THE WASHINGTON STATE BOARD OF EDUCATION

A high-quality education system that prepares all students for college, career, and life.

Title:	Career Readiness: Presentation by the National Association of State Boards of Education and Discussion with the Workforce Training and Education Coordinating Board
As Related To:	☒ Goal One: Develop and support policies to close the achievement and opportunity gaps. ☐ Goal Two: Develop comprehensive accountability, recognition, and supports for students, schools, and districts. ☒ Goal Three: Ensure that every student has the opportunity to meet career and college ready standards. ☐ Goal Four: Provide effective oversight of the K-12 system. ☐ Other
Relevant To Board Roles:	☒ Policy Leadership ☐ System Oversight ☐ Advocacy ☐ Communication ☐ Convening and Facilitating
Policy Considerations / Key Questions:	The State Board of Education (SBE) will hear from representatives of the National Association of State Boards of Education (NASBE) and hold a discussion with the Executive Director and members of the Workforce Education and Training Coordinating Board. The SBE will consider how to define career readiness, and how to move forward with developing policies that support career readiness.
Possible Board Action:	☒ Review ☒ Approve ☐ Adopt ☐ Other
Materials Included in Packet:	☒ Memo ☐ Graphs / Graphics ☒ Third-Party Materials ☐ PowerPoint
Synopsis:	The SBE will hear from Robert Hull, Director of the Center for College, Career, and Civic Readiness, and Ace Parsi, Director for Deeper Learning, at NASBE. Robert Hull and Ace Parsi will present a summary of the work of a NASBE study group on career readiness. A report on the work of the study group is included in this section of board meeting materials. The Board will also have have the opportunity to discuss defining career readiness with Eleni Papadakis, the Executive Director of the Workforce Training and Education Coordinating Board (Workforce Board) and with Workforce Board members. The Board may also consider partnering with the Workforce Board to seek support from NASBE on a Deeper Learning grant to develop career readiness.

DEFINING CAREER READINESS

Policy Considerations

At past meetings the Board expressed an interest in developing a definition of career readiness as part of college and career readiness. The state's new college- and career-ready standards, assessments, and graduation requirements are arguably more focused on college readiness than career readiness, perhaps because college readiness is a more easily defined. And yet, defining career readiness maybe an important step in meeting the Board's strategic goal 1.B "Postsecondary Readiness and Access: Develop policies to promote equity in postsecondary readiness and access", and goal 1.B.1 "Advocate expanded programs that provide career and college experiences for underrepresented students."

At the January 2016 board meeting, the State Board of Education (SBE) will have the opportunity to further develop policies on career readiness through conversation with experts and partners. The Board will hear from Robert Hull, Director of the Center for College, Career, and Civic Readiness, and Ace Parsi, Director for Deeper Learning, at the National Association of State Boards of Education (NASBE). Mr. Hull and Mr. Parsi will present a summary of the NASBE report on the study group on career readiness, Toward A Better Balance: Bolstering The Second "C" in College and Career Readiness, which is included in this section of board meeting materials.

The SBE will also have the opportunity to discuss defining career readiness with Eleni Papadakis, the Executive Director of the Workforce Training and Education Coordinating Board (Workforce Board) and with Workforce Board members.

At the January 2016 board meeting, the Board may consider moving forward with the Workforce Board on a NASBE Deeper Learning project to explore policies intended to advance career readiness among Washington high school students.

Past Board Work on Career Readiness

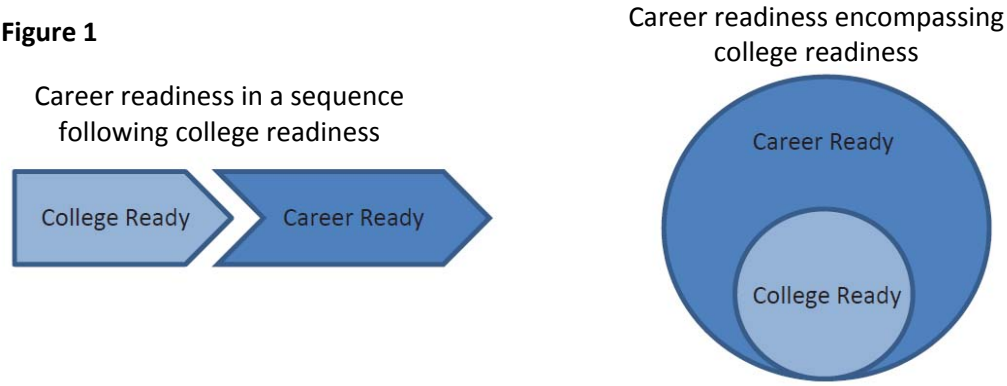
At the November 2015 board meeting Tim Probst, Director of Workforce Development Initiatives at the Washington State Employment Security Department, presented on the Career Readiness for a Working Washington program. Board packet materials for the November meeting may be found at: http://www.sbe.wa.gov/documents/BoardMeetings/2015/Nov/06_CareerReadinessC.pdf

The Board also discussed career readiness as part of the strategic planning process at the July 2015 board meeting. A staff memo on Defining Career Readiness was available as part of the meeting materials for the Strategic Plan Review: http://www.sbe.wa.gov/documents/BoardMeetings/2015/Nov/06_CareerReadinessC.pdf

That memo showed a visual conceptualization of the relationship between career readiness and college readiness (figure 1). The image showing college readiness encompassed by career readiness, rather than in a linear relationship, more aptly captured Board discussion.

In May, 2015, the Board approved 21 Career and Technical Education (CTE) course equivalencies for math and science. These equivalencies help students attain both academic and technical skills and knowledge.

Figure 1



In 2014, Member (and current Chair) Muñoz-Colón served on the Legislative Task Force on Career Education Opportunities. The purpose of the Task Force was to identify strategies for how education that supports career readiness, including but not limited to CTE, may be better integrated into secondary education opportunities for all students. Recommendations of the Task Force included:

1. Assuring options for students
2. Increase student/parent awareness of high school graduation requirements
3. Increased counseling
4. Incorporating Common Core Standards and assessments
5. Improvement to the High School and Beyond Plan
6. Statewide policies for CTE
7. Increase work-integrated learning opportunities

Definitions of Career Readiness

Many definitions of career readiness acknowledge two factors, as depicted in figure 2, content knowledge, and a second factor comprised of characteristics necessary for work-success. These characteristics are variously described and are, to some degree, difficult to quantify and assess. Often these characteristic are referred to as employability skills or dispositions. Some definitions of career readiness separate academic content knowledge from specific technical skills and knowledge for particular occupations, such as depicted in figure 3. Other definitions of emphasize preparation for next steps, as shown in figure 4.

Terms other than “dispositions” or “employability skills” are often used that may have somewhat different or overlapping meanings. These include “attributes,” “soft skills,” “social emotional learning,” “21st century skills,” and “habits of mind.” Currently the Social Emotional Learning Benchmarks Workgroup, a Legislative workgroup, is convening to recommend comprehensive benchmarks for developmentally appropriate interpersonal and decision-making knowledge and skills of social and emotional learning for grades k-12 that build on what is being done in early learning. It may be worth exploring further to what degree social-emotional learning benchmarks coincide with the characteristics necessary for work-success.

Figure 2:

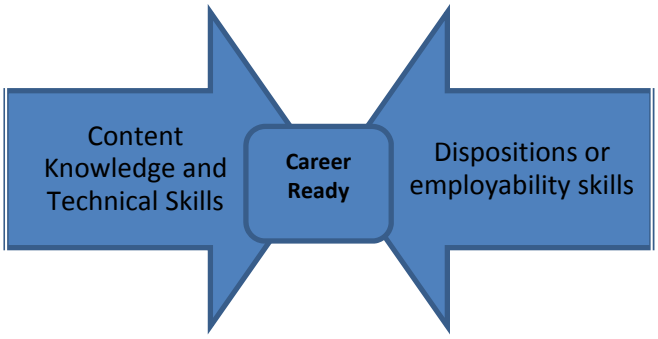


Figure 3:

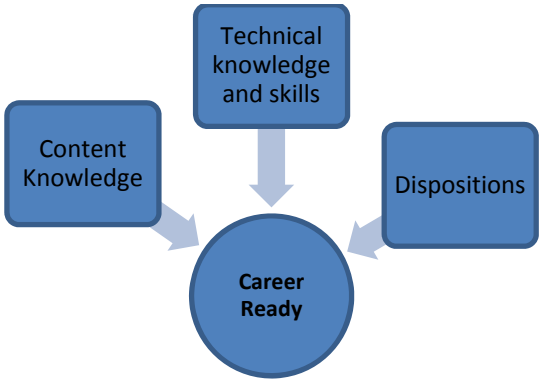
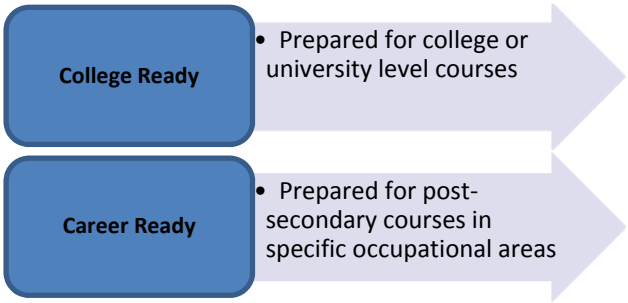


Figure 4:



Below are three examples of descriptions or definitions of career readiness that can be approximated by the visuals in figures 2, 3 and 4:

Career dispositions and evolving skills and knowledge (Figure 2)

> "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 academic, technical and workplace knowledge, skills and dispositions that vary from one career to another and change over time as a person progresses along a developmental continuum. Knowledge, skills and dispositions that are inter-dependent and mutually reinforcing."
>
> -Career Readiness Partner Council

Three skill areas (Figure 3)

> "Career readiness involves three major skill areas: *core academic skills* and the ability to apply those skills to concrete situations in order to function in the workplace and in routine daily activities; *employability skills* (such as critical thinking and responsibility) that are essential in any career area; and *technical, job-specific skills* related to a specific career pathway. These skills have been emphasized across numerous pieces of research and allow students to enter true career pathways that offer family-sustaining wages and opportunities for advancement."
>
> -Association for Career and Technical Education

Prepared for post-secondary education and training (Figure 4)

> "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. … College readiness general means the ability to complete a wide range of general education courses, while career readiness refers to readiness for courses specific to an occupational area or certificate."
>
> -David Conley, 2012

A number of states focus on content knowledge and define career and college readiness based on mastery of content sufficient for success in introductory courses at two- and four-year colleges and universities without remediation. This definition of career and college readiness aligns with the Achievement Level descriptor for a Level 3 on the Smarter Balanced assessment.

In 2013 the Center on Education Policy conducted a survey of states on the states' definitions of career readiness. Fourteen of the 46 states that responded to the survey had statewide definitions of career or work readiness, and 20 states were working on a definition. Washington was reported as not having a definition.

Career Ready Standards and Skills

21st Century Skills

In Washington, Career and Technical Education (CTE) adopted 21st Century Skills (updated as the Framework for 21st Century Learning), as outlined by the Partnership for 21st Century Skills (P21). The framework was developed by educators and business leaders to define and illustrate the skills and knowledge students need to succeed in work, life and citizenship. These skills are embedded in all CTE courses, and have been required in CTE course frameworks approved by OSPI since 2010. The CTE course equivalency frameworks approved by the Board included specific alignment with 21st Century Skills.

P21 identified Sammamish High School in the Bellevue School Districts as a Exemplar School, part of a program to identify and promote examples of successful implementation of 21st learning. The school conducted a complete curriculum and instruction redesign to incorporate problem-based learning in all classrooms, in both academic and career and technical content areas, to promote critical thinking, collaboration, and authentic problem solving.

Sammamish High School is an example of a school that has committed to incorporating 21st century learning throughout the school. Some states are endeavoring to incorporate 21st century learning statewide. An example is Iowa, which has incorporated the 21st Century Learning Framework, along with the Common Core State Standards and Next Generation Science Standards, into the state standards, Iowa Core. Iowa's content standards and 21st Century skills are broken down by subject and grades, so that the expectations of the knowledge and skills that are being taught at each grade level are clear.

Examples of Career Standards in Other States: California Career Skills and Oregon's Essential Skills

California and Oregon are two states that have adopted state standards that incorporate career skills. The skills are intended to be embedded across both academic and CTE content areas.

In California, the State Superintendent of Public Instruction has directed the California Department of Education to implement his California Career Readiness Initiative designed to support, sustain and strengthen CTE in the state. Part of the work is to define and promote career readiness and 21st century skills, which has resulted in the Standards for Career Ready Practice (included in this section of meeting materials). These standards describe the fundamental knowledge and skills that students need to prepare for transition to postsecondary education, career training and the workforce.

In Oregon, an Essential Skills Taskforce made up of K-12 educators, higher education educators, business and community representatives, and students defined nine essential skills in 2007. In 2008, the Oregon State Board of Education adopted the Essential Skills (included in this section of meeting materials) as graduation requirements, that are being phased-in.

Work-based Learning

Washington rule WAC 392-410-315 authorizes school districts to accept worksite learning in lieu of required or elective credit if the worksite learning meets the requirements of the rule. Statutory authority of the rule is RCW 28A.305.130, SBE's Powers and Duties. The SBE may consider if amending the work-based learning process may help Washington students acquire career skills and credits toward graduation.

Additional Resources

College and Career Readiness: What Do We Mean?, (2012). ConnectEd, The California Center for College and Career. ConnectEd's work has had a strong impact on California's efforts to better integrate CTE with rigorous, college preparatory academics.

Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century, (2012). National Academies Press.

Career Readiness Assessments Across States: A Summary of Survey Findings, (2013). Center for Education Policy.

Action

The SBE may consider moving forward with the Workforce Board and other partners, on a NASBE Deeper Learning project to further career readiness. The Board may begin to identify a direction for the state, such as the direction that Iowa, California, or Oregon have taken, that uses a definition of career readiness to create policy designed to further career readiness among Washington high school students.

If you have questions regarding this memo, please contact Linda Drake at linda.drake@k12.wa.us.

GUIDING QUESTIONS FOR DISCUSSIONS ON CAREER READINESS

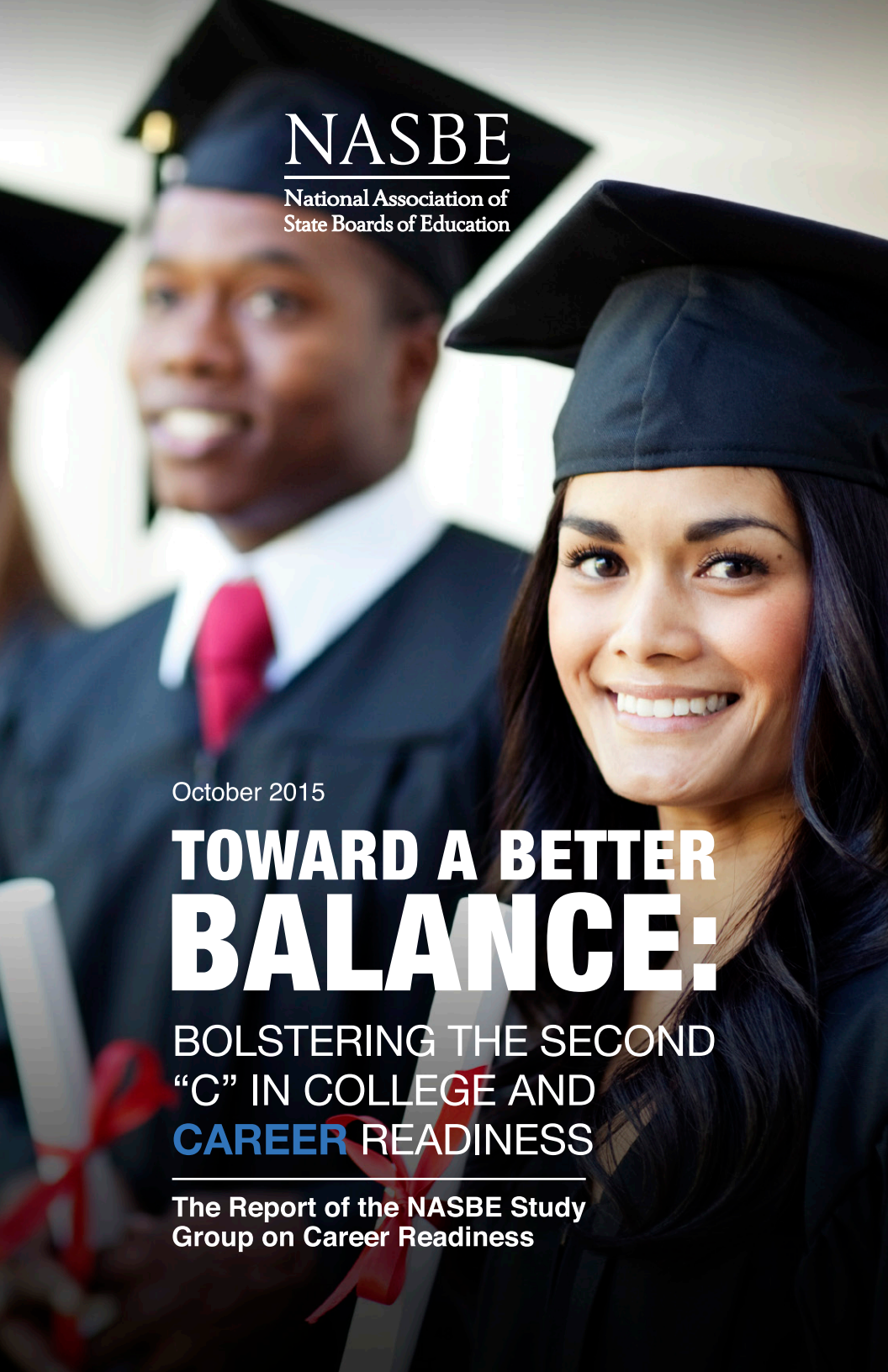
Questions for the presentation and discussion with Robert Hull and Ace Parsi:

- What are some core "take-aways" from Toward a Better Balance: Bolstering the Second "C" in College and Career Readiness? (This report is provided to the Board as part of the meeting materials.)
- What is the profile of a few that states that have meaningfully advanced career readiness as part of a career- and college-ready effort?
- How is the ESEA reauthorization likely to impact these efforts?

A PowerPoint presentation from NASBE will be posted with the online board meeting materials by Friday, January 8, 2016.

Questions for the discussion with the Workforce Training and Education Coordinating Board:

- What is career readiness? How is our current system supporting or not supporting this vision of career readiness?
- Other states have included standards for career readiness for all students, as part of a broader college- and career-ready effort. Should Washington consider adopting career-readiness standards for all students?
- How do employers determine the career readiness of a prospective employee? Or for Labor, how is readiness determined for apprenticeship applicants?
- What could we potentially accomplish if the Workforce Board and SBE worked together on making CR an integral component of K-12 education? Do we want to move forward on exploring such a partnership?



NASBE

National Association of State Boards of Education

October 2015

TOWARD A BETTER BALANCE:

BOLSTERING THE SECOND "C" IN COLLEGE AND CAREER READINESS

The Report of the NASBE Study Group on Career Readiness

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WHY CAREER READINESS?

In recent years, state board of education members from across the country have expressed a growing concern about what lies ahead for students after high school. Are they prepared for postsecondary education? The world of work? To participate in a democracy? To be engaged members of a community? To navigate financial decisions? In short, are they prepared for life?

Answering these questions isn't easy. It's tantamount to a self-evaluation for those charged with overseeing the welfare of the nation's K-12 education system. Yet as data and anecdotal evidence mount, it is clear that policymakers must advance beyond simply repeating the mantra of "college and career readiness for all."

A number of factors are fueling the concern about students' readiness for their next steps after graduation:

- Employment projections indicate a need for a better educated and more highly skilled workforce. By 2020, the portion of jobs requiring some level of postsecondary education will reach 65 percent, and unless student outcomes in the United States improve significantly, demand will not be met.[1]
- Despite employers' demand for some level of postsecondary education, only 8 out of 10 students graduate from high school on time in the United States. Disaggregating outcomes reveals an even more troubling figure: There is a persistent gap for Hispanic students and black students, who graduate at significantly lower rates than their white peers (73 and 69 percent, respectively, compared with 86 percent for white students).[2]
- Among those who graduate from high school, only 66 percent enroll in two- or four-year programs the following fall.[3] And, a full 20 percent of those who enroll must take remedial coursework.[4]
- Only 29 percent of the students at two-year institutions earn a degree or certificate in three years; only 59 percent of students at a four-year institution finish in six years.[5]
- There is a mismatch between degrees earned and available jobs: A McKinsey study found that across the globe, 75 million young people are unemployed, yet businesses can't find enough skilled

workers to fill openings[6]—a message that business and industry stakeholders have echoed repeatedly in recent years. In another survey of Business Roundtable members, 95 percent indicated a skills shortage within their companies.[7]

Beyond the deficits in the education and workforce pipelines, studies call into question preparedness on a whole range of measures. For many adults in the United States, a long-standing goal of school is to prepare students for citizenship. Yet only 45 percent of 18- to 29-year-olds voted in 2012, down from 51 percent in the previous presidential election.[8] Further, among youth with at least some college education, turnout was 66 percent while those with no college experience turned out at a rate of only 35 percent.[9]

Another frequently cited deficit in the wake of the Great Recession is financial literacy. One study found that 18 percent of 15-year-old students could not answer the most basic financial questions.[10] Another study of first-year college students found that financial literacy is actually on the decline for tasks such as paying bills on time, following a budget, or balancing a checkbook.[11]

The Career Readiness Study Group's conclusion after exploring these and other data points: The lack of readiness for college, careers, and civic life is not a problem that one group of stakeholders can fix, nor will focusing on career readiness alone be sufficient. But neither can these problems sit on the back burner any longer. Better preparing students for their adult lives will require collaboration of a broad spectrum of agencies, organizations, and individuals committed to building an aligned system that supports individuals from cradle to—and through—career. Approaching the problem through the lens of career readiness is by no means a silver bullet, but it offers a fresh perspective on a decades-old strategy that has focused almost exclusively on college preparation—a strategy that is not working for students, teachers, families, or communities.

State boards of education can play a critical role. They can closely examine the foundation upon which the entire education system is built: Are there cracks? Are they significant? Is there a foundation at all? Or is it incomplete? State boards are uniquely positioned to ask questions, to call for a time-out, and to look at the big picture to ensure that policy—big and small—is grounded in preparing students for life. What follows is a set of recommendations and strategies, developed by the study group, that can launch state boards of education into a discussion of these issues.

WHAT CAN STATE BOARDS DO TO ADVANCE CAREER READINESS?

The study group's recommendations are grounded in the premise that college and career readiness requires academic rigor, real-world workplace experiences, and employability skills provided through multiple pathways that allow every student to reach his or her potential. For years now, the phrase "college and career ready" has been used to describe countless reform efforts, reports, studies, and programs, often with little thought given to the second "c"—careers. As the data attest, these efforts have been insufficient. They point to the legitimate need for state policymakers to achieve a better balance by creating a comprehensive infrastructure that supports and values college and career readiness equally.

Build Knowledge and Understanding of Postsecondary, Business, and Workforce Initiatives

Education and workforce systems can sometimes operate in silos in the United States. Take these four major federal education and workforce policies:

- The Elementary and Secondary Education Act (ESEA), signed into law in 1965, addresses primary and secondary education.
- The Higher Education Act (HEA), also signed into law in 1965, largely governs federal student aid programs.
- The Carl D. Perkins Career and Technical Education Act (Perkins), first authorized in 1980, focuses on career and technical education (CTE), which can span secondary and postsecondary.
- The Workforce Innovation and Opportunity Act (WIOA), first passed in 1988 and replacing the Job Training Partnership Act, addresses workforce development.

Most state board oversight tends to coincide with the policy areas raised in ESEA. A state might have another board to oversee community colleges, another for four-year institutions, perhaps another for CTE, and even more boards for workforce development and labor. Yet the work of all of these boards is inextricably linked

because students may straddle multiple systems or move from one to another—and back again—throughout their lifetimes.

In order to fully achieve college and career readiness for all students, these boards and agencies must do better at aligning their goals and objectives. As a state board member, you can support better alignment by boning up on the roles and authorities of other governing boards, agencies, and stakeholders in your state. If CTE is not housed within the state education agency (SEA), who is charged with administering Perkins? State board members can set up a meeting to learn more. Does your board have a formal connection to the higher education governing board in your state? How are WIOA dollars for youth allocated in your state, and how does that connect with the policies and priorities for other career training initiatives? Building knowledge about the governance structure, policies, programs, and funding—and getting to know the people affiliated with them—is a critical first step to building a comprehensive system that values career readiness.

Further, many state board members spend time in schools and classrooms, observing and meeting teachers and students. In order to better understand what happens to students once they leave high school, it can be just as critical for state board members to observe and interact with systems, organizations, and individuals who focus on postsecondary education and career preparation. During the past year, members of the Career Readiness Study Group spent time in their respective states learning about the many boards and agencies that address career readiness. They forged new relationships, learned about workforce development initiatives, visited manufacturing plants, and explored labor market data—all steps that any state board member can replicate.

Engage with a Broad Spectrum of Stakeholders to Define Career Readiness

Many groups have a stake in college and career readiness. As a result, definitions, goals, and objectives vary from agency to agency, program to program, and even individual to individual. And perspective matters. How a stakeholder in the K-12 system views college and career readiness might be very different from the views of an individual who works for the state's economic development agency, a business executive, or a parent. And while there is a strong base of research and agreement about academic benchmarks, research and practice do not speak so clearly on what it means for a student to be

Box 1. College versus Careers

US policy and practice focus strongly on preparing students to enter four-year degree programs after high school. This dates in part to passage of the GI Bill in 1944, when subsidies expanded access for millions of Americans returning from World War II. College enrollment increased nearly sixfold by 1980. In one generation, public policy—and opinion—coalesced around the idea that a bachelor's degree was a guaranteed ticket to the middle class.

Standards-based reform beginning in the 1980s further entrenched college prep coursework in the American classroom, at a time when vocational education faced a serious image problem. For many years, low-achieving students were tracked into vocational programs, where they were prepared for low-wage jobs with little to no room for career advancement. Even more problematic, the programs did not require these students to complete academic courses needed for entry into college. Despite a shift to a more rigorous framework that combines academic and career coursework, the negative image persists for many parents, policymakers, and even educators. Yet the lines between college ready and career ready are increasingly blurred as evidence mounts that living-wage jobs require postsecondary education.

Source: Draws on Lori Meyer, "Career Readiness: Bridging the Gap between Education and Workforce Preparation," *Policy Priorities* 20, no. 3 (Alexandria, VA: ASCD, fall 2014), http://www.ascd.org/publications/newsletters/policy-priorities/vol20/num03/toc.aspx. Copyright 2014, ASCD. Reprinted with permission. Learn more about ASCD at www.ascd.org.

prepared for the workplace. Combining the two terms together under one rhetorical umbrella has added confusion for stakeholders who are trying to determine whether college ready and career ready mean the same thing or something different (box 1).

State definitions reflect this multiplicity of stakeholder perspectives and the knowledge gap. In a 2013 survey of state CTE directors, only 14 reported having a statewide definition of career readiness, but an additional 20 indicated they were developing a definition.[12] A study conducted a year later by another group reported that 32 states had a working definition of college and career readiness.[13] A third study, published in 2013, found that all but one state had a definition, most often defined as prepared for success in entry-level, credit-bearing college courses.[14]

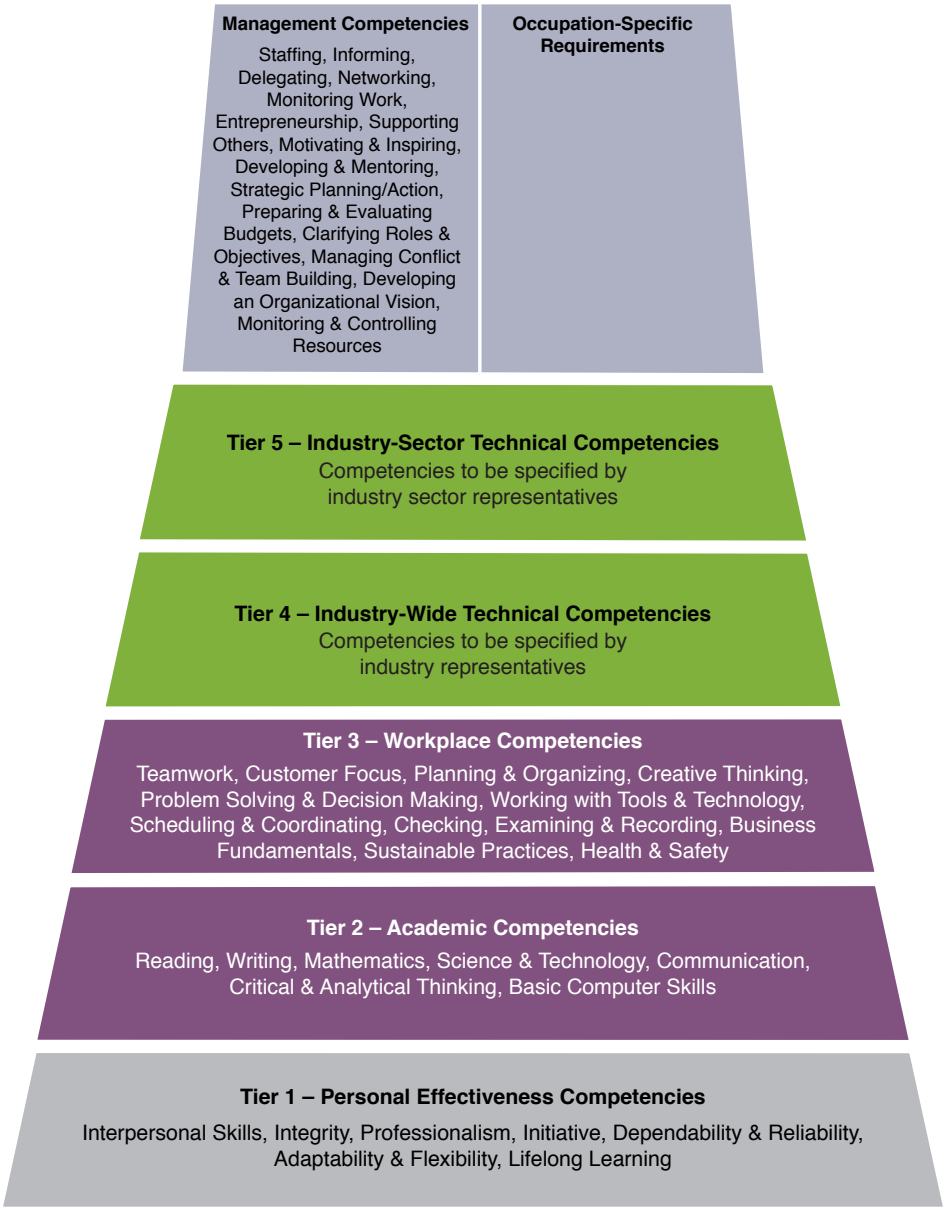
Part of the confusion stems from too many states using the label college and career ready to describe reform efforts without much debate about what it meant. They simply tacked the career label onto benchmarks for college readiness. States did so with good intentions, as part of broader efforts to make the education system more equitable and rectify decades of tracking poor students and students of color into vocational education programs while middle- and upper-income (and mostly white) peers were tracked into college prep coursework. Yet without a clear understanding and agreement about what career readiness means, many state policies and programs are not advancing in the direction of college and career readiness for all. Rather, states' attention is focused on a shortsighted race with college acceptance as the finish line.

Among the states and national organizations that have developed definitions that address career readiness specifically, there are generally two approaches: those that include technical knowledge and skills and those that do not. Two other common elements are academic knowledge and skills and workplace knowledge, skills, and dispositions (sometimes referred to as lifelong learning skills, soft skills, or 21st century skills; also see figure 1).[15]

Given the lack of clarity about what it means to be college *and* career ready, the study group members concluded that defining the terms is a critical step for states in order to ensure rigor, equity, and alignment.

If feasible, the definition should be developed collaboratively by a broad range of stakeholders: K-12, postsecondary, workforce,

Figure 1. Foundational Knowledge and Skills for the Workplace



Source: US Department of Labor. The model is based on a review of 22 industry models.

business, and industry representatives (one effort is represented in box 2). A collaborative process can help to align goals and objectives across systems and agencies, particularly if involved stakeholders agree to adopt the definition for use within their respective agencies and organizations. For state boards, a definition can guide policy toward a common goal.

Who leads the process of developing a definition will vary from one state to the next. Perhaps this conversation is already under way and a state board of education member participates as part of an effort led by another stakeholder group. Perhaps another agency or the governor already gathered stakeholders to define college and career readiness but failed to include the state board. Perhaps defining college and career readiness has not made it to the top of the agenda, and your board decides to make it a priority and take the lead in bringing together stakeholders. Regardless of how it happens, start by focusing on making sure it happens in the first place and that the state board of education has a seat at the table.

Box 2. What It Means to Be 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.… These include both academic and technical knowledge and skills and employability knowledge, skills, and dispositions."

—From "Building Blocks for Change: What It Means to Be Career Ready," on the website of the Career Readiness Partner Council, a broad-based coalition of education, policy, business, and philanthropic organizations that was formed in 2012.

Ensure State Board Policies Value Career Readiness

In each state, a host of policies and programs are in place to address career readiness: from the broad, symbolic "college and career" nomenclature that every state uses to policies that hone in on standards, graduation requirements, and career-focused programs such as CTE. Unfortunately, career readiness in most states is addressed in a patchwork quilt that often reaches only a small subset of students. This subset might include juniors and seniors who are participating in a career academy within a comprehensive high school, a one-off event such as a career fair, or an after-school activity or club. In stark contrast, the college prep curriculum touches all students, from the minute they arrive at school until they depart for home. What follows is a brief overview of four areas in which state boards of education tend to have authority; these areas can provide a starting point for examining career readiness through a policy lens.

Standards. The degree to which education standards address career readiness is up for debate, in part because the foundational work to define career readiness hasn't been done. Again, while most standards are pitched as being focused on "college and career," there is little to no evidence of attention to much beyond college preparation. Most states revised their academic standards for English/language arts and mathematics in the last five years in an effort to better align student learning to the demands of college and the workplace. Other academic subjects followed suit, including science. However, questions remain about whether the standards adequately address the "soft" skills that often serve as a bridge between academic and technical content: communications, teamwork, and critical thinking skills, for example. CTE standards have also been updated in recent years, in part to reflect the demands of the 21st century work place but also to better align with the newly revised academic content standards. The CTE standards include academic, technical, and workplace components for career pathways but generally apply to a small subset of students who self-select as CTE concentrators (meaning they earned four or more technical credits in a career area).

While most state boards have the authority for their state's academic learning standards, many also have either total or joint authority for their states' CTE learning standards (see map), thus opening the door for state boards to approach the broader issue of career readiness more holistically.

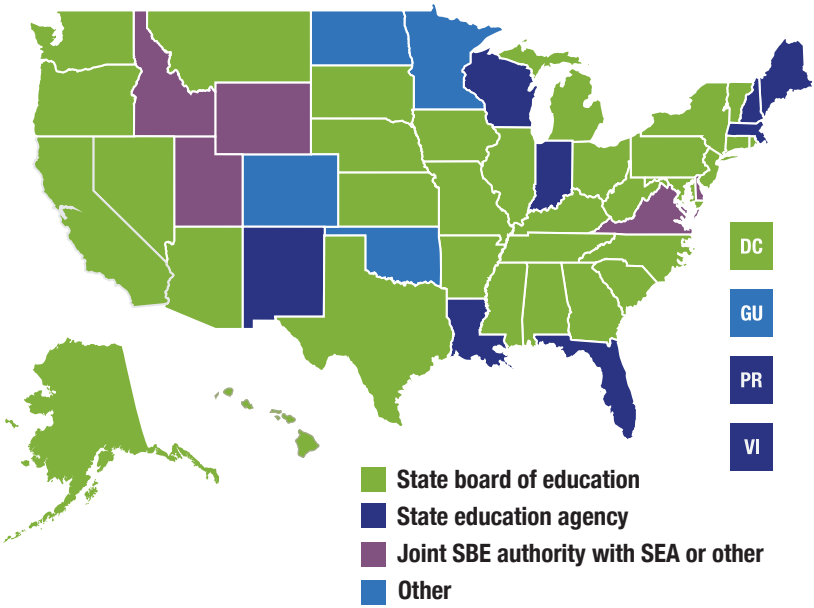
Should every state jump to using CTE standards for all high school students? Not necessarily. Do the academic standards that many states have developed in recent years address career readiness? Again, not necessarily. What a state board can do is to define college and career readiness and make sure the standards align to that definition. Standards drive what students learn in the classroom. If the standards don't address career readiness, then chances are students aren't learning about career readiness.

Assessments. On the assessment front, state policy and practice run the gamut. States have a long history of assessing academic knowledge, but when it comes to technical and employability knowledge and skills, the state of the states is less clear, both in terms of what is tested, who is being tested, and for what purpose. What is clear: Career readiness testing is much more decentralized than academic testing and varies greatly from one district to the next.[16] The Partnership for Assessment of Readiness for College and Careers (PARCC), Smarter Balanced Assessment Consortium (Smarter Balanced), the American Institutes for Research, and others vie for state contracts to assess core academic subject knowledge for students. States and districts gauge workplace readiness for some, but usually not all, students through exams such as ACT's WorkKeys. (Only four states require all students to take the exam.[17]) Finally, states and school districts also use an almost endless number of industry-based or certification exams, primarily for CTE concentrators.

Armed with a state definition of college and career readiness, coupled with a strong understanding of how state standards align to that definition, state board members can begin to see the landscape of career readiness assessment in their state. What career readiness assessments does your state administer? Who takes the tests and when, and what are the results used for? There is no consensus on what career readiness assessment should look like, particularly if all students are to be tested. Most American students are not exposed to much if any career readiness testing.[18] What is tested tends to be what is taught, so examining assessment will be critical if there is to be significant progress in valuing career readiness.

Accountability. How the results are used varies as much as the assessments themselves. A 50-state analysis found that most states do not value both college and career readiness equally in their accountability systems.[19] When career readiness is included, it is

State Authority for CTE Standards



Source: National Association of State Directors of Career Technical Education Consortium, "The State of Career Technical Education: An Analysis of State CTE Standards," 2013.

often limited to CTE concentrators and only to meet federal reporting requirements. Graduation requirements also fail to value career readiness. Requirements are still centered on Carnegie units and emphasize academic courses (English language arts, mathematics, science, social studies), although many require a unit of CTE.[20] How are career-focused indicators included in your state? Are career readiness measures included in public reporting, such as report cards?

Teacher Preparation and Professional Development. Who leads classroom instruction is perhaps the least studied aspect of career readiness. Exploration of teacher training, professional development, and regulations tends to focus on academic content knowledge and pedagogy skills. The limited number of reports that explore the topic do so through a CTE lens, which can offer valuable insight but is not sufficient if the goal is to ensure that all students are career ready. Core academic subject teachers tend to have content expertise and

often pedagogy skills, whereas CTE teachers tend to have workplace experience, technical knowledge, and an understanding of how to apply academic content in a work setting.[21] College and career readiness instruction requires a hybrid: teachers who merge the best of academic and technical knowledge with 21st century skills and application of the content in real-world work situations.

Other Ways Career Readiness Is Valued. Standards, assessment, accountability, and teacher certification and professional development are the bread and butter of state board work. But there are other ways that career readiness can be addressed, such as through local nonprofit programs, private grants, partnerships with business and industry, after-school activities, and classroom practice that stretches the boundaries of the traditional lecture model of teaching. More often, these activities fall outside the direct authority of state boards, but members should be knowledgeable about the variety of ways that career readiness is being addressed throughout the state and ensure that state policy does not create barriers to successful implementation. These activities might include work-based learning experiences gained during the school day, before, or after; project-based learning; teacher externships at local businesses; and a public/private partnership between a local school district, the neighboring community college, and a regional business.

A Holistic Approach. The study group concluded that state board members should closely examine state policies to determine the degree to which career readiness is addressed. Members should have a firm grasp of the policies that fall within the K-12 realm, which might be more expansive than standards, assessment, accountability, and teacher training.

Explore the major areas for which your state board has authority: Do standards include workplace readiness measures or technical knowledge and skills for all students? How is career readiness assessed? Do all students have the opportunity to be tested? Is career readiness part of the state's accountability formula?

The ultimate goal is to create a comprehensive, aligned policy strategy for college and career readiness, but a critical first step is evaluating what's already in place and why. Once a board has a firm grasp on the degree to which career readiness is addressed in state policy, it can then begin the task of determining what needs to change and how.

LOOKING AHEAD

At the final meeting of the study group in June, members urged NASBE to continue to delve further into the topic of career readiness. Unlike some topics, the career readiness landscape is vast and still in its infancy when compared with the understanding of college readiness. The study group concluded their deliberations with a request to state board members to take the long view. Discrete quick-fix policies will not help the nation's youth achieve college, career, and civic readiness. State boards of education are well positioned to promote a vision for education that values all of these elements and looks beyond college entrance as the end goal.

RESOURCES

The Career Readiness Study Group heard from many experts and read extensively on the topic. In addition to the references listed throughout the report, presenters and members of the study shared a number of resources they believe state boards will find useful:

Achieving Collegiate Excellence and Success (ACES) is a collaborative effort between Montgomery College, Montgomery County Public Schools, and the Universities at Shady Grove to support students and provide a seamless path to a bachelor's degree.

ACT, a nonprofit that offers the college admissions and placement test of the same name to high school students, also provides assessment, research, information, and program management services to the education and workforce development fields. One such resource is their report *Building a Common Language for Career Readiness and Success: A Foundational Competency Framework for Employers and Educators*.

The Alliance for Excellent Education is a national policy and advocacy organization dedicated to ensuring that all students, particularly those who are traditionally underserved, graduate from high school ready for success in college, work, and citizenship. The Alliance offers federal policy updates and analyses on issues related to college and career readiness in secondary schools.

The **Association of Career and Technical Education (ACTE)** is the largest national education association dedicated to preparing youth and adults for careers. The National Association of State Directors of Career

Technical Education Consortium (NASDCTEc) represents the state and territory heads of secondary, postsecondary, and adult CTE. Both organizations offer a host of resources on CTE programs and funding, as well as federal and state policy.

The Center for Education and Workforce, housed within the US Chamber of Commerce Foundation Center, mobilizes the business community to be more engaged partners and to challenge the status quo. It connects education and workforce reforms to economic development. The center offers a host of resources on the skills gap.

ConnectEd: The California Center for College & Career is dedicated to advancing practice, policy, and research aimed at helping young people prepare for both college and careers through Linked Learning—a high school improvement approach.

The Connecticut Technical High School System recently released a strategic plan that emphasized academic, structural, and economic areas called Tomorrow's Framework.

The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five US extrastate jurisdictions. CCSSO released a report and launched an initiative in late 2014 focused on career readiness, *Opportunities and Options: Making Career Preparation Work for Students*.

The Education Commission of the States (ECS), tracks state policy trends, translates academic research, provides unbiased advice, and creates opportunities for state leaders to learn from one another. ECS provides an online, 50-state policy database on a range of topics related to college and career readiness.

The Guam Department of Education initiates career readiness efforts beginning in elementary schools with career fairs, portfolios, and hands-on STEM activities.

Jobs for the Future (JFF) designs and drives the adoption of innovative and scalable education and career training models and systems that lead from college readiness to career advancement and also develops and advocates for the federal and state policies needed to support these solutions. JFF is spearheading several work readiness initiatives, including Pathways to Prosperity.

Junior Achievement USA (JA) is the world's largest organization dedicated to educating students about workforce readiness,

entrepreneurship, and financial literacy through experiential, hands-on programs.

The National Center for Learning Disabilities (NCLD) works to improve the lives of the one in five children and adults nationwide with learning and attention issues by empowering parents and young adults, transforming schools, and advocating for equal rights and opportunities. NCLD works to create a society in which every individual possesses the academic, social, and emotional skills needed to succeed in school, work, and life. It offers a number of resources, including a study focused on how students feel about their journey before and after high school.

The National Skills Coalition is a broad-based coalition working toward a vision of an America that grows its economy by investing in its people so that every worker and every industry has the skills to compete and prosper. The organization focuses on advancing state and federal policies that support these goals and offers a wealth of resources on WIOA and other career-related legislation and funding.

Nebraska's Career Education Model promotes a vision for college and career readiness.

The Southern Regional Education Board (SREB) works with 16 member states to improve public education at every level, from pre-K through Ph.D. SREB has a long history of working with states on career readiness and CTE initiatives.

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13. Education Commission of the States, *Blueprint for College Readiness: A 50-State Analysis* (Denver, October 2014), http://www.ecs.org/docs/ECSblueprint.pdf; McMurrer et al., *Career Readiness.*

14. Peter Conforti, "What Is College and Career Readiness?A Summary of State Definitions," *Bulletin*, Issue 22 (New York: Pearson, 2013), http://researchnetwork.pearson.com/wp-content/uploads/TMRS-RIN_Bulletin_22CRCDefinitions_051313.pdf.

15. Sometimes different stakeholders use different terms. It can be confusing even for the most adept education policy professionals. Find out which terms are used in your state, what each term means, and in what context each is used.

16. McMurrer et al., *Career Readiness.*

17. ECS, *Blueprint for College Readiness.*

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NASBE
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State Boards of Education

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NASBE is a nonprofit, private association that represents state and territorial boards of education. Its principal objectives are to strengthen state leadership in education policymaking, promote excellence in the education of all students, advocate equality of access to educational opportunity, and ensure continued citizen support for public education.

Standards for Career Ready Practice†

Standards for Career Ready Practice describe the fundamental knowledge and skills that students need to prepare for transition to postsecondary education, career training, or the workforce. These standards are not exclusive to a career pathway, a career technical education (CTE) program of study, a particular discipline, or level of education. Standards for Career Ready Practice are taught and reinforced in all career exploration and preparation programs or integrated into core curriculum, with increasingly higher levels of complexity and expectation as a student advances through a program of study. Standards for Career Ready Practice are a valuable resource for CTE and academic teachers in the design of curricula and lessons that teach and reinforce the career-ready aims of the CTE Model Curriculum Standards and the Common Core State Standards.

1. Apply appropriate technical skills and academic knowledge.

Career-ready individuals readily access and use the knowledge and skills acquired through experience and education. They make connections between abstract concepts with real-world applications and recognize the value of academic preparation for solving problems, communicating with others, calculating measures, and performing other work-related practices.

2. Communicate clearly, effectively, and with reason.

Career-ready individuals communicate thoughts, ideas, and action plans with clarity, using written, verbal, electronic, and/or visual methods. They are skilled at interacting with others: they are active listeners who speak clearly and with purpose, and they are comfortable with terminology that is common to workplace environments. Career-ready individuals consider the audience for their communication and prepare accordingly to ensure the desired outcome.

3. Develop an education and career plan aligned with personal goals.

Career-ready individuals take personal ownership of their educational and career goals and manage their individual plan to attain these goals. They recognize the value of each step in the educational and experiential process, and they understand that nearly all career paths require ongoing education and experience to adapt to practices, procedures, and expectations of an ever-changing work environment. They seek counselors, mentors, and other experts to assist in the planning and execution of education and career plans.

4. Apply technology to enhance productivity.

Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring and using new technology. They understand the inherent risks—personal and organizational—of technology applications, and they take actions to prevent or mitigate these risks.

5. Utilize critical thinking to make sense of problems and persevere in solving them.

Career-ready individuals recognize problems in the workplace, understand the nature of the problems, and devise effective plans to solve the problems. They thoughtfully investigate the root cause of a problem prior to introducing solutions. They carefully consider options to solve a problem and, once agreed upon, follow through to ensure the problem is resolved.

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†Prepared by the California Department of Education. Adapted for California and based on the "Career Ready Practices" adopted by the Common Career Technical Core (CCTC). The CCTC practices are posted at http://www.careertech.org/.

6. Practice personal health and understand financial literacy.

Career-ready individuals understand the relationship between personal health and workplace performance. They contribute to their personal well-being through a healthy diet, regular exercise, and mental health activities. Career-ready individuals also understand that financial literacy leads to a secure future that enables career success.

7. Act as a responsible citizen in the workplace and the community.

Career-ready individuals understand the obligations and responsibilities of being a member of a community and demonstrate this understanding every day through their interactions with others. They are aware of the impacts of their decisions on others and the environment around them, and they think about the short-term and long-term consequences of their actions. They are reliable and consistent in going beyond minimum expectations and in participating in activities that serve the greater good.

8. Model integrity, ethical leadership, and effective management.

Career-ready individuals consistently act in ways that align with personal and community-held ideals and principles. They employ ethical behaviors and actions that positively influence others. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the direction and actions of a team or organization, and they recognize the short-term and long-term effects that management's actions and attitudes can have on productivity, morale, and organizational culture.

9. Work productively in teams while integrating cultural and global competence.

Career-ready individuals contribute positively to every team, as both team leaders and team members. To avoid barriers to productive and positive interaction, they apply an awareness of cultural differences. They interact effectively and sensitively with all members of the team and find ways to increase the engagement and contribution of other members.

10. Demonstrate creativity and innovation.

Career-ready individuals recommend ideas that solve problems in new and different ways and contribute to the improvement of the organization. They consider unconventional ideas and suggestions by others as solutions to issues, tasks, or problems. They discern which ideas and suggestions may have the greatest value. They seek new methods, practices, and ideas from a variety of sources and apply those ideas to their own workplace practices.

11. Employ valid and reliable research strategies.

Career-ready individuals employ research practices to plan and carry out investigations, create solutions, and keep abreast of the most current findings related to workplace environments and practices. They use a reliable research process to search for new information and confirm the validity of sources when considering the use and adoption of external information or practices.

12. Understand the environmental, social, and economic impacts of decisions.

Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact other people, organizations, the workplace, and the environment. They are aware of and utilize new technologies, understandings, procedures, and materials and adhere to regulations affecting the nature of their work. They are cognizant of impacts on the social condition, environment, workplace, and profitability of the organization.

Definitions and Graduation Requirements

Essential Skill Definitions and Timeline	Requirement for students first enrolled in Grade 9 in:
1. Read and comprehend a variety of text* • Demonstrate the ability to read and understand text.* • Summarize and critically analyze key points of text,* events, issues, phenomena or problems, distinguishing factual from non-factual and literal from inferential elements. • Interpret significant ideas and themes, including those conveyed through figurative language and use of symbols. • Follow instructions from informational or technical text* to perform a task, answer questions, and solve problems. **Text includes but is not limited to all forms of written material, communications, media, and other representations in words, numbers, and graphics and visual displays using traditional and technological formats*	2008-2009 and beyond
2. Write clearly and accurately • Adapt writing to different audiences, purposes, and contexts in a variety of formats and media, using appropriate technology. • Develop organized, well-reasoned, supported, and focused communications. • Write to explain, summarize, inform, and persuade, including business, professional, technical, and personal communications. • Use appropriate conventions to write clearly and coherently, including correct use of grammar, punctuation, capitalization, spelling, sentence construction, and formatting.	2009-2010 and beyond
3. Apply mathematics in a variety of settings • Interpret a situation and apply workable mathematical concepts and strategies, using appropriate technologies where applicable. • Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution. • Communicate and defend the verified process and solution, using pictures, symbols, models, narrative or other methods.	2010-2011 and beyond

Essential Skill Definitions and Timeline	Requirement for students first enrolled in Grade 9 in:
4. Listen actively and speak clearly and coherently • Listen actively to understand verbal and non-verbal communication. • Give and follow spoken instructions to perform a task, ask and answer questions, and solve problems. • Present or discuss ideas clearly, effectively, and coherently, using both verbal and nonverbal techniques. • Use language appropriate to particular audiences and contexts.	Student cohorts beyond 2013-2014 may also be accountable for the additional Essential Skills.
5. Think critically and analytically • Identify and explain the key elements of a complex event, text*, issue, problem or phenomenon. • Develop a method to explore the relationships between the key elements of a complex event, text*, issue, problem or phenomenon. • Gather, question and evaluate the quality of information from multiple primary and secondary sources. • Propose defensible conclusions that address multiple and diverse perspectives. • Evaluate the strength of conclusions, differentiating reasoning based on facts from reasoning based on opinions.	Additional Essential Skills graduation requirements must be approved by the State Board of Education by March 1st of the students' 8th grade year.
6. Use technology to learn, live, and work • Use creativity and innovation to generate ideas, products, or processes using current technology. • Use technology to participate in a broader community through networking, collaboration and learning. • Recognize and practice legal and responsible behavior in the use and access of information and technology. • Use technology as a tool to access, research, manage, integrate, and communicate ideas and information.	Student cohorts beyond 2013-2014 may also be accountable for the additional Essential Skills.
7. Demonstrate civic and community engagement • Apply knowledge of local, state, and U.S. history and government to explain current social and political issues. • Perform the civic and community responsibilities essential to living in a representative democracy.	

Essential Skill Definitions and Timeline	Requirement for students first enrolled in Grade 9 in:
8. Demonstrate global literacy • Demonstrate knowledge of diverse cultural, linguistic, and artistic expressions. • Apply a global perspective to analyze contemporary and historical issues.	Additional Essential Skills graduation requirements must be approved by the State Board of Education by March 1st of the students' 8th grade year.
9. Demonstrate personal management and teamwork skills • Participate cooperatively and productively in work teams to identify and solve problems. • Display initiative and demonstrate respect for other team members to complete tasks. • Plan, organize, and complete assigned tasks accurately and on time. • Exhibit work ethic and performance, including the ability to be responsible and dependable.	

Graduation Requirements by Cohort			
Students first enrolled in Grade 9 in	**1. Read and comprehend a variety of text**	**2. Write clearly and accurately**	**3. Apply mathematics in a variety of settings**
2008-2009	Required		
2009-2010	Required	Required	
2010-2011 and beyond	Required	Required	Required