



CORE TO  
COLLEGE

## DEVELOPING AND USING A DEFINITION OF COLLEGE AND CAREER READINESS

A PRACTICAL PRIMER FOR STATES



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# Developing and Using a Definition of College and Career Readiness: A Practical Primer for States

## Introduction

**A**t the height of America’s industrial age, there were plenty of jobs to be found in factories, fields, mines and other locations and industries that relied more on physical capabilities than intellectual skill. These jobs didn’t require a high level of education. Today, however, fewer such jobs exist. Even in factories, fields and mines, opportunities look different, and use more technology and automation requiring a different set of skills, including the ability to analyze output and monitor for quality and efficiency. According to one report, by 2025, almost two-thirds of the jobs in America will require an education beyond a high school diploma.<sup>1</sup> In order to remain economically competitive among other nations, the U.S. must increase the education attainment of its population.

With this shift in the labor market, more of America’s students need to achieve some level of postsecondary education to be prepared adequately for success after high school. This doesn’t necessarily mean a four-year degree for everybody. But some form of education and training beyond a high school diploma – an apprenticeship program, an associate’s degree, a certificate program, a corporate management training program or a four-year degree – is the key to a successful future for today’s students in the workplace and in society.

To **succeed** in these postsecondary education experiences, students have to be **ready** and prepared for them. It is the responsibility of each state to structure the K-12 education experience in a way that allows every student to graduate from high school with the knowledge and skills required to successfully complete a postsecondary education<sup>2</sup> and to enter and succeed in a family-sustaining career – in other words, to ensure that each student is “college and career ready.”

But what does college and career ready actually mean? How can defining it empower students, communities, states and the nation to become more economically prosperous and create the conditions for a better quality of life? How can a definition be used to drive policy, strategies and actions that lead to improved student achievement and advanced education attainment? What role can the Common Core State Standards (CCSS) and the aligned assessments (designed to define and assess the knowledge and skills students should have within their K-12 education careers) play in such a definition?

This paper and the companion worksheets found in Appendix A are intended to serve as a practical resource for states and interested stakeholders to (1) understand what college and career ready means; (2) develop a statewide definition, and (3) use this definition to inform public policy and specific strategies and actions that will ensure that students are well-positioned to succeed beyond high school. The guide is an outgrowth of the Core to College Network – 12 states working on aligning their K-12 and

higher education policies to prepare for the CCSS and forthcoming assessments – but the lessons contained in this guide apply to the entire nation.

This guide is organized into the following sections:

**I. Defining College and Career Readiness: Frameworks and Elements**

*If your state is brand new to this policy issue, you may want to start by reading this section. It discusses why defining college and career readiness is important and identifies the critical components of a comprehensive definition.*

**II. Engaging Stakeholders in Developing a Readiness Definition**

*If your state is ready to create or revise a statewide definition, you may want to start with this section. It describes some approaches that can be used to develop a high-quality definition of college and career readiness.*

**III. Using a College and Career Readiness Definition to Achieve Results**

*If your state already has a high-quality definition, then this section will help you identify some of the ways the definition can be used to advance the work your state is doing to ensure that students are ready for college and careers.*



## Section I: Defining College and Career Readiness: Frameworks and Elements

### Why define college and career readiness?

**D**efining college and career readiness should not be pursued simply to say, “We did it.” There should be an underlying logic to why a definition is desirable and how it can be used. The economic imperative is the best foundation on which to launch the work. If we are to maintain and enhance the economic vitality and competitiveness of our community, our state and our nation, we need more people to reach higher levels of learning.

The financial and economic benefits of increased postsecondary education are tremendously compelling. This is true both in terms of the benefit to the individual and the long-term benefit to the economy, but also in terms of the short-term increased productivity of public investments in education.<sup>3</sup> Our economy requires more people with postsecondary credentials that have market value, and with the skills and abilities to succeed in careers that require training and continuous learning in order to advance. To achieve this goal, we have to leverage every element of the P-20 education continuum and ensure that it operates at its maximum capability, and we must dismantle obstacles that prevent students from continuing success from pre-school to postsecondary completion. ***A college and career readiness definition*** gives us a strong shared understanding of necessary outcomes of the K-12 system that can then provide the starting point for individuals entering postsecondary education programs and career paths. It also forms the basis for a goal which all elements of our society can rally behind.

The economic imperative creates a strong argument for the need to define college and career readiness. But a definition also serves as the foundation for strong cross-sector strategic planning to ensure that more students ultimately meet the readiness definition and are prepared to effectively make the transition from high school to their next learning experience – postsecondary education or a career. The definition can drive discussions jointly among the entire P-20 continuum of stakeholders anchored in the question, “What do we need to do to achieve our goal of increasing the number of students who reach our definition of college and career readiness?” It can form the North Star of a set of strategies that align K-12 and higher education and promote a more fluid and seamless transition from high school to the workplace or the postsecondary institution. These include higher education placement policies, accountability systems, teacher preparation and professional development programs, and high school reform efforts aligned to the definition. The definition can serve as a unifying framework for a multitude of strategies and actions that ultimately can lead to better outcomes for students and for the quality of life and prosperity of a community and state.

## Why now?

This work must be approached with a sense of urgency. There may never again be the confluence of circumstances, policies, funding and momentum able to drive the nation’s education system to becoming a more effective engine of economic vitality. The implementation of the Common Core State Standards, new assessments aligned to the standards, new accountability systems, teacher and principal evaluation initiatives combined with increasing attention to improving college completion, and new approaches to using technology in the classroom all hold promise for propelling the knowledge infrastructure of the nation forward. If we do not act now, we may miss this pivotal moment to influence and create lasting change. Concurrent implementation of these approaches can be challenging, and can engender opposition, but a continued adherence to the current state will only result in extending the frustration and dysfunction of the status quo.

## Aren’t all high school graduates college and career ready?

The truth is, they aren’t. In fact, a long-standing point of frustration for businesses and the higher education community is that a high school diploma signifies so little – not much more than a certificate of attendance, according to those who have studied high school courses and graduation requirements.<sup>4</sup> It was for this reason that Achieve, Inc., an organization jointly led by a group of bipartisan governors and CEOs of Fortune 500 corporations, launched the American Diploma Project in 2001. The Project aimed to identify factors and strategies that would strengthen the significance of the high school diploma, giving it real meaning in the world of postsecondary education and the workforce.

*“This [work] really is essential. If we don’t do it this time, it’s unlikely to happen again in our lifetimes.”*

*-- Allison Jones, PARCC/Achieve, at Core to College Convening, May 6-8, 2013, Denver, CO*

Interestingly, Achieve’s research in this area provided the first credible evidence that both higher education and the business community value the same knowledge and skills from high school graduates. After analyzing workforce demand data, Achieve researchers interviewed front-line supervisors to understand the knowledge and skills needed by employees to succeed in family-sustaining entry-level jobs. Similarly they interviewed college and university faculty who taught first-year college courses to understand their expectations for what students needed to know and be able to do. Researchers also examined samples of tasks and assignments to better understand what expectations existed. This extensive research led to the development of the college and workplace readiness benchmarks.<sup>5</sup>

Here’s what we know about *current* high school graduates: There is a significant gap between meeting the criteria to be *admitted* into college and meeting the criteria to be *ready* for college. The National Center for Public Policy in Higher Education (NCPPE) and the Southern Regional Education Board (SREB) identified the “readiness gap” to be as high as 75 percent for two-year colleges; and 60 percent for all freshmen.<sup>6</sup> Colleges typically place these students **in developmental education courses** to

improve their English and math skills and position them for success in credit bearing courses. This practice can be wasteful of time and money and discouraging, in certain cases leading students to drop out before they transition into higher level courses.<sup>7</sup> This leads to a downward economic cycle in which nobody wins: College dropouts and their families lose hard-earned tuition money, and federal and state financial aid dollars go to waste when their beneficiaries drop out of school.

Students who attempt to go directly into the workforce have similar readiness gaps. Indeed, 42 percent of employers rate high school graduates as “deficient” in their preparation for entry-level jobs.<sup>8</sup> This is largely due to the vast misalignment between the expectations of the business community and the knowledge and skills of the people applying for jobs. Positions remain unfilled because both current workers and high school graduates lack the knowledge and skills necessary to be successful employees.

Examples of State College and Career Readiness Definitions	
Colorado	<a href="http://www.cccs.edu/Docs/SBCCOE/Agenda/2012/02February/020812-WrkSessionAgnda IF ConsentAgnda VID - Postsecondary and Workforce Ready Diploma Endorsement.pdf">http://www.cccs.edu/Docs/SBCCOE/Agenda/2012/02February/020812-WrkSessionAgnda IF ConsentAgnda VID - Postsecondary and Workforce Ready Diploma Endorsement.pdf</a>
Florida	<a href="http://www.fldoe.org/fcs/collegecareerreadiness.asp">http://www.fldoe.org/fcs/collegecareerreadiness.asp</a>
Georgia	<a href="http://www.doe.k12.ga.us/Curriculum-Instruction-and-Assessment/CTAE/Documents/CCRPI-Counselors-060512.pdf">http://www.doe.k12.ga.us/Curriculum-Instruction-and-Assessment/CTAE/Documents/CCRPI-Counselors-060512.pdf</a>
Kentucky	<a href="http://www.cpe.ky.gov/NR/ronlyres/78B3510A-CECD-4157-8F20-3E3499707DAA/0/CollegeReadinessIndicators.pdf">http://www.cpe.ky.gov/NR/ronlyres/78B3510A-CECD-4157-8F20-3E3499707DAA/0/CollegeReadinessIndicators.pdf</a>
Massachusetts	<a href="http://www.mass.edu/library/documents/2013College&amp;CareerReadinessDefinition.pdf">http://www.mass.edu/library/documents/2013College&amp;CareerReadinessDefinition.pdf</a>
Minnesota	<a href="http://www.collegeready.umn.edu/resources/documents/CRC_booklet-May_2011.pdf">http://www.collegeready.umn.edu/resources/documents/CRC_booklet-May_2011.pdf</a>
Texas	<a href="http://www.sreb.org/page/1516/college_and_career_readiness_in_texas.html">http://www.sreb.org/page/1516/college_and_career_readiness_in_texas.html</a>

## What does College and Career Ready Really Mean?

Many organizations and experts have been working to identify the key elements of what college and career readiness actually means.<sup>9 10</sup> Among the most notable efforts and resources are the following:

1

***The Common Core State Standards Initiative:*** This collaboration of states led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA) set out to articulate and define common standards in English language arts and mathematics that would reflect “the knowledge and skills that our young people need for success in college and careers.”<sup>11</sup> The CCSS have been adopted by 46 states and the District of Columbia, and are designed to ensure that students graduating from high school are prepared to be successful in entry-level credit-bearing courses in two- or four- year college programs or enter the workforce. These grade-by-grade expectations for students provide not only the foundation for K-12 teaching and learning, but also anchor state efforts to better signal what students need to know and be able to do once they leave high school and pursue college or work. That said, the CCSS reflect only English language arts and mathematics knowledge and skills.

*Partnership for Assessment of Readiness for College and Careers (PARCC) and the SMARTER Balanced Assessment Consortium:*

The two consortia of states currently developing Common Core-aligned assessments from elementary to high school are both actively and deeply engaged in the work of developing definitions of, and setting performance expectations around, indicators of college and career readiness. Ultimately the purpose of these tests is to determine whether students have mastered the Common Core State Standards. So for those assessments administered in high school, the goal is that a student's performance can indicate readiness to successfully transition to college and careers.

PARCC's policy-level performance level descriptors and Smarter Balanced's achievement level descriptors are meant to provide the conceptual framework for measuring college readiness. PARCC establishes a College and Career Ready Determination standard that will be used to guide its assessment development work and the setting of cut scores on its forthcoming assessment.<sup>12</sup> PARCC articulates:

- Students who earn a College and Career Ready Determination in English language arts/literacy will have demonstrated the academic knowledge, skills and practices necessary to enter directly into and succeed in entry-level, credit-bearing courses in College English Composition, Literature, and technical courses requiring college-level reading and writing.
- Students who earn a College and Career Ready Determination in mathematics will have demonstrated the academic knowledge, skills and practices necessary to enter directly into and succeed in entry-level, credit-bearing courses in College Algebra, Introductory College Statistics, and technical courses requiring an equivalent level of mathematics.

PARCC goes on to state that a student who reaches the College and Career Ready Determination should have a 0.75 probability of earning college credit in the entry-level credit bearing courses by attaining a grade of at least C or its equivalent.

Similarly Smarter Balanced has developed policy-level descriptors as follows:<sup>13</sup>

- Students who perform at the College Content-Ready level in English language arts/literacy demonstrate reading, writing, listening, and research skills necessary for introductory courses in a variety of disciplines. They also demonstrate subject-area knowledge and skills associated with readiness for entry-level, transferable, credit-bearing English and composition courses.
- Students who perform at the College Content-Ready level in mathematics demonstrate foundational mathematical knowledge and quantitative reasoning skills necessary for introductory courses in a variety of disciplines. They also demonstrate subject-area

knowledge and skills associated with readiness for entry-level, transferable, credit-bearing mathematics and statistics courses.

3

### **Educational Policy Improvement Center:**

David Conley of the University of Oregon is one of the most cited authorities on the issue of college readiness. He states, “A student who is ready for college and career can qualify for and succeed in entry-level, credit-bearing college courses leading to a baccalaureate or certificate, or career pathway-oriented training programs without the need for remedial or developmental coursework.” His work and the work of the Educational Policy Improvement Center (EPIC) have led to the development of a comprehensive model for college readiness known as the “think – know – act – go” model.<sup>14</sup>

Conley describes four keys of college readiness as follows:

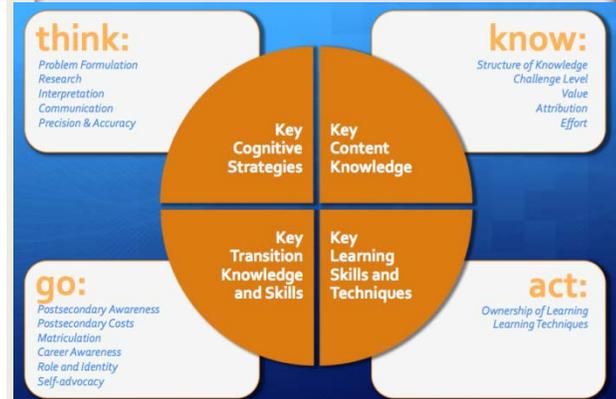
#### **A. Key Cognitive Strategies (Think)**

In this category, Conley includes the ways of thinking that allow students to succeed in college-level work and that are also important in career learning settings. These include:

- **Problem formulation:** The student has a clear understanding of how to define a problem and how to approach addressing the problem. This includes the ability to identify and construct hypotheses, and identify and implement strategies appropriate to exploring the hypothesis.
- **Research:** The student can identify the appropriate research, information or data needed to address a particular problem. This includes the ability to utilize research methods appropriate to a particular topic and to identify and collect appropriate sources of data and information in an organized way.
- **Interpretation:** The student can synthesize research to make well-reasoned conclusions addressing the problem. The student can analyze competing and conflicting descriptions

### *Deeper Learning Aligns with College and Career Readiness*

*The William and Flora Hewlett Foundation describes deeper learning competencies as follows:*



*student success in higher education, the workplace and life. The Foundation has set a goal that at least 15 percent of public school students will be assessed for mastery of these skills by 2017*

*– From “Deeper Learning Competencies – April 2013” William and Flora Hewlett Foundation.*

of an event or issue and can evaluate the strengths and flaws in each description and any commonalities among or distinctions between them.

- **Communication:** The student can create a clear, organized and effective message summarizing the problem and solution. This means the student is able to organize sources and findings, and use logic to develop the message. The student can create a final work product (e.g., paper, memo) that is well-organized and logically sequenced, and follows appropriate writing conventions.
- **Precision and accuracy:** The student knows what type of precision is appropriate to the problem and the subject area and uses precision appropriately to reach correct conclusions in the context of the task or subject area at hand. This includes the ability to revise working drafts of documents to ensure increasing precision and accuracy, and to perform the necessary verification of facts and information.

#### **B. Key Content Knowledge (Know)**

This category includes the tools that a student uses to study and to be responsible for his or her own ongoing learning. Students must gain expertise in subject matter and be able to apply terminology, facts and concepts to new context. Student also must possess the understanding that he or she can become knowledgeable about any subject, and that learning and intelligence can be changed through increased effort that is under one's own control.

#### **C. Key Learning Skills and Techniques (Act)**

This category includes characteristics like persistence, student self-awareness, motivation, help seeking, progress monitoring and self-efficacy. It also includes learning skills like technology proficiency, memorization and recall, collaborative learning, time management, test-taking, note-taking and strategic reading.

#### **D. Key Transition Knowledge and Skills (Go)**

This category includes skills necessary to successfully adjust to and perform within the postsecondary education context. Students are able to explore options, identify and obtain resources, complete the steps necessary to engage in a postsecondary path, and adapt to the challenge posed by a new environment. This category includes such things as an understanding of the postsecondary education system, knowledge of the norms, values and conventions of the college context, and human relations skills necessary to cope within the system (e.g. collaboration, working in teams, etc.). Also included are such things as knowledge of applications processes, financial aid, placement requirements, etc.

4

**ConnectEd – The California Center for College and Career:** Another good framework is the one presented by ConnectEd in *College and Career Readiness: What Do We Mean?*<sup>15</sup> The ConnectEd framework identifies four critical components of readiness:

- A. Knowledge:** The basic understanding of the content, discipline, context or idea.
- B. Skills:** The ability to acquire knowledge and to use it in multiple ways.
- C. Productive Dispositions and Behaviors:** The ability to understand one’s own role in acquiring and using knowledge and skills.
- D. Educational, Career and Civic Engagement:** Applying and using knowledge, skills and dispositions for engaging in life.

These components are applicable in three identified domains of learning. These domains are (1) the academic domain, which includes learning relative to critical disciplines (e.g. English/language arts, math, etc.), (2) the technical domain, which includes learning relative to specific technical activities and fields, and (3) the 21<sup>st</sup>-century domain, which includes learning relative to skills such as problem-solving, critical thinking, working in groups, effective communication, innovation and creativity, and using technology.

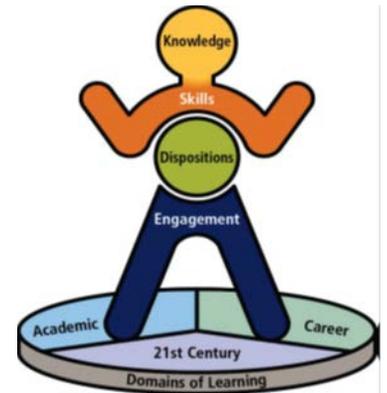
ConnectEd clarifies that these four components and three domains are not discrete learning experiences; rather, good instruction and learning experiences integrate all components together. This signals a need for increased attention to integrated learning approaches, as well as deeper learning strategies.

5

**Innovation Lab Network:** The Innovation Lab Network (ILN) is a group of 10 states convened by the CCSSO that are working to transform their K-12 education systems in ways that focus on student-centered learning. The work is guided by six design principles as follows:

1. World-class knowledge and skills
2. Performance-based learning
3. Personalized learning
4. Comprehensive systems of learning support
5. Anytime, everywhere opportunities
6. Student agency

As part of the work, the states have developed a framework<sup>16</sup> for a college, career and citizenship readiness definition that includes a variety of elements under the headings of a) Knowledge, b) Skills and c) Dispositions. The following table illustrates these elements.



Knowledge	Skills	Dispositions
<p><i>Mastery of rigorous content and the facile application or transfer of what has been learned to complex and novel situations</i></p> <ul style="list-style-type: none"> <li>• Common Core State Standards</li> <li>• Career &amp; Technical Education</li> <li>• Other Content Areas &amp; Essential Literacies</li> <li>• Global Competence</li> <li>• Applied Knowledge</li> </ul>	<p><i>The capacities and strategies that enable students to learn and engage in higher order thinking, meaningful interaction planning for the future</i></p> <ul style="list-style-type: none"> <li>• Critical thinking</li> <li>• Problem solving</li> <li>• Working collaboratively</li> <li>• Communicating effectively</li> <li>• Metacognition &amp; self-awareness</li> <li>• Study skills &amp; learning how to learn</li> <li>• Time/goal management</li> <li>• Creativity &amp; innovation</li> </ul>	<p><i>Socio-emotional skills or behaviors that associate with success in college, career and citizenship</i></p> <ul style="list-style-type: none"> <li>• Agency (Self-efficacy)</li> <li>• Initiative</li> <li>• Resilience</li> <li>• Adaptability</li> <li>• Leadership</li> <li>• Ethical behavior &amp; civic responsibility</li> <li>• Social awareness &amp; empathy</li> <li>• Self-control</li> </ul>

The network also suggests an overarching statement that states can adapt to their local contexts as follows:

*“College, Career, and Citizenship readiness” means that students exit high school qualified to enroll in high-quality postsecondary opportunities in college and career, including the U.S. Military, without need for remediation and equipped with the knowledge, skills and dispositions to make that transition successfully. This means that all students must graduate having mastered rigorous content knowledge and demonstrated their ability to apply that knowledge through higher-order skills including but not limited to critical thinking and complex problem solving, working collaboratively communicating effectively and learning how to learn. Student must also be prepared to navigate the pathways and systems that will allow them to gain access to positive postsecondary opportunities.*

**6** **Career Readiness Partner Council (CRPC):** The CRPC is a collaborative of organizations that work together to provide greater emphasis on the career side of college and career readiness. In their publication, *Building Blocks for Change: What it Means to be Career Ready*,<sup>17</sup> CRPC provides a description of a career-ready person (see sidebar).

The CRPC framework for career readiness includes two components:

**A. Academic and Technical Knowledge and Skills:** Career readiness requires proficiency in a broad range of core academic subjects as reflected in rigorous, internationally benchmarked standards – like the Common Core State Standards in English language arts and mathematics. It also includes proficiency in technical skills that align to a particular chosen career field, and could include deep learning in specific technical subjects. Students must be able to apply academic and technical knowledge in the context of a career field.

**B. Employability Knowledge, Skills and Dispositions:** Career readiness requires students to have an “understanding of their interests, talents and weaknesses and a solid grasp of the skills and disposition necessary for engaging in today’s fast-paced, global economy.” These include:

- ⇒ Goal setting and planning
- ⇒ Managing transitions from school to work and back again, and from one occupation along a career pathway to another
- ⇒ Clear and effective communication skills
- ⇒ Critical thinking and problem solving
- ⇒ Working productively in teams and independently
- ⇒ Effective use of technology
- ⇒ Ethical decision-making and social responsibility

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***Definition of Career Ready:***

*A career-ready person effectively navigates pathways that connect education and employment to achieve a fulfilling, financially-secure and successful career. A career is more than just a job. Career readiness has no defined endpoint. To be career ready in our ever-changing global economy requires adaptability and a commitment to lifelong learning, along with mastery of key knowledge, skills and dispositions that vary from one career to another and change over time as a person progresses along a developmental continuum, and which are inter-dependent and mutually reinforcing.*

-----Career Readiness Partner Council. “Building Blocks for Change: What it Means to be Career Ready”. (2012).

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### **College Readiness for Non-Traditional Students**

While high school graduates will continue to form a large percentage of entering college students, aggressive goals for improving U.S. education attainment cannot be reached without helping more adults get credentials and degrees with workplace value. While a college and career readiness definition should be meaningful and applicable to anyone, non-traditional adult students (students who have been out of high school for one year or longer) may merit special consideration in recognition of their particular circumstances. A good discussion of this topic can be found in a new report by Sue Pimentel prepared for the U.S. Department of Education Office of Vocational and Adult Education entitled [“College and Career Readiness Standards for Adult](#)

[Education.](#)” This report presents a set of math and English/language arts standards for adult education programs that are based on the Common Core State Standards, but also focused on the most significant education pursuits of returning adults. As states address the readiness definition issue, they may want to pay special attention to the integration of [Adult Basic Education \(ABE\) programs](#) into the discussion, and to how to improve the speed and success with which adults make the transition from ABE into college programs. The Breaking Through initiative of Jobs for the Future is designed to address policy issues relevant to helping low-skilled adults acquire skills necessary to succeed in postsecondary education and attain credentials that lead to family sustaining jobs. [The Breaking Through Practice Guide](#) provides a number of strong examples and suggested strategies for addressing the needs of this population.

## Elements of Strong College and Career Readiness Definitions

Every state’s definition of college and career readiness likely will contain elements that are similar and others that differ. The Education Commission of the States has developed a unique document that discusses three options that states have taken for approaching defining college readiness.<sup>18</sup> In the end, states must migrate to approaches that fit their own circumstances and meet their own needs. At a minimum, all definitions likely will contain references to academic standards and assessment scores.

The following is a description of a number of elements that can be found in many strong state definitions of college and career readiness.

- A. Standards:** Fundamental to a high-quality definition of college and career readiness is a description of standards, the description of what students should know and be able to do in major subjects and in all grades. Standards that are considered to meet the test of supporting a college and career ready definition are typically developed in consultation with higher education and the business community. A number of components could formulate the underlying standards.
- **Common Core State Standards (or similarly rigorous standards):** As previously stated, the Common Core State Standards are designed explicitly to reflect the skills and knowledge in English language arts and mathematics that constitute college and career readiness.<sup>19</sup> **The Common Core State Standards (or standards of equal rigor) form the essential foundation of a state-level definition of college and career readiness.** As multiple states share the inclusion of the CCSS as the fundamental component of their definition of readiness, students and parents across the country have a clear, consistent and common signal of the minimum expectations that will drive success.

The CCSS also address certain cognitive strategies like those outlined in Conley’s framework.<sup>20</sup> Conley (who co-chaired the CCSS Validation Committee) points to the following specifications in the CCSS as supporting key cognitive strategies like problem

formulation, research ability, information interpretation, communication, and precision and accuracy (see the table below.)

How do the Common Core State Standards address key cognitive strategies?	
<b>The Mathematics standards require:</b>	<ol style="list-style-type: none"> <li>1. Making sense of problems and persevering in solving them</li> <li>2. Reasoning abstractly and quantitatively</li> <li>3. Constructing viable arguments and critiquing the reasoning of others</li> <li>4. Modeling with mathematics</li> <li>5. Using appropriate tools strategically</li> <li>6. Attending to precision</li> <li>7. Looking for and making use of structure</li> <li>8. Looking for and expressing regularity in repeated reasoning</li> </ol>
<b>The English Language Arts standards require:</b>	<ol style="list-style-type: none"> <li>1. Analyzing how and why individuals, events, and ideas develop and interact over the course of a text</li> <li>2. Integrating and evaluating content presented in diverse formats and media, including visually and quantitatively, as well as in words</li> <li>3. Reading and comprehending complex literary and informational texts independently and proficiently</li> <li>4. Developing and strengthening writing as needed by planning, revising, editing, rewriting or trying a new approach</li> <li>5. Using technology, including the Internet, to produce and publish writing and to interact and collaborate with others</li> <li>6. Conducting short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation</li> </ol>

- **Standards in other disciplines:** Most experts would suggest that competency in English language arts and mathematics is necessary but not the whole of what a college- and career-ready education should include. Most states recognize the other content areas are also important.

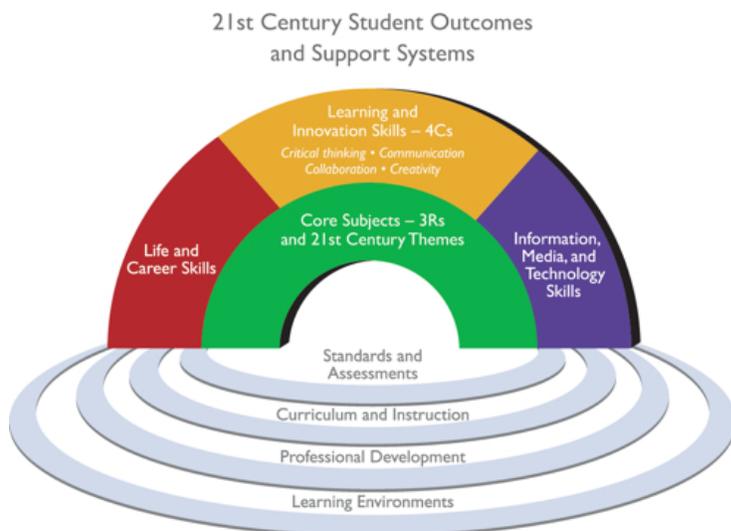
The National Research Council, the National Science Teachers Association, the American Association for the Advancement of Science and Achieve collaborated on the development of Next Generation Science Standards.<sup>21</sup> Twenty-six states are involved in this work, which is intended to lead to high-quality rigorous model standards in four domains: physical sciences; life sciences; earth and space sciences; and engineering, technology and applications of science.

The CCSSO engaged 15 professional organizations covering the areas of civics, economics, geography and history in order to produce the publication *Vision for the College, Career, and Civic Life (C3) Framework for Inquiry in Social Studies State Standards*.<sup>22</sup> This document is the precursor to a larger set of model social science standards, and is intended to serve as a guide to states in enhancing their K-12 standards in the four disciplines.

Some states have adopted other standards in disciplines like the arts, financial literacy and physical fitness to round out the standards components of their college and career readiness definitions.

- **Standards for skills:** There are a number of organizations that focus on defining standards for other skills that go beyond the purely academic. Notable in this category is the Partnership for 21<sup>st</sup> Century Skills. Its publication, *21<sup>st</sup> Century Readiness for Every Student: A Policymaker’s Guide*,<sup>23</sup> provides useful and practical information supporting the notion that students must be able to learn, apply and adapt in all subjects and that higher-order thinking skills must be incorporated into the teaching of all subjects. Such skills include critical thinking and problem solving, communication, collaboration and creativity and innovation. The guide builds from the Partnership’s Framework for 21<sup>st</sup> Century Learning,<sup>24</sup> which proposes a student outcomes framework that includes the following:

- ⇒ Core Subject Knowledge and 21<sup>st</sup> Century Themes
- ⇒ Life and Career Skills
- ⇒ Learning and Innovation Skills
- ⇒ Information, Media and Technology Skills



Another excellent resource is the literature review prepared by the University of Chicago Consortium on Chicago School Research entitled *Teaching Adolescents To Become Learners: The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review*.<sup>25</sup> This guide provides extensive discussion of the research and best practices in developing non-cognitive skills in students – skills that are recognized as important to success in college and careers.

- **Common Career Technical Core:**<sup>26</sup> Developed by the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), with the participation of 42 states and the District of Columbia, the Common Career Technical Core includes standards for 16 career clusters and corresponding career pathways ranging from the Agriculture, Food & Natural Resources Career Cluster to the Transportation, Distribution & Logistics Career Cluster. The Core also includes a set of overarching career-ready practices that apply to all programs. The career-ready practices are:
  - ⇒ Act as a responsible and contributing citizen and employee
  - ⇒ Apply appropriate academic and technical skills
  - ⇒ Attend to personal health and financial well-being
  - ⇒ Communicate clearly, effectively and with reason

- ⇒ Consider the environmental, social and economic impact of decisions
- ⇒ Demonstrate creativity and innovation
- ⇒ Employ valid and reliable research strategies
- ⇒ Utilize critical thinking to make sense of problems and persevere in solving them
- ⇒ Model integrity, ethical leadership and effective management
- ⇒ Plan education and career path aligned to personal goals
- ⇒ Use technology to enhance productivity
- ⇒ Work productively in teams while using cultural/global competence

**B. Assessment scores:** Assessments are necessary to determine the extent to which a student has mastered content and other knowledge and skills. State definitions of college and career readiness often use assessment scores as a primary element. Among the assessments being used or considered currently:

- **Common Core assessment consortia:** Both the PARCC and the Smarter Balanced consortia are developing assessments that assess whether students meet a standard of college and career readiness. As explained above, both consortia have engaged in extensive discussions among member states to arrive at performance or achievement level descriptors that reflect a definition of college and career ready. These descriptors will inform the setting of cutoff scores that will differentiate levels of performance.



The PARCC assessment will include five performance levels. Students scoring at Level 4 or above will be considered to meet the definition of college readiness in the particular subject. PARCC will determine cutoff scores in summer 2015, after the first full year of

implementation.

Smarter Balanced will establish four achievement levels. Level 3 performance will be considered college ready if a student shows evidence of continued learning in Grade 12. Level 4 will be college ready without a 12<sup>th</sup> grade requirement. Preliminary cutoff scores will be set after piloting the Smarter Balanced assessments in spring 2014. Smarter Balanced will validate these scores in spring 2015 after full implementation.

- **Major college admission testing services – ACT and SAT:** The ACT and SAT tests are the most common assessments used by colleges to evaluate the academic knowledge and aptitudes of potential college students. Both ACT and the College Board (which administers the SAT) have conducted extensive studies on how their tests align to notions of college readiness. ACT has established a set of college readiness

benchmarks<sup>27</sup> that the organization suggests reflect minimum ACT scores that give students a high probability of success in credit-bearing college courses. These benchmarks also identify score levels on the ACT Explore and Plan assessments that can serve as early warning indicators relative to a student's readiness. Similarly, the College Board has established benchmarks for the SAT as well as the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) and ReadStep assessments.<sup>28</sup> Many states, including Colorado, Florida, Tennessee, Kentucky, Indiana and Ohio, have used these test scores in current definitions of what constitutes remediation-free levels of placement for higher education.

- ***State achievement or end-of-course test:*** In 2011, CCSSO reported that 13 states had some level of operational end-of-course exams with another nine states in the process of developing such exams.<sup>29</sup> States view these exams as having several advantages over more traditional comprehensive subject exams including improved accountability for students, teachers, buildings and districts, better alignment between assessments and course content, improved consistency in course content across high schools, and better college readiness outcomes. States are using such exams as one of many factors in setting course grades, graduation requirements, and in definitions of college and career readiness.
- ***Advanced Placement (AP) and International Baccalaureate (IB) tests:*** Advanced Placement (AP) courses and their accompanying exams and the International Baccalaureate (IB) program and its test are increasingly found in high schools that have a deliberate college readiness focus. The College Board, which develops AP courses and administers the AP exams, has conducted a number of studies that show AP exam performance being highly related to future college success.<sup>30</sup> Similarly research conducted by EPIC showed strong alignment between the standards that underlie the IB program and the Knowledge and Skills for University Success (KSUS) standards developed in 2003. A good example of how such tests can be incorporated into college readiness definitions can be seen in Indiana's requirements for Core-40 with Academic Honors Diploma. The Indiana requirements allow students to earn the Academic Honors diploma by completing a number of activities beyond the minimum Core-40 requirements including earning four credits in two or more AP courses and taking the related exams or earning four credits in IB courses and taking the related exams.<sup>31</sup>
- ***College placement testing:*** Many higher education institutions use the ACT's COMPASS or ASSET and College Board's Accuplacer assessments to inform placement decisions for entering students. Both ACT and the College Board have established college readiness scores for the various components of these assessments. Recent research by the Community College Research Center calls into question whether these tests are really effective at predicting a student's success in college.<sup>32</sup> Relying exclusively on such assessments could result in misplacement of students. However, because of the long

history of usage of these exams, they are found in a number of states' college and career readiness definitions.

- **General Educational Development (GED) test:** The American Council on Education has joined with Pearson in an effort to develop a new General Educational Development (GED) test to reflect college and career readiness knowledge and skills.<sup>33</sup> The test will be aligned to the CCSS. A new assessment is expected to be launched in 2014. The new assessment will be solely computer-administered. If the test is of sufficiently high quality, it could become a more accepted determinant of college readiness for non-traditional students who have not completed high school.
- **Performance assessments:** Some states are looking beyond standardized multiple-choice tests and exploring the possibility of assessing student knowledge and skills through more extensive performance assessment processes. A performance assessment is one where students must “construct an answer, produce a product or perform an activity” instead of selecting from among various options.<sup>34</sup> Some states already include constructed-response and essay questions as part of their regular grade-level assessment systems. The complexity of these types of assessments raises issues of cost and validity, but there is belief that such assessments are much more aligned to college and career readiness knowledge and competencies.

Perhaps the most aggressive implementation of performance assessments used in evaluating high school students is taking place in New Hampshire.<sup>35</sup> Over the course of the next four years, New Hampshire will proceed toward a comprehensive use of performance assessments to evaluate student learning (as well as help inform improvements to teaching). The state defines performance assessments as, “multi-step, complex activities with clear criteria, expectations, and processes that enable students to interact with meaningful content and that measure the depth at which students learn content and apply complex skills to create or refine an original product and/or solution.”

Connecticut's Academic Performance Testing program provides students, schools and districts with a richer portrayal of student knowledge based on complex performance assessments. The Ohio Performance Assessment Pilot program is a part of Ohio's federal Race to the Top grant. Teachers involved in the pilot program use specified learning tasks as part of their instruction. Students are assessed using a comparable, but different assessment task. Teachers are involved in grading the assessments.

There are two important considerations when using assessment scores as part of a college and career readiness definition. The first is to avoid making assessments and placement policies “one-shot deals.” Research by WestEd shows that too often students see the assessment and placement processes not as events for which they should continuously prepare in high school, but rather as single disconnected events that have huge consequences.<sup>36</sup> The second

consideration is for some amount of leeway in establishing the meaning of a cutoff score. Cutoff scores should not be seen as representing a bright line of demarcation between “ready” and “not ready.” Research conducted by the Community College Research Center shows that in one community college system, in excess of 40 percent of the students placed in either remedial math or remedial English could have earned a grade of “C” or better in a gateway, credit-bearing math or English course.<sup>37</sup> The latest and best thinking on the subject suggests that placement in a gateway college-level course should be the default placement for many more students, instead of remedial courses, and that appropriate academic supports should be integrated into gateway courses as a co-requisite.<sup>38</sup>

States also may want to accommodate the use of multiple assessments in their college and career readiness definitions. There exist a number of concordance tables that set equivalencies between tests like the SAT and ACT as well as Compass and Accuplacer. It is planned that similar equivalencies will be defined between the PARCC and Smarter Balanced assessments.



**C. Course-taking requirements and Grade Point Averages (GPAs):** Research shows that there is

a strong relationship between rigorous course-taking in high school and future success in college.<sup>39</sup> For this reason many states have adopted requirements for course-taking as a component of their college readiness definitions. Indiana’s Core 40 requires four or more years of English, three or more years of mathematics (with additional requirements), three or more years of natural science, and three or more years of social science and history.<sup>40</sup> It has been suggested that some students who reach a college-ready level on an assessment and complete their required coursework by their junior year may pay less attention to academics during their senior year. This problem can be addressed in the context of a state’s course-taking requirements. For example, Indiana requires that “students must take a math or quantitative reasoning course each year in high school.”<sup>41</sup>

Recent research by the Community College Research Center found that high school GPAs can be useful in predicting a students’ college success as measured by credit accumulation or college GPA.<sup>42</sup> This research makes the case that effective placement policies should probably include multiple measures to ensure greater accuracy in placement decision-making.

Some states offer students the opportunity to participate in capstone projects that require them to demonstrate skills and competencies in researching, integrating, writing, presenting and synthesizing over many months. The completion of these courses is a way for students to demonstrate key cognitive strategies as well as mastery of content. One component of Virginia’s

college- and career-ready initiative is the implementation of capstone courses in English and mathematics.<sup>43</sup>

- D. Earning college credit (dual enrollment and early college):** Perhaps there is no better way to gauge a student’s readiness for college than for the student to actually succeed in a credit-bearing college course. Typically students earn college credit while in high school either in an early college high school setting, or through a dual enrollment program that allows students to earn both high school and college credit for the same course. Increasingly, states are pursuing aggressive dual enrollment policies that allow more students greater access to high-quality college courses while still enrolled in high school. The publication by Jobs for the Future entitled *Using Dual Enrollment Policy to Improve College & Career Readiness: A Web Tool for Decision Makers* provides examples of successful dual enrollment programs in North Carolina, Mississippi, Missouri, Kentucky, Virginia, Maine and Wisconsin.<sup>44</sup>

Similarly Jobs for the Future’s publication *A Policymaker’s Guide to Early College Designs: Expanding a Strategy for Achieving College Readiness for All* provides a number of good examples of states that have established significant early college initiatives.<sup>45</sup> The publication also includes useful information for any state interested in pursuing such a strategy.



## Section II: Engaging Stakeholders in Developing a Readiness Definition

**T**he most effective definitions of college and career readiness are developed collaboratively among multiple interest groups within a state. The more stakeholders who have buy-in to the contents of a definition, the more likely it is they will bring their resources to bear in supporting acceptance of the definition and in using the definition to undergird strategies to improve student achievement. It is important for definitions to reflect the collective wisdom of various interests in order to foster widespread ownership and support, ensuring that students are college and career ready.

### **Whom to involve**

To develop a definition that will have widespread acceptance, states are wise to engage representatives from many stakeholder groups in the development and review process at key stages. The imperative to engage stakeholders across sectors is logical: A definition of college and career readiness has obvious implications for how the K-12 system needs to focus its efforts; similarly, postsecondary and business leaders have strong incentives to articulate clearly what it takes to succeed in their organizations. Massachusetts formed K-12 and higher education advisory committees that worked separately but regularly interacted to compare notes. The Bay State also created multiple opportunities for in-person and written feedback on drafts and key elements of the policy as it was developed and provided a strong, supportive arena for successful approval and implementation. While labor-intensive, this approach resulted in a definition that can be embraced as being based on the state's collective wisdom. Suggested partners to involve in a definition development process include:

- A. K-12 education:** As the sector primarily responsible for preparing students for college or the workforce, the K-12 education system is at the center of the goal of helping more students reach a standard of college and career readiness. Greater clarity around what constitutes college and career readiness can serve to galvanize and energize the entire sector and focus strategies and actions to improve student achievement in a way that ensures student success beyond high school.
- B. Higher education:** Higher education has a clear interest in better-prepared students enrolling in colleges and universities. The less they focus on remediating students, the more capacity they have to impart higher-order skills and knowledge to degree candidates. Higher education needs to take greater ownership for college readiness through stronger collaboration with the K-12 education sector, as well as by taking responsibility for improving teacher preparation programs, including in-service teacher professional development.
- C. Other postsecondary providers (apprenticeship, adult career tech, etc.):** College and career readiness affects other postsecondary education providers beyond colleges and universities.

These include apprenticeship programs, adult career-technical education programs, and business training programs.

- D. Early childhood education:** A high-quality early childhood education can ensure that a student is well-prepared to enter kindergarten, and so starts a child on his or her way to college and career readiness by the time of high school graduation. By including early childhood education providers in the design process, states can ensure a continuous connection between preschool and postsecondary education.
- E. Businesses:** The business community has a key interest in the knowledge and skills of the workforce pipeline. As such, business leaders are important stakeholders in the college- and career-readiness agenda, as well as efforts to increase rates of college completion and credential attainment. Often a state chamber of commerce has an education committee that engages in education policy and advocacy activity. Business support may also take other forms through education-specific business organizations or education advocacy organizations that have strong business involvement.

## Dispelling Myths

Defining college and career readiness can be a process that allows for stakeholder engagement in a fairly neutral and non-politicized way. However, during the course of stakeholder engagement around a readiness definition, questions may be raised about the Common Core State Standards and the aligned assessments. Those leading the definition development effort should be aware of resources that can help dispel myths and provide fact-based information about the standards and assessments. Good sources for this type of information include:

- [Common Core State Standards Initiative](#): One of the best ways to dispel myths is to simply have people read the standards themselves. This web site includes the [Core Standards Statements of Support](#) which offers links to statements of support for the Common Core from state leaders, national organizations, associations, business organizations and others
- [Future Ready Project](#): Sponsored by Achieve, Inc., this website includes specific tools and resources for making the case for the Common Core and for planning strategies to communicate and advocate for the standards.
- [STAND Indiana - I Am For The Core](#): This website was developed by Stand for Children Indiana that provides advocacy resources including videos, fact sheets and other resources to address common misconceptions and resistance to the Common Core.

- [\*High Standards Help Struggling Students\*](#): This 2012 study by Education Sector, an independent education think tank, finds that high standards help struggling students to achieve at higher rates.

- F. Students and families:** Students, whether secondary or postsecondary, are the main consumers of college and career readiness policies and often provide the grass-roots, on-the-ground insights that can help shape the policies' direction. Their parents and families also can be valuable sources of feedback because of their role in helping their children navigate education choices through K-12 and postsecondary education.
- G. Others:** Representatives of sectors and interests listed above should provide the primary input into the work of defining college and career readiness. States may desire to consult and/or include other entities and interest as well. These could be elected officials (governors, legislators, mayors, etc.); other government agencies such as state departments of labor, economic development or human services; and non-profit organizations such as the United Way, Urban League and other similar groups.

### Process Approaches – Examples

There is no one right way to conduct a process for developing a college and career readiness definition. Consequently, the best way to illustrate such processes is to provide some specific examples. These are meant to be illustrative, and to provide users of this guide with ideas for their own processes.

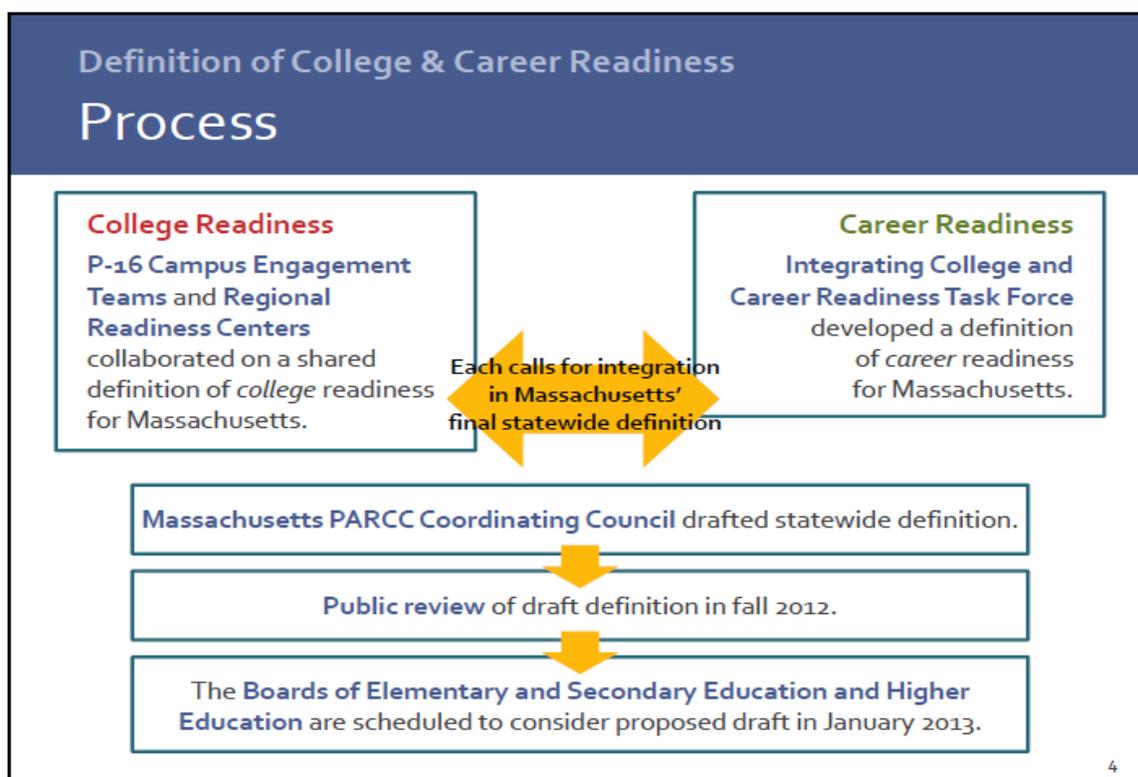


#### Massachusetts

In 2011, the Massachusetts Department of Elementary and Secondary Education (DESE) and the Department of Higher Education (DHE) began a process to define college and career readiness. This work was viewed as part of the state's effort to improve college and career readiness outcomes for its students as well as a component of its participation in the PARCC consortium. The effort was based on the foundation that students will have developed consistent, challenging, intellectual growth in all subject areas, throughout their high school program as a result of the full implementation of the Massachusetts Curriculum Frameworks (which include the CCSS) and the "MassCore" recommended course of study. The goal was to create greater awareness of the state's college and career readiness activities, and gather meaningful input and deliberation on its PARCC work from education stakeholders at the local, regional and statewide levels. Key features of the process included the following:

- **Final decision making:** The structure and process specified that major policy decisions on key matters related to the PARCC assessments would be made jointly by the Board of Higher Education and the Board of Elementary and Secondary Education.

- **Leadership commitment and engagement:** The overall process was led by Commissioner of Higher Education Richard Freeland and Commissioner of Elementary and Secondary Education Mitchell Chester. The two commissioners co-chaired and formed a statewide 14-member coordinating council composed equally of P-12 and higher education representatives.
- **Statewide launch:** Massachusetts hosted a statewide launch conference for this work in October 2011. Representatives of the K-12 and higher education sectors from across the state came together. Comments and discussions were compiled and used to inform the next steps of the work.



- **P-16 Campus Engagement Teams:** In December 2011, Commissioner Freeland requested that all public college and university presidents establish Engagement Teams on each campus. These teams would bring together higher education faculty and staff with P-12 teachers and school/district leaders. The teams were asked to collaborate in the development of a shared definition of college readiness for Massachusetts by organizing discussions at the local level and through the state’s six Regional Readiness Centers.

During the spring of 2012 the Engagement Teams, collaborating with over 500 P-16 educators, developed statements on college readiness which, while distinctive in style and language, shared a focus in three interrelated areas – a set of core academic competencies; cognitive skills and strategies; and dispositions and habits of mind. The Engagement Teams also urged support for a Massachusetts definition that would encompass all high school students' preparation for their postsecondary paths by addressing both college and career readiness. By June 1, 2012, the 25 institution presidents submitted their P-16 Campus Engagement Team reports on defining college readiness.



- ***Integrating College and Career Readiness Task Force (ICCR):*** In December 2011, the Board of Elementary and Secondary Education appointed a 36-member task force of business, education and community leaders to develop recommendations for better integrating college and career readiness into K-12 education. The Task Force included Higher Education Commissioner Freeland and other representatives from higher education. The Task Force was charged to identify: “power” standards (knowledge and skills) inherent in a core career development education program; indicators of career readiness, including student assessments; and policies and programs that provide multiple pathway options to integrate knowledge and skills for career and postsecondary education readiness; as well as to adopt a clear, measurable definition of career readiness.

The ICCR Task Force defined career readiness as follows: “Career readiness means an individual has the requisite knowledge, skills and experiences in the academic, workplace readiness and personal/social domains to successfully navigate to completion an economically viable career pathway in a 21st century economy.” The ICCR Task Force Report was presented to the Board of Elementary and Secondary Education on June 26, 2012.

- ***Integration of definitions:*** The definitions developed and submitted by the P-16 Campus Engagement Teams and the ICCR Task Force in the spring of 2012 indicated clear support for the integration of college and career readiness in Massachusetts’ work to develop a shared statewide definition. The readiness perspectives of the Engagement Teams and ICCR Task Force were synthesized, and a draft Massachusetts definition was prepared for review by the coordinating council. The council reviewed the definition and recommended that it be submitted to the two Boards.

- **Survey and public comment:** A draft definition of college and career readiness reflecting the council’s feedback was circulated among education, business and community groups during the summer of 2012. Of more than 1,360 survey participants who responded by October 2012 – 47 percent from higher education, 48 percent from P-12 and 5 percent other – more than 80 percent supported the draft definition. In November, the statewide coordinating council convened to finalize the shared draft definition and to recommend its consideration by the Board of Elementary and Secondary Education and the Board of Higher Education.
  
- **Definition approval:** The draft definition was presented to a joint meeting of the two Boards held on January 29, 2013. After allowing for a period of public comment and final review, the Board of Elementary and Secondary Education adopted the definition on February 26, 2013, and the Board of Higher Education adopted it on March 12, 2013.

***Higher Education  
Lessons Learned from  
College Readiness  
Initiatives***

- *Carefully select the project you will implement and consider its scope.*
- *The right partners are critical for success.*
- *Carefully select who will do the work.*
- *Know your target group.*
- *Planning must begin early.*
- *Evaluation plans must be designed during the planning phase of the project.*
- *Set realistic expectations.*
- *Consider how you will sustain the program.*
- *The details are important but don't forget the big picture.*

*-- From Serving America's Future: Increasing College Readiness by the American Association of State Colleges and Universities.*

## *The Massachusetts Story: Lessons on Creating a Common Definition of College/Career Readiness*

*The following is an edited conversation with Susan Lane, Senior Director of Alignment and Engagement for the Massachusetts Department of Higher Education:*

### **Why did Massachusetts pursue a common college and career readiness definition?**

Because we didn't have a definition. It was left to everyone to sort of decide what college and career readiness meant, and everyone defined it differently. To increase student success rates coming out of high school and to ensure that students graduated ready to succeed in college or in the workforce, we needed to define what it meant. When we began, it was to create a college readiness definition, but we quickly heard that if it was to represent all students, the definition also had to include careers, so we focused on college and career readiness.

### **How much did stakeholder feedback shape the final version?**

We went through 10+ versions. The final structure of the definition was determined by the 29 campuses, which all wanted the final definition to be about learning strategies and dispositions. They said we needed to talk about learning strategies and habits of mind, and that's what we did. We also got direct feedback from 1400+ stakeholders about the definition itself, ranging from copy edits to words they wanted us to include to foundational changes. There was a strong push for more context for the definition itself, so we created a background statement to illustrate how it was going to be used and why it was needed.

### **How do you plan to communicate the definition publicly?**

First phase was to get it back to the key stakeholders, especially on the campuses and campus engagement teams, to ensure we had followed their recommendations and that we weren't going too far afield. We did that immediately. In May we did our first broad communication of the definition at a Future Ready summit with business leaders and community organizations to communicate to influential adults. Our next challenge is to determine how to get through to students, parents and other stakeholders. That's the work ahead for this year and beyond.

### **What's the most important piece of advice you have for states that want to pass a common CCR definition?**

The process itself is almost more important than the words that end up on the paper. The process required collaboration between K12 and higher ed. They could have gotten to an understanding/definition pretty quickly, but how they get there and the other conversations and understandings they shared back and forth are what make the words actually work. I don't mean to say that the words are unimportant, but they come about quickly – the conversations and the fact that it's developed collaboratively is key. This collaboration provides the foundation for successful adoption and implementation going forward.



## Colorado

In Colorado, the State Board of Education and the Commission on Higher Education jointly adopted a statewide Postsecondary and Workforce Readiness (PWR) definition in June 2009. The term “postsecondary and workforce readiness” is Colorado’s chosen phrase to reflect the concept of “college and career readiness.” The state’s definition has served as a North Star and common touchstone for developing and aligning a number of critical reforms.

In 2008, the Colorado Achievement Plan for Kids (CAP4K) was enacted in a bipartisan effort of the Colorado legislature. The intent of CAP4K was to improve Colorado’s public education through alignment of preschool through postsecondary expectations, policies, and practices. CAP4K called for the adoption of definitions for school readiness and postsecondary and workforce readiness. It also called for assurances that more students graduate from high school ready for college or a career. The legislation required the Colorado Department of Education (CDE) and the Colorado Department of Higher Education (DHE) to work together to accomplish the task of creating these definitions.

- **Public engagement:** The two departments jointly convened 13 regional meetings around the state between November 2008 and June 2009. The purpose of these meetings was to engage local communities in conversations about the skills and competencies students need to succeed after high school. To this end, the state engaged over 1,000 P-12, higher education, community college, and business stakeholders as well as parents, board members and others in conversations about:
  - ⇒ What skills and competencies do students need to be workforce ready?
  - ⇒ What skills and competencies do students need to be postsecondary ready?
  - ⇒ Are there special regional considerations relative to the workforce or higher education?
- **Business community:** The support of the business and workforce community was key to the adoption of the PWR definition in Colorado. CDE and DHE partnered with Colorado Succeeds (an education advocacy policy organization of business and workforce leaders) and a number of prominent business leaders to administer online surveys targeted toward the specific needs and interests of the business community. The advocacy and leadership of the members of the business community contributed to the rigor and high expectations found in the definition, and built the case for establishing one set of expectations for high school students whether they plan to pursue a postsecondary education or enter the workforce to begin a career.
- **K-12 and higher education governing boards: joint adoption:** Based on local input, CDE and DHE jointly drafted a PWR description for review and feedback by the State Board of Education and Colorado Commission on Higher Education. The PWR definition was designed to create a common set of beliefs around what students needed to enter school and be successful and what

they needed to know and be able to do to exit secondary schools ready for college or a career. The definition was vetted once again with each stakeholder group. Members of the public were invited to provide comments at the State Board meeting on June 10, 2009. The State Board of Education and Colorado Commission on Higher Education jointly adopted the final PWR definition at a meeting on June 30, 2009.

- ***The meaning of postsecondary and workforce ready:*** To be designated as **postsecondary and workforce ready**, secondary students shall demonstrate that certain content knowledge and learning and behavior skills have been achieved without the need for remedial instruction or training. This demonstration includes the completion of increasingly challenging, engaging and coherent academic work and experiences, and the achievement of proficiency shown by a body of evidence including postsecondary and workforce readiness assessments and other relevant materials that document a student’s postsecondary and workforce readiness.
- ***Next-generation assessments:*** Outcomes associated with measuring PWR are included in the statewide accountability system. The PARCC assessment is being designed to measure students’ readiness for credit-bearing coursework in math and English language arts. Colorado is currently engaging teachers, faculty, admissions and academic provosts from K-12, community colleges, and four-year institutions to provide expertise and feedback on the design and policies of the PARCC assessment. The State Board and Commission must jointly adopt scoring criteria on the high school assessment once the PARCC assessment is administered. Higher education will be expected to use the assessment in informing placement decisions.
- ***Impact on state education policy:*** The PWR definition has had a broad impact on a number of features of education policy in Colorado, including the following:
  - ⇒ ***The Colorado Academic Standards:*** These standards were adopted in 2009 and 2010. The standards for math and English/language arts are based on the CCSS but include components that are “unique to Colorado.” There are also standards in dance, drama and theater arts; music; science; social studies; visual arts; and world languages.
  - ⇒ ***High school diploma endorsement:*** Colorado developed high school diploma endorsement criteria that local school districts may choose to use. These criteria use the PWR definition to identify student achievement over and above the requirements for a standard high school diploma. The endorsement guarantees that the student meets minimum academic qualifications for admission to all open, modified open, or moderately selective public institutions of higher education in Colorado, as well as priority consideration for admission into Colorado’s selective and highly selective institutions. The Endorsed Diploma signifies a student has thoughtfully planned for post-high school life and is academically prepared for credit-bearing 100-level postsecondary coursework without the need for remediation. It also means the student possesses the abilities and skills demanded in a rapidly changing, 21<sup>st</sup>-century workplace or

postsecondary education environment (i.e., critical thinking and problem solving, information literacy, collaboration, self-direction, and invention skills).

- ⇒ **Individual Career and Academic Plans (ICAPs):** The ICAP is the vehicle and structure for supporting students during high school with the planning, preparation, and milestones associated with increasing the likelihood of graduating PWR. The ICAP program was implemented for all students ninth grade and above starting September 2011.
  - ⇒ **Graduation guidelines policy recommendations:** Statewide high school graduation policy recommendations (currently under review by the State Board of Education) have been developed that include the definition, and the demonstration of 21<sup>st</sup>-century skills.
  - ⇒ **State accountability system:** Twenty-five percent of the criteria for district accreditation is now based on “Indicators of Postsecondary and Workforce Readiness.” This includes graduation rates, dropout rates and scores on the standardized college entrance examination administered as a statewide assessment.
  - ⇒ **High school assessment design:** The Assessment Attributes jointly adopted by the State Board of Education and the Commission on Higher Education in November 2010 will measure readiness in science and social studies. The PARCC assessment will measure student readiness in math and English language arts, and the 11<sup>th</sup>-grade score is intended to signal readiness for credit-bearing coursework or 12<sup>th</sup>-grade interventions and support for students not on track to be ready upon graduating.
  - ⇒ **Higher education admission and remedial policy:** Legislation requires the Commission to review and amend admissions policies to align with the PWR definition.
- **Publicizing the PWR Definition:** The Colorado PWR definition was adopted at a time when P-20 collaboration, alignment, and student readiness and transitions were just emerging ideas and concepts. The PWR definition was one of the first steps the state pursued that focused on these goals, and eventually led to consensus and a joint adoption of the policy between the State Board of Education and Commission on Higher Education. The unique approach and partnership between K-12 and higher education helped improve communication and increase public awareness because it relied on the input, consensus and support from so many stakeholders, including K-12, higher education, workforce, labor and community members.

Four years after the joint adoption, both higher education and K-12 state agencies have maintained the collaborative approach to communicating about the definition. Both state agencies talk about and use the definition in a consistent manner and using consistent language (e.g. co-development and use of shared documents, graphics and visuals, and joint outreach to media outlets).

## Support and Advocacy for State Adoption of College and Career Ready Definitions

**A. U.S. Department of Education (USED):** USED has made an explicit commitment to support efforts designed to increase the number of students who achieve college and career readiness. The Department’s point of view and a description of its key strategies are captured in *College and Career Ready Students*.<sup>46</sup> USED focuses on four key areas:

1. Standards and Assessments
2. Accountability and Support
3. Building Capacity for Support at Every Level
4. Comparability and Equity

Many states have applied for and received waivers from certain provisions of the Elementary and Secondary Education Act (ESEA) from USED. The criteria for requesting waivers included a special emphasis on states’ taking action to promote college and career readiness through changes to accountability systems and in other ways.

**B. Business:** The Business Roundtable, in its recent publication *Taking Action for America*<sup>47</sup> states that “The high school dropout rate remains unacceptably high, and many who do graduate lack the skills needed to succeed in college or work.” Many businesses are partners in local community collaboratives, as well as involved in state and national advocacy and policymaking efforts that support strategies for increasing education attainment.

**C. Higher education:** The NCPPHE and the SREB jointly published *Beyond the Rhetoric: Improving College Readiness Through Coherent State Policy*,<sup>48</sup> which argues that “Systemic readiness reform can be accomplished only if all of the system components that affect what teachers teach and what students learn are in place and coordinated around mutually understood statewide college readiness standards.” The report makes the case that higher education must be more significantly involved in the college readiness agenda and offers a number of suggestions for how that can be accomplished.

Specific strategies for ways that higher education can support college readiness efforts also are contained in the publication of the American Association of State Colleges and Universities, *Serving America’s Future: Increasing College Readiness*.<sup>49</sup> This publication calls on colleges and universities across the U.S. to engage in addressing the country’s college readiness challenge. It suggests that campus strategies be research-based, intentional, sustained and evaluated. It highlights a number of foundational programs – teacher preparation programs, P-16 curricular alignment, high school feedback and dual enrollment/dual credit as areas in which higher education can focus its attention to improve readiness outcomes.

A number of national initiatives are underway that are designed to create better and stronger alignment between K-12 and higher education. These include the Core to College Network, the College and Career Readiness Partnership, the Postsecondary Common Core Collaborative, the Education Commission of the States Blueprint for College Readiness and the Jobs for the Future Post-Secondary State Policy Network.

**D. Advocacy organizations and philanthropies:** Many community, state and national advocacy organizations and philanthropies have made college and career readiness an important linchpin in their overall strategy to support increased education attainment among the U.S. population. For example, the Lumina Foundation has established its Goal 2025 to increase the proportion of Americans with high-quality college degrees, certificates or other credentials to 60 percent by 2025. Lumina recognizes that in order to do this, the P-12 system must do a better job of preparing students for postsecondary education pursuits and success.

Similarly the Bill & Melinda Gates Foundation has formed grant-making partnerships in states and districts throughout the U.S. to support promising innovations in ensuring that students graduate from high school ready to succeed in college. Through its College-Ready Education program, which includes the Measures of Effective Teaching project and the development (with teachers) of classroom materials based on the CCSS, the Gates Foundation seeks to raise expectations for teaching *and* learning to ensure students are mastering the skills for success in college and beyond.



## Section III: Using a College and Career Readiness Definition to Achieve Results

The NCPPHE and the SREB, in their report *Beyond the Rhetoric: Improving College Readiness Through Coherent State Policy*, identify the following reasons for why even a college-prep curriculum is insufficient to ensure that a student is college ready:<sup>50</sup>

- P-12 and postsecondary expectations are disconnected.
- Courses and seat time do not guarantee skills and knowledge.
- Traditional readiness assessments do not measure college readiness.
- Schools and teachers are not accountable for teaching to college readiness standards.
- Colleges are not accountable for degree completion.
- Neither K-12 nor higher education “owns” the space between high school and college, aka “summer melt.”

High-quality college and career readiness definitions can serve as the foundation for addressing these and other deficiencies. Once a state has developed a definition of college and career readiness that enjoys the support of the P-12 education, higher education and the business community, it can be used in all sectors to identify strategies to increase the numbers of students who reach the readiness standard. The P-12 sector can use it to develop curriculum; higher education institutions can use it to assess their admission and assignment policies and to better anticipate the level of knowledge students will have when they are enrolled; and the business community can use it to more clearly manage and set expectations for new hires. Some of the ways in which a definition can form the basis for concrete action include the following:

- A. Comprehensive strategic planning to increase college readiness:** While various stakeholders can each pursue relevant and high-priority strategies, the most effective approach to improving readiness outcomes is for states to develop comprehensive, multi-faceted plans to address the need to increase the number of students who meet the readiness definition. Such plans will include a clear set of measurable goals with interim annual targets of progress. They will include specific strategies as well as roles and responsibilities for implementation.

Any of the strategies listed in this section would be appropriate to include in a comprehensive strategic plan to increase college and career readiness.

- B. Placement: Use the definition to inform entry-level, credit-bearing course placement decisions in higher education:** Perhaps the most logical use of a high-quality definition of college and career readiness is to inform and drive entry-level placement in institutions of higher education. Essentially, the goal is that a student determined to be college ready should be able to engage in postsecondary education pursuits without the need for remediation. (It should be noted that

college readiness cannot serve more complex or finer-tuned placement purposes; for example, whether a student should be placed in a high-level calculus course vs. entry-level calculus.)

*Placement* policy should not be confused with *admission* policy. Advocates for identifying and using college and career readiness definitions have no intention to alter the current higher education landscape whereby each institution determines its own requirements for admission. However, students who meet the college readiness definition should be well-positioned to succeed in the entry-level college course regardless of the institution to which they are admitted.

Such a notion often generates resistance, since intuitively it seems as though English 101 taught at a highly selective higher education institution must be different than English 101 taught at an open-access community college. In reality, when faculty from a variety of institutions who teach English 101 are brought together and share their own academic backgrounds, course syllabi, course materials and expected student outcomes, they find a high rate of similarity.<sup>51</sup> In fact, this high degree of similarity undergirds the fundamental idea of credit transfer and all state-level articulation and transfer systems.

A review of the literature conducted by WestEd as part of its evaluation of the Core to College project reveals that higher education institutions recognize “that standardized and consistent course placement policies and higher academic standards will improve low student success rates by:

- Improving postsecondary institutions’ ability to accurately assess and place students
- Making entrance standards consistent and less confusing for students
- Clarifying college-level performance expectations and developing a variety of models rather than using a one-size-fits-all approach
- Reducing transfer barriers between institutions
- Articulating course sequences and aligning K–12 and postsecondary curricula
- Supporting the use of student data to measure outcomes across P-12 and higher education”<sup>52</sup>

WestEd goes on to identify a number of states that already have common placement standards in place. The goal, however, is to align these placement standards to the assessments of the Common Core State Standards as the assessments are finalized and implemented.

- C. Data collection and analysis:** Once a state has established a definition, it can proceed to identify and collect the data needed to understand the extent to which students are emerging from high school meeting the definition. The college and career readiness agenda can be significantly transformed by the use of powerful longitudinal data systems that link K-12, higher education and workforce data in useable and informative ways. Data can be useful for evaluating strategies that are developed to improve outcomes. Data also can validate components of a

college and career readiness definition, and ensure that they do, in fact, contribute to college and career success.

The Data Quality Campaign (DQC) has a number of resources that can be useful in developing a robust data strategy to support efforts to increase college and career readiness. DQC's publication *Using Data to Increase College and Career Readiness*<sup>53</sup> identifies three key steps (accompanied by a convenient checklist<sup>54</sup>) for policymakers to pursue toward an aligned data collection and use strategy. These are:

1. Identify the critical questions that need to be answered
2. Ensure that the state has the data capacity
3. Put the data to work by using it to inform key policy and strategy decisions

The Strategic Data Project (SDP) at the Harvard University Graduate School of Education has developed a number of strategic performance indicators and diagnostic approaches that relate to college readiness and ultimate success in college.<sup>55</sup> SDP has developed a robust toolkit that guides states and data analysts in the identification and analysis of key indicators related to improving college going and completion.

Data can also be used to develop and disseminate **high school feedback reports**. Education Sector's publication *Data That Matters: Giving High Schools Useful Feedback on Grads' Outcomes*<sup>56</sup> identifies how higher education enrollment and success data can provide powerful and actionable feedback to school districts and to high school principals and teachers about preparation of students for college. Education Sector suggests a number of metrics that can be used to help states gauge college and career readiness of high school students, and identifies the elements of high-quality feedback reports. DQC also provides information that can help states identify exemplars and resources that can be used to help design effective high school feedback reports.<sup>57</sup> DQC identifies Kentucky,<sup>58</sup> Hawaii,<sup>59</sup> Indiana<sup>60</sup> and Washington<sup>61</sup> as states with high-quality feedback reports.

Another excellent way to use data is in the development and implementation of **early warning systems**. DQC's publication *Hot Topic: Supporting Early Warning Systems*<sup>62</sup> provides a brief overview of the value of early identification of students who are not on track for college readiness. If states provide strong supports to students early in their academic careers, the likelihood of getting them to the point of college and career readiness by graduation is higher. DQC highlights state examples including Louisiana's Dropout Early Warning System and the Virginia Early Warning System.<sup>63</sup>

**D. Accountability systems.** Strong metrics and data collection also provide the basis for the development of accountability systems that support higher rates of college and career readiness. (The U.S. Department of Education has been stressing state implementation of college and career ready-aligned accountability systems as part of the ESEA waiver process.) By holding state education agencies, districts and schools, and the various actors in the system – school boards, superintendents, principals, teachers and even parents and students – accountable for contributing to improved college and career readiness, positive outcomes are more likely. The key is to ensure that all elements of the accountability system – state, district, school and classroom – are aligned with the state’s definition of college and career readiness.

In its publication *Roadmap for Next-Generation State Accountability Systems*,<sup>64</sup> the CCSSO observes, “Next-generation systems of accountability will play a critical role in achieving the goal of college and career readiness for all students by supporting states, districts and schools in their work to ensure students are on a college and career ready pathway throughout their education career.” The Roadmap is an excellent resource to guide the development of accountability systems oriented to college and career readiness. It is based on eight components of effective accountability systems (see sidebar on this page) and provides a number of specific design features and high-quality examples of effective accountability structures. The guide also provides useful information about the importance of transition planning for the effective implementation of new accountability structures.

Alignment of accountability also can extend to early childhood education systems. While a college and career readiness definition specifies what a student is expected to know and be able to do upon graduation, reaching such a desirable outcome has implications for early childhood education programs. The National Early Childhood Accountability Task Force issued a report, *Taking Stock: Assessing and Improving Early Childhood*

### *Eight Components of Effective Accountability Systems*

- 1. Performance objectives for schools and districts aligned to the goal of college-and career-ready students*
- 2. Valid measures focused on student performance outcomes (including measure of status and growth, and disaggregated by student subgroup)*
- 3. Determinations that meaningfully distinguish school and district performance*
- 4. Transparent reporting of data*
- 5. Diagnostic review to ensure comprehensive analysis of school and district performance*
- 6. Classification that direct the provision of rewards, supports and interventions to schools and districts*
- 7. Supports and interventions to reinforce school and district efforts to produce college- and career-ready students*
- 8. Commitment to innovation, evaluation and continuous improvement of next-generation accountability systems*

-- From CCSSO, *Roadmap for Next-Generation State Accountability Systems*.

*Learning and Program Quality*, that identifies and articulates the importance of and need for better accountability for early childhood education programs.<sup>65</sup>

As part of its accountability system, a state can develop an index that reflects a composite of many factors that contribute to college and career readiness. [Georgia's College and Career Ready Performance Index \(CCRPI\)](#) is a comprehensive school improvement, accountability and communication platform for all education stakeholders. The platform is designed to highlight accountability measures that track college and career readiness for all Georgia public school students. CCRPI reports include school level data on achievement scores, achievement gaps, performance of English language learners and students with disabilities, financial efficiency ratings and school climate ratings. A section of the CCRPI also notes "performance flags" for identified subgroups (the list corresponds to the No Child Let Behind subgroups). The CCRPI includes data on all students, and includes a five-year extended cohort graduation rate.

[Kentucky's College Readiness Indicators](#) include cut scores for state and national assessments (ACT, SAT, COMPASS, KY online testing (KYOTE)) as well as specific learning outcomes that must be included in developmental, transitional and supplemental coursework and intervention programming supporting college readiness for writing, reading and mathematics, including college algebra. The indicators also include an eight-point College Readiness Writing Rubric.

- E. Cross-sector education alignment activity:** Generally speaking, the K-12 and higher education sectors operate independently of one another. Increased collaboration is essential in order to create a more significant impact on student outcomes in terms of college and career readiness. Projects such as the *California Partnership for Achieving Student Success* (Cal-Pass, [www.calpass.org](http://www.calpass.org)), the *National Writing Project* ([www.nwp.org](http://www.nwp.org)) and work being done by the *Educational Policy Improvement Center* (EPIC; [www.epiconline.org](http://www.epiconline.org)) in Connecticut,<sup>66</sup> Illinois<sup>67</sup> and South Carolina<sup>68</sup> are good examples of high quality K-12/higher education collaborations targeted to improving student learning outcomes and transitions. The *California State University (CSU) Early Assessment Program* includes a specific assessment to gauge college readiness. It is combined with the opportunity for students to take a specially designed course in their senior year to improve expository reading and writing skills, and to access an interactive online program called CSU Math Success to improve math skills.<sup>69</sup>

Additionally, a report of the National Center for Postsecondary Research, *The Common Core State Standards: Implications for Community Colleges and Student Preparedness for College*, provides a number of concrete recommendations that support greater collaboration and alignment between high schools and community colleges. Recommendations include expanded dual enrollment offerings, aligning developmental education and introductory college courses to the CCSS, strengthening partnerships with local high schools to ensure that more students graduate college ready and working with K-12 teachers and higher education faculty to share classroom expectations.<sup>70</sup>

**F. Horizontal alignment within higher education:** It is critical that states continue to support and uphold the rich diversity of content at higher education institutions. At the same time, if high school students believe they are being prepared to succeed in entry-level credit-bearing college courses, it makes sense to ensure some level of consistency among such courses. Such consistency also serves another purpose; it can improve the transferability of credits from one institution to another. States with robust articulation and transfer systems create student-friendly environments that allow students to move from one college to another and carry credits with them. The report *Transfer and Articulation from Community College to Four-Year Institutions: Hope on the Horizon* recognizes exemplary articulation and transfer work taking place in Arizona, California, Florida, New Jersey, North Carolina, Ohio, Oregon, Texas and Washington.<sup>71</sup> States with strong articulation and transfer systems have an easier time setting clear expectations for what high school students need to know and be able to do by virtue of having greater alignment within the higher education sector. A good resource for improving

### **Community Partnership Initiatives**

- **Strive Partnership:** Based in Cincinnati, the Strive Partnership is a community-wide initiative to improve students' achievement and growth in Cincinnati, OH; Covington, KY; and Newport, KY. The partnership monitors 34 different measures and evaluates the extent to which each measure is trending in the right direction. The partnership also works to develop strategies to reach specified goals.
- **Learn to Earn:** Learn to Earn is a partnership in Dayton, OH that provides a collaborative forum for education providers and nonprofits. Learn to Earn has established clear measures of success and strategies for achieving them.
- **College Ready Now:** College Ready Now is based out of the Austin, TX Chamber of Commerce. The project was established after a report identified that 85% of all new jobs nationwide require some postsecondary education. Various components of the project are designed to recruit volunteers to work with students, to promote college-going habits among students and their families, and to collect and analyze data related to outcomes.
- **55,000 Degrees:** 55,000 degrees has a simple goal – to increase educational attainment in the Louisville, KY area by 55,000 postsecondary degrees by 2020. The project provides supports to parents, high school students and college students. It also offers resources to businesses and community members for how they can help.
- **Long Beach College Promise:** A collaboration among the Long Beach Unified School District, the Long Beach City College and the California State University, the Long Beach College Promise is designed to increase readiness among high school graduates, as well as increase successful transfers and college completion.

higher education articulation and transfer is the publication by the Western Interstate Commission for Higher Education (WICHE) entitled *Promising Practices in Statewide Articulation and Transfer Systems*.<sup>72</sup>

**G. Community-wide educational attainment efforts:** Armed with a common definition of college and career readiness, local communities can bring together critical stakeholders in community-wide efforts to improve readiness outcomes, as well as raise overall educational attainment by emphasizing postsecondary completion. The Business-Higher Education Forum (BHEF) examined a number of successful community based initiatives focused on improving educational attainment.<sup>73</sup> See the sidebar on the previous page for some descriptions of these types of initiatives.

**H. High school reform (focusing on teaching and learning):** Many high schools see their primary goal as preparing students for graduation. High school graduation, however, frequently doesn't indicate college and career readiness.<sup>74</sup> Increasingly, high schools are adopting a more explicit and deliberate focus on helping students to become college and career ready. This simple change in focus drives a number of potentially dramatic changes ranging from school culture, to student advising, to teaching and learning strategies. A number of good resources are available that can support efforts to help high schools focus on readiness rather than simply graduation. The U.S. Department of Education's National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences has issued *Helping Students Navigate the Path to College: What High Schools Can Do*.<sup>75</sup> This practical guide summarizes the best research around effective strategies for improving the preparation of students for college. Its recommendations are organized into five areas:

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***Opportunity By Design: New High School Models for Student Success.***

*The Carnegie Corporation of New York recently (Spring 2013) released [this report](#) in which researchers make the case for paying significant attention to the high school experience, and call for significant reform. The report puts forth ten integrated design principles, gleaned from research about high-performing high schools, which will form the basis for Carnegie Corporation's future work in the field of high school redesign.*

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1. Offer courses and curricula that prepare students for college-level work, and ensure that students understand what constitutes a college ready curriculum by 9<sup>th</sup> grade;
2. Utilize assessment measures throughout high school so that students are aware of how prepared they are for college, and assist them in overcoming deficiencies as

they are identified;

3. Surround students with adults and peers who build and support their college-going aspirations;
4. Engage and assist students in completing critical steps for college entry; and
5. Increase families' financial awareness, and help students apply for financial aid.

## *The Tennessee Story: Using a Common Definition of College and Career Readiness*

*The following is an edited conversation with Mike Krause, Assistant Executive Director for Academic Affairs; Katrina Miller, Director, First to the Top; and Melissa Stugart, Core to College Director – all from the Tennessee Higher Education Commission.*

### **Why did Tennessee pursue a common college and career readiness definition?**

We had this 90 percent proficient rate on TCAP (state standardized test) and were graduating students at a decent rate and saying they were prepared. But once they were getting into college, we had an incredibly high remediation rate, and businesses were telling us they weren't prepared. Those were different sources saying we need to regroup and think about what it really means to graduate from high school, what a diploma stands for, and what college and career readiness means.

The second part of our definition is very operational, at least at our community colleges and state universities – an agreed-upon ACT benchmark for math and English – and distinctive from a lot of states because it's the same standard at every Board of Regents institution. Students going to a community college in Johnson City have the exact same college- and career-readiness threshold they have to meet as students going to the University of Memphis.

### **How much did stakeholder feedback shape the final version?**

It was crucial. Both the previous governor (Phil Bredesen) and the current governor (Bill Haslam) did a lot of different roundtables with business and industry, and they had some cross-sector meetings where they came together to discuss it. It wasn't something people sat in a room and put together; it was really broad and reflected listening to people around the state.

### **How do you communicate the definition publicly?**

Operationally, it's communicated via chains of command at institutions. In a broader sense, we've communicated it as part of the Race to the Top application and it's been part of Tennessee Higher Education Commission proceedings. We've also worked with Tennessee SCORE, and they have launched the "Expect More, Achieve More" campaign that has been resurrected around the Common Core, so they have done a lot of broad publicity for parents and community leaders. The business support has been an important factor in that communication in local areas.

### **What policy has the definition helped shape?**

As we go around the state talking about how we're using PARCC for placement in 2014-15 as a common definition across the majority of our institutions, that's not a new paradigm. We've been in that context, so when we do have one standard for our institutions – when we show up talking about PARCC – they get that.

### **What's the most important piece of advice you have for states that want to pass a common college and career readiness definition?**

Be very clear about what you want on the other end ... Get everyone on the same page that's needed. Get stakeholder buy-in on the process before it starts. And reach out outside the education community.

Other effective strategies that can play a significant role in efforts to create readiness-focused high schools include:

- **Transition curricula and senior year college readiness strategies:** The first administration of the new assessments aligned to the CCSS will be in 2015. It is expected that large numbers of 11<sup>th</sup> grade students taking the exams will not reach the college readiness cutoff. Many states already are beginning to think about strategies to help these students reach college readiness during their senior year. A recent report by the Community College Research Center<sup>76</sup> inventories the activities of states in developing transition curricula. Leaders in this area include California and Florida. This work has the potential to further contribute to high school reform efforts that target success for all.
- **High-quality data analysis:** The PARCC and Smarter Balanced 8<sup>th</sup> grade assessments will provide high schools with critical information about the status of entering ninth-graders and can help inform early strategies to accelerate success for students who may not be on track to college readiness. Data from the Southern Regional Education Board Transitional Courses initiative<sup>77</sup> include 14 states collaborating to design high-quality, innovative grade assessments that also can be used to direct even more significant attention to helping students reach college readiness. Other data available for high school students can provide early warning information to identify students in need of supports, and to help focus attention on the need to improve teaching strategies and student engagement. There is an emerging interest in the collection and analysis of data that measure school climate and the conditions of learning in school. These factors have been shown to have a tremendous impact on student learning.<sup>78</sup> High school reform efforts may be enhanced by the implementation of data collection and analysis that seek to improve the climate and learning conditions in high schools.
- **Early college exposure:** A proven strategy for high school reform is reflected by the **Early College High School** movement (also discussed earlier in this document). The Early College High School Initiative website is another good source for research and resources related to early college initiatives across the U.S.<sup>79</sup> Jobs for the Future (JFF) has identified exemplar districts that have implemented a **district-wide Early College strategy**. Its publication *Launching Early College Districtwide: Pharr-San Juan-Alamo's "College For All" Strategy*<sup>80</sup> describes the story of one Texas school district's commitment that all students graduate prepared to succeed in college. This district's vision, capture in the slogan "All PSJA Students: College Ready, College Connected," drove the district to take action to expand the concept of early college to all 32,000 students with the goal that every student earn some college credits prior to high school graduation. Beyond the district's commitment, success is supported by critical partnerships with higher education and community partners and support from EducateTexas.

- **Dual enrollment:** As mentioned earlier in this document, JFF has done significant research and provided support to high school redesign efforts in numerous districts across the country. Its publication *Taking College Courses in High School: a Strategy for College Readiness*<sup>81</sup> describes research conducted by JFF that shows that students completing even a single college class can significantly increase the likelihood that they attend and succeed in college. A 2010 study of students who took dual credit course in high school in Oregon showed that students enroll in college at higher levels, have higher levels of persistence to the second year of college, and earn higher first-year GPAs.<sup>82</sup> The National Alliance for Concurrent Enrollment Partnership is a good source for information about high-quality concurrent enrollment programs.<sup>83</sup>
- **Increasing focus on college readiness knowledge, skills and dispositions:** Research has also shown that a focus on increasing college readiness can have a significant impact on closing college completion gaps among underrepresented minority students. In its study *Mind the Gaps: How College Readiness Narrows Achievement Gaps in College Success*, ACT found that gaps in college completion outcomes can be reduced if students enter college with higher levels of college readiness.<sup>84</sup> ACT makes several key recommendations including:

  1. Ensure that all students take at least a core curriculum in high school
  2. Focus high school core courses on the essential standards for college readiness
  3. Ensure that high school courses cover the essential knowledge and skills needed for college and career in sufficient depth and intensity
- **Multiple pathways:** The Pathways to Prosperity Project of the Harvard Graduate School of Education argues that high school reform needs to be anchored in the idea of multiple pathways to success that do not rely solely on attaining a bachelor's degree from a college or university.<sup>85</sup> The report advocates for options that allow students to discover opportunities through work experience programs and work-linked learning. Students need opportunities to be engaged through rigorous career-technical education programs, and need better planning tools to identify career objectives. The report highlights a number of exemplary programs including *Project Lead the Way* (<http://www.pltw.org>), *High Schools That Work* ([http://www.sreb.org/page/1078/high\\_schools\\_that\\_work.html](http://www.sreb.org/page/1078/high_schools_that_work.html)) and the *ConnectEd Linked Learning Initiative* ([http://www.connectedcalifornia.org/schools\\_districts/district\\_initiative](http://www.connectedcalifornia.org/schools_districts/district_initiative)).<sup>86</sup>

Many school districts are designing high schools around particular industry clusters or career pathways – law, health sciences, engineering, etc. An excellent summary of the research on career academies can be found in the publication *Career Academies: A Proven Strategy to Prepare High School Students for College and Careers*.<sup>87</sup> The National

Career Academy Coalition has issued *Career Academy National Standards of Practice*<sup>88</sup> as a guide to the development of high-quality career academies.

- I. **Parent engagement:** A definition of college and career readiness can be an important tool in helping parents to understand what students need to do in order to graduate high school with many options for future success. Parents can assist schools in ensuring that students are prepared for life after high school by fostering an expectation of achieving college or career readiness and by providing appropriate support during the transition from high school to postsecondary education. In the report *A New Wave of Evidence: The Impact of School, Family and Community Connections on Student Achievement*, a summary of quality research demonstrates the linkage between parental involvement and student success.<sup>89</sup> The report also provides a number of recommendations that can lead to the development of effective parent engagement policies and strategies. Based in part on this report, the National Parent Teacher Association has developed standards for parent engagement and resources for schools to use in effectively engaging parents and families.<sup>90</sup>

Higher education also can play a role in parent engagement. The Minnesota State Colleges and Universities System (MNSCU) has developed a *College Readiness for Parents*<sup>91</sup> guide to assist parents in understanding the role they can play in preparing their children for college at an early age. The guide emphasizes multi-readiness dimensions including academic readiness, financial readiness, admissions readiness, career readiness and personal and social readiness.

- J. **Teacher and principal preparation and in-service professional development:** Teachers and principals play a tremendously important role in increasing college and career ready outcomes for students. As such, teacher and principal preparation programs must be aligned to a state's definition of college and career readiness. A number of strategies and promising practices to do this are outlined in *The Common Core State Standards and Teacher Preparation: The Role of Higher Education*,<sup>92</sup> issued by the Association of Public and Land-Grant Universities, the Mathematics and Science Partnership and the National Science Foundation. The report calls for higher education to revise curriculum in disciplinary departments to better align with the CCSS so that students in teacher preparation programs emerge with better and more relevant content knowledge. The report also suggests that preparation coursework and experiences be aligned with the Common Core State Standards and that future teachers have more high-quality field experiences. Teacher preparation programs must also improve their data collection and analysis capabilities in the interest of continuous improvement.

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## **Aligning Teacher Preparation Programs**

The National Center for Teacher Quality (NCTQ) issue brief, [All Quiet on the Preparation Front](#), reports the findings of a state survey relative to teacher preparation programs. NCTQ concludes that states are not aggressively pursuing reforms that are necessary to ensure that newly minted teachers are ready to function in a changing educational environment. Specifically, NCTQ calls for states to align teacher preparation with the Common Core State Standards by:

- Ensuring that coursework and subject matter testing for elementary teacher candidates are well aligned with standards
- Ensuring that teacher preparation programs prepare elementary teaching candidates in the science of reading instruction and require a rigorous assessment of reading instruction
- Requiring teacher preparation programs to provide mathematics content specifically geared to the needs of elementary teachers

NCTQ also recognizes that the standards for special education teachers are particularly low, a situation that cannot remain unchanged if all students are expected to reach higher standards of learning.

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Additionally, the CCSSO recently released a report entitled *Our Responsibility, Our Promise: Transforming Educator Preparation and Entry into the Profession*.<sup>93</sup> The report calls for a transformation of the way teachers and principals are prepared so that students can meet the higher expectations of college and career readiness. The report recognizes that there is a high degree of variability among teacher preparation programs and requirements throughout the country, and describes the characteristics of high-quality programs. Such programs have very selective criteria for enrollment and graduation, are attentive to matching supply to demand, emphasize teacher knowledge and skills about assessment, and use clinically based approaches. The report identifies key state policy levers that can be used to bring about change: licensure policy, program approval, and data collection, analysis and reporting. These strategies can ensure that states are on a path to produce a pipeline of “school-ready” teachers and principals.

Accountability systems also can include teacher preparation programs. In its publication *Measuring What Matters: A Stronger Accountability Model for Teacher Education*, the Center for American Progress proposes criteria and approaches that can form the basis for more rigorous accountability of teacher preparation programs linked to student achievement data and better assessments of teacher knowledge and practices.<sup>94</sup> The National Comprehensive Center for Teacher Quality has also taken on this important issue in its publication *Evaluating the Effectiveness of Teacher Preparation Programs for Support and Accountability*.<sup>95</sup>

### **K. Service learning and expanded learning opportunities:**

During and beyond the school day, students can be engaged in a wide variety of out-of school activities. Many of these can contribute and complement efforts to improve student educational outcomes and help students reach college and career readiness benchmarks. The CCSSO publication *Connecting High Quality Expanded Learning Opportunities and the Common Core*

*State Standards to Advance Student Success*<sup>96</sup> summarizes research that shows that students participating in high-quality expanded learning opportunities (e.g. programs held before and after school, on weekends and during the summer; service learning; mentoring; internships; apprenticeships; etc.) show higher learning outcomes. The report provides recommendations for strengthening expanded learning opportunities by building their connection to the CCSS. The

report highlights examples from New York, Georgia and New Hampshire and recommends a number of key actions that states can take including:

- Set state expanded learning opportunity goals and program standards
- Measure expanded learning opportunity performance
- Provide incentives to improve the quality of expanded learning opportunities

The area of service learning is also one worthy of exploration. The Education Commission of the States report entitled *Linking Service-Learning and the Common Core State Standards: Alignment, Progress, and Obstacles* provides a number of case studies that illustrate how service learning can support the achievement of the Common Core State Standards as well as reaching college and career readiness.<sup>97</sup>

- L. Communications planning:** A comprehensive definition of college and career readiness, encompassing content and strategies, can form the basis for a wide-ranging communications plan that can shape a state’s culture around the value of education, and its importance to the state’s future. Sometimes awareness about state education initiatives is taken for granted. What is needed is a deliberate and persistent strategy to ensure that regular encounters with stakeholders and citizens are anchored in the concepts of college and career readiness, the value of postsecondary credentials, and the economic imperative behind these ideas. A successful communications strategy does not need to have a big price tag, nor does it need to involve high-paid consultants and glitzy campaigns. It needs to rely on the thousands of encounters and opportunities that present themselves throughout the year to make the case for the importance of the work and show its connection to most other efforts and initiatives.

There are a number of good resources that can guide the development of strong communications plans. These include the following:

- Communications planning tools developed by the Education Delivery Institute for PARCC that are included as part of “[\*Implementing Common Core State Standards and Assessments: A Workbook for State and District Leaders\*](#).”<sup>98</sup>
- Resources on advocacy and communications around the CCSS can be found on the Achieve website (<http://www.achieve.org/achieving-common-core>; click on the tab labeled “Advocacy & Communications.”
- Achieve supports a college and career ready advocacy resource center, The Future Ready Project (<http://www.futurereadyproject.org/college-and-career-readiness>), which contains resources on advocacy and communications around college and career readiness.
- The National PTA has developed a toolkit for educators and parents to help them advocate for the CCSS. (<http://www.pta.org/advocacy/content.cfm?ItemNumber=3551&RDtoken=4928&userID>). Training materials (in English

and Spanish) include strategies for building coalitions, developing a campaign, engaging the media, meeting with decision makers and engaging volunteers.



## Conclusion

**A**s states move forward with the implementation of the CCSS, defining what it means to be college and career ready and then aligning the education system firmly behind that definition is a critical step. As this guide details, achieving the widespread buy-in and support necessary to create a definition of such importance is no easy task. Getting it right takes months of work, patience and energy to bring stakeholders together to define what starts out as only a phrase on a piece of paper. But as states that have gone through the process have learned, defining college and career readiness redefines the entire education sector and changes the landscape for teachers, students and parents.

This guide aims to summarize some of the best tools, research and resources currently available to help states at various points along this long path. There is no cookie-cutter definition of college and career readiness, nor should there be. Indeed, how a state defines the term should be as unique as the state itself, and reflect the individual circumstances, demographics and needs of each corner of the nation. The only thing that should be standard from state to state should be the expectations: that every student – regardless of race, ethnicity or ZIP code – should graduate with the tools, skills and content knowledge necessary to be successful after high school in postsecondary education, a career and in life.

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<sup>94</sup> Crowe, Edward. *Measuring What Matters: A Stronger Accountability Model for Teacher Education*. Center for American Progress, July 2010. [http://www.americanprogress.org/wp-content/uploads/issues/2010/07/pdf/teacher\\_accountability.pdf](http://www.americanprogress.org/wp-content/uploads/issues/2010/07/pdf/teacher_accountability.pdf).

<sup>95</sup> Jane G. Coggshall, Lauren Bivona, and Daniel Reschly. *Evaluating the Effectiveness of Teacher Preparation Programs for Support and Accountability*. National Comprehensive Center for Teacher Quality. August 2012.

[http://www.tqsource.org/publications/TQ\\_RandP\\_BriefEvaluatingEffectiveness.pdf](http://www.tqsource.org/publications/TQ_RandP_BriefEvaluatingEffectiveness.pdf).

<sup>96</sup> *Connecting High-Quality Expanded Learning Opportunities and the Common Core State Standards to Advance Student Success*. Council of Chief State School Officers. 2011.

<http://www.ccsso.org/Documents/Connecting%20Expanded%20Learning%20Opportunities%20and%20the%20Common%20Core%20State%20Standards%20to%20Advance%20Student%20Success.pdf>.

<sup>97</sup> Lisa Guilfoile and Molly Ryan. *Linking Service-Learning and the Common Core State Standards: Alignment, Progress, and Obstacles*. Education Commission of the States. April 2013. <http://www.ecs.org/clearinghouse/01/07/19/10719.pdf>.

<sup>98</sup> [http://www.achieve.org/files/Organize\\_The\\_Message.pdf](http://www.achieve.org/files/Organize_The_Message.pdf).

**Appendix A:**  
**Discussion Worksheets**

## Appendix A

### College and Career Readiness Definition – Discussion Worksheet

This worksheet is designed to identify the current status of a state’s college and career readiness definition (Part 1), and to identify areas where a high-quality definition could be used to promote various college and career readiness initiatives (Part 2). These two ideas go hand in hand. States should have a clear set of goals and possible uses in mind as they set about creating or refining a college and career readiness definition.

#### Part 1 – Status of State’s Definition

##### **How to Use Part 1**

States may be at various stages in developing a college and career readiness definition. Go through the checklist of questions below and provide the appropriate answers. Based on the answers, identify whether a definition needs to be created or refined, or whether the definition the state has in place is appropriate.

Question	Yes	No
Does the state have an explicit college and career readiness definition?		
Was the definition jointly developed between, at a minimum, the K-12 and higher education sectors?		
Did the development of the definition involve the business community? Other stakeholders?		
Is the definition widely accepted and recognized?		
Does the definition include references to English/language arts standards?		
Does the definition include references to other academic subjects?		
Does the definition include references to other skills and dispositions (e.g., 21 <sup>st</sup> century skills)?		
Does the definition include references to assessments?		
Does the definition include references to course-taking requirement or GPA?		
Does the definition include references to earning college credit, or taking AP or IB courses?		

Based on the answers to these questions, does the state need to develop a definition or revise its current one?

## Part 2 – College and Career Readiness Initiatives

A priority education goal for states should be to dramatically increase the number of individuals who enter postsecondary education or a career with the knowledge, skills and dispositions to succeed. Once the state has a high-quality definition of the knowledge, skills and dispositions required, it should examine in what ways the definition can be used to help reach this goal. (The elements discussed in this section can also serve to make the case for why having a high-quality definition is important, and consequently support a process for developing one.)

### How to Use Part 2

States can't do everything all at once. This part of the worksheet is designed to identify a few specific areas for future attention and action by the state.

1. Review each of the 10 key elements by going down the left-hand column. Is activity already happening around the particular element in a state? Circle "Y" or "N". If "Y," discuss the quality of the work, whether it is aligned to the states' college and career ready definition and whether stakeholders people are satisfied with the progress being made and outcomes being achieved.
2. For those elements that aren't "already happening," consider three concepts -- the level of "Interest" there might be in the element, the level of "Impact" the element might have, and the "Complexity" of addressing the element. The column labeled "reflective questions" can help provide some clarification about what might be included as part of the element. If it helps, rate each element (H=High, M=Medium, L=Low) in terms of "Interest," "Impact" and "Complexity."
3. After an initial review of the elements, choose several to discuss further. Use the Reflective Questions to guide the discussion. Use the "Comments and Evidence" box to jot notes. Refer back to the Primer as needed.
4. Discuss a "Priority" level (H=High, M=Medium, L=Low) for each element or the elements of interest. Include those elements for which something may be "already happening," but where more might need to be done.
5. Use this process to hone in on three to four key areas of focus for future activity. Write those in the space at the end of the grid provided for this.
6. Identify some key first/next steps around the priorities.

Key Elements	Reflective Questions
<p><b>A. Strategic Plan to Improve College and Career Readiness</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Does the state have clearly articulated and measurable goals and measurable interim targets for college and career ready outcomes? Have goals and targets been set for school districts and schools?</li> <li>▪ Has the state identified strategies that can contribute to reaching the defined goals?</li> <li>▪ Is the state engaged in actions that will lead to improving outcomes and reaching goals? Are such actions well-defined, planned, coordinated and effectively implemented?</li> <li>▪ Does the state have a plan for systematically, effectively and efficiently addressing the college and career readiness needs of returning adult?</li> </ul> <p><b>Comments and Evidence:</b></p>
<p><b>B. Higher Education Placement Policy</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Is the manner in which higher education institutions make decisions about whether students may enroll in non-remedial credit-bearing courses well understood?</li> <li>▪ Is there consistency across all public higher education institutions about the criteria used to define a student as “ready” or “remediation-free?” If not, are there efforts underway to drive greater consistency?</li> <li>▪ Are higher education institutions actively engaged in the state’s work as part of its assessment consortium (PARCC or Smarter Balanced)?</li> </ul> <p><b>Comments and Evidence:</b></p>
<p><b>C. Data Collection and Analysis</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Are robust data available that shed light on various aspects of college and career readiness including progress toward reaching state goals? Are the data presented at various levels (state, district, school) and disaggregated by subgroups?</li> <li>▪ Does the state use data analysis to identify successful practices or causes of poor performance?</li> </ul> <p><b>Comments and Evidence:</b></p>

Key Elements	Reflective Questions
<p><b>D. Accountability System</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Does the state hold itself, as well as districts, schools, boards, superintendents, principals, teachers and students accountable for actions that lead toward improved college and career readiness outcomes?</li> <li>▪ Are there supports provided for elements of the system that are performing poorly with regard to improving readiness outcomes?</li> <li>▪ Are accountability systems structured to look at subgroups of students as well as all students?</li> <li>▪ Are there rewards and consequences linked to progress toward goals?</li> </ul> <p><b>Comments and Evidence:</b></p>
<p><b>E. K-12/Higher Education Alignment Work</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Does the state have a forum (P-20 council, working group, etc.) wherein representatives from the K-12 and higher education sectors (as well as other stakeholders, if desired) can collaborate on issues related to improving readiness outcomes?</li> <li>▪ Can the state point to specific actions or strategies that reflect meaningful collaboration between K-12 and higher education in the interest of improving readiness?</li> <li>▪ Is there a means by which K-12 teachers and higher education faculty can be convened (at the state or regional level) to discuss readiness and the alignment of curriculum to support achieving readiness and ensure an effective transition from high school to college?</li> </ul> <p><b>Comments and Evidence:</b></p>
<p><b>F. Horizontal Alignment within Higher Ed</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ To what extent are first year, entry-level credit-bearing courses aligned between higher education institutions? Are there efforts underway to improve this alignment?</li> <li>▪ Is such alignment work being done in a way that is consistent with the Common Core Standards, and in a manner that would reflect extending the standards?</li> <li>▪ Does the state have a strong system of articulation and transfer that seeks to maximize the extent to which credit can transfer and is applicable to completing degrees and credentials?</li> </ul> <p><b>Comments and Evidence:</b></p>

Key Elements	Reflective Questions
<p><b>G. Community-wide Education Attainment Efforts</b></p> <p>Already Happening: Y N</p> <p>Interest: H M L</p> <p>Impact: H M L</p> <p>Complexity: H M L</p> <p>Priority: H M L</p>	<p>▪ Are there examples in the state of community efforts/forums that bring together educational organizations, business leaders, political leaders and other stakeholders to strategize, collaborate and collectively act to improve readiness outcomes?</p> <hr/> <p><b>Comments and Evidence:</b></p>
<p><b>H. High School Reform (Focusing on Teaching and Learning)</b></p> <p>Already Happening: Y N</p> <p>Interest: H M L</p> <p>Impact: H M L</p> <p>Complexity: H M L</p> <p>Priority: H M L</p>	<p>▪ Are there efforts underway to systematically restructure low-performing high schools? Do efforts include the following?</p> <ul style="list-style-type: none"> <li>⇒ College readiness emphasis and commitment</li> <li>⇒ Senior-year readiness courses</li> <li>⇒ High school outcomes data analysis and use</li> <li>⇒ Early college experiences (Early College models)</li> <li>⇒ Dual enrollment</li> <li>⇒ Pathways models</li> </ul> <hr/> <p><b>Comments and Evidence:</b></p>
<p><b>I. Parent Engagement</b></p> <p>Already Happening: Y N</p> <p>Interest: H M L</p> <p>Impact: H M L</p> <p>Complexity: H M L</p> <p>Priority: H M L</p>	<p>▪ Are there state or local efforts that reach out to parents with information about college and career readiness, and that provide support for parents who seek to help their children achieve readiness?</p> <p>▪ Are major parent groups involved in readiness discussions and strategic planning?</p> <hr/> <p><b>Comments and Evidence:</b></p>

Key Elements	Reflective Questions
<p><b>J. Teacher Preparation and In-Service Professional Development</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Are colleges of education and other teacher preparation programs systematically and collectively working on program changes linked to college and career readiness (and the new standards and assessments)?</li> <li>▪ Are there forums in which representatives of teacher preparation programs meet and share actions and strategies and advise each other regarding challenges?</li> <li>▪ Are there measures in place to connect data about teacher performance back to the teacher preparation program attended by the teacher? Is such data being used to drive improvements and supports to programs that show poor results?</li> </ul> <p><b>Comments and Evidence:</b></p>
<p><b>K. Service Learning and Expanded Learning Opportunities</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Is the state engaged in efforts to clarify and expand service learning and out-of-school learning opportunities? Are such efforts aligned to college and career readiness goals (and new standards and assessments)?</li> <li>▪ Are representatives of service learning interests and out-of-school learning programs involved in readiness strategy discussions?</li> </ul> <p><b>Comments and Evidence:</b></p>
<p><b>L. Communications Planning</b></p> <p><b>Already Happening:</b> Y N</p> <p><b>Interest:</b> H M L</p> <p><b>Impact:</b> H M L</p> <p><b>Complexity:</b> H M L</p> <p><b>Priority:</b> H M L</p>	<ul style="list-style-type: none"> <li>▪ Does the state have an integrated, multi-agency communication plan on the importance of college and career readiness and strategies to improve it? Does the plan include target audiences, key messages, key timelines and key communication channels? Does the state leverage powerful and meaningful voices?</li> <li>▪ Is the state actively implementing the communications plan? Is the implementation coordinated among the various agencies and stakeholders?</li> <li>▪ Is the subject of communications regularly discussed in the context of cross-sector meetings about college and career readiness?</li> </ul> <p><b>Comments and Evidence:</b></p>

**List here the top 3-4 priorities that the state would like to explore further:**

**1.**

**2.**

**3.**

**4.**

**What next steps make the most sense for the state?**