THE WASHINGTON STATE BOARD OF EDUCATION

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

Title:	Discussion on Career Readiness
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 Board will continue discussing career readiness with the goal of furthering the work started with the Workforce Training and Education Coordinating Board (Workforce Board) at the January 2016 meeting. • What are the foundational elements of career readiness?
Possible Board Action:	☒ Review ☐ Adopt ☒ Approve ☐ Other
Materials Included in Packet:	☒ Memo ☐ Graphs / Graphics ☒ Third-Party Materials ☐ PowerPoint
Synopsis:	The Board will engage in small group discussion, followed by general Board discussion, to identify and articulate the foundational elements of career readiness. (The set-up of the discussion is described on the following page.) The Board will craft a letter to the Workforce Board asking that they discuss and respond to the foundational principles. The purpose of this work is to forge a statewide common understanding and formal definition of career readiness, as a first step to an aligned system that supports all students to career and college readiness. Included in this packet to guide the discussion are: • A draft "white paper" on career and college readiness • A draft template for a letter to the Workforce Board • A 2013 report "Knowledge, Skills, and Dispositions: The Innovation Lab Network State Framework for College, Career, and Citizenship Readiness, and Implications for State Policy," prepared for the Council of Chief State School Officers. Members who would like more information on other states' definitions may review the American Institutes for Research report on states' definitions of career and college readiness (not included in this packet but available at: http://www.ccrscenter.org/sites/default/files/CCRS%20Defintions%20Brief_REV_1.pdf)

Career Readiness Discussion

Time on the agenda is set aside for the board to consider:

- What are the foundational principles of career readiness, within the context of career and college readiness?
- Does the draft "white paper" included in your packet capture your thinking on career and college readiness?
- How should the Board identify the foundational principles of career readiness in its letter to the Workforce Board, to further the collaborative work on readiness?

Small group discussion (30 minutes):
Members will divide into 4 small groups to discuss principles of career readiness, within the context of career and college readiness. Each group will consider the questions above, and identify five foundational principles of career readiness.

Large group discussion (35 minutes):
Members will come back together for a large group discussion. The five foundational principles identified by each small group will be compared and discussed. The Board as a whole will chose the the principles that best represent the Board as a whole.

Staff will incorporate the principles identified by the Board in to the draft letter from the SBE to the Workforce Board. The Board will approve the letter during business items.

The mission of the Washington State Board of Education is to provide a high quality education system that prepares all students for college, career, and life. This language closely mirrors the commitments in Washington state law, which declares that the purpose of a high school diploma is "to declare that a student is ready for success in postsecondary education, gainful employment, and citizenship, and is equipped with the skills to be a lifelong learner."[1]

Washington state law provides further definition to these requirements, indicating that a basic education is "intended to provide students with the opportunity to become responsible and respectful global citizens, to contribute to their economic well-being and that of their families and communities, to explore and understand different perspectives, and to enjoy productive and satisfying lives." The law goes on to articulate four fundamental goals for all students in RCW 28A.150.210, including the ability to read, write, and communicate effectively; to know and apply concepts in core subject areas; to think analytically, logically, and creatively; and to understand the importance of work and finance, and understand how performance, effort, and decision-making impact future opportunities. The full statutory language is rich and expansive, and provides legal form and structure to what we might consider a high school graduate fully prepared for the challenges of the post-secondary landscape.

Here in Washington, and across the country, the term 'career and college readiness' (CCR) has become the short phrase to encapsulate these complex values. For many, the term essentially signals the broad array of knowledge and skills necessary to succeed in life. Increasingly, it has come to serve as a sort of short-hand mission statement for all public schools. In Washington State, the strategic plans of most of the major education governance organizations rely on this term, or versions with minor embellishments or modifications[2]. Many of the national education governance and advocacy organizations rely on the term, as well. It is not hyperbole to suggest that this three-word phrase has become a fundamental underpinning of most high-level education policy conversations in Washington, and the nation at large.

Defining the Term

"Career and college readiness" is a powerful term, but it also can be fragile. The term has been essential in facilitating an important national conversation about connections between the exit requirements of high school and the entry requirements to living wage career pathways. However, many use the term interchangeably with what they might think of as a generically "good education," without clear regards for what set of underlying policies and practices this phrase implies. Policymakers have often found the CCR phrase comfortable to say but, ultimately, difficult to define.

What is meant by getting all students "career and college ready"? This paper offers some basic principles of career and college readiness to help frame state definitions. The purpose is to help policymakers define the term, and understand whether they would indeed support the policies that

[1] RCW 28A.230.090

[2] Examples include reversing the order of 'career' and 'college' in the sequence to emphasize one over the other, adding a reference to citizenship, quality of life, or life-long learning.

their use of the term would imply. This policy framework helps inform conversations in Washington State, but could potentially be helpful elsewhere.

The following are basic tenets of a college and career readiness definition to guide policy implementation.

1. **A Career- and College-Ready Diploma is based on a standard; its purpose is to signify readiness for living wage career pathways.**

Perhaps above all, a career- and college ready-diploma is based on a standard. The standard is based on the knowledge and skills necessary for students to succeed in post-secondary education and access to living wage careers. This distinguishes it from a minimum proficiency diploma, or diploma based solely on participation, effort, and/or attendance. The distinction is critical in Washington State, where statute establishes the purpose of a diploma to prepare students for success in post-secondary education, gainful employment, and citizenship. Our state statute essentially renders illegal a minimum proficiency standard diploma.

The challenge presented by implementing a standards-based diploma is the natural tension with struggling students and increasing graduation rates. Graduation rates can often be immediately increased when the standards for a diploma are reduced. The fallacy of this approach is reflected in the loss of meaning in the diploma conferred. Without the standards, the diploma gradually loses currency in the marketplace, and fails to confer meaningful long-term benefits to the recipient.

2. **The Career- <u>and</u> College-Ready Diploma is not a Career- <u>or</u> College-Ready Diploma.**

The inclusion of "career" and "college" in this phrasing should not imply that either career-ready skills or college-ready content are optional for students. What is critical about the diploma is the uniform standard it establishes for all students. What should all students know and be able to do? When a state such as Washington establishes math content standards, it does not do so for only a subgroup of the student population; e.g. students who "like math" or plan to go to a four-year university. Rather, the diploma reflects basic fundamental standards for all students, so that everyone may be prepared for future success regardless of personal circumstance. The flexibility and the incorporation of "multiple pathways" for students comes into play in offering personalized curriculum and course offerings as varied paths to the same standard, rather than different pathways to different standards.

It is perhaps most helpful to think about the "career" and "college" ready aspects of the diploma as two stops along the way to the ultimate destination - living wage employment pathways – with one coming before the other. Indeed one can read "college ready" liberally to apply to all post-secondary educational pathways that prepare for living wage jobs, and one can understand "career ready" as the knowledge, skills, and attributes that help one access and succeed in living wage employment and civic engagement. Career-ready skills are what help you apply the 'college-ready' knowledge and skills effectively in career settings. ***Under this formula, it is possible to be college ready without being career ready, but it is impossible to be career ready without being college ready***. Career readiness works with content knowledge at its foundation.

3. Career-ready standards should apply to all students, and all courses.

There might be a tendency to see career readiness as an optional track to college readiness, and as such, to apply it to only to subset of students. On the contrary, career-ready standards should apply to all students, just as academic standards do.

For states that have dedicated funding programs or courses with the word "career" in them (e.g. Career and Technical Education - CTE), there may additionally be a tendency to think about the development of career-ready skills as something that general education classes do not need to concern themselves with. But correctly applied, career-ready standards apply to all students, in all classes. Students pursuing a purely academic or Advanced Placement track have every bit the need to develop career-ready skills as students applying to enter a welding apprenticeship program.

4. Career readiness for students is not "learning to work with your hands."

There is nothing inherent about technical or applied content that makes it more akin to comprehensive career-ready standards. At its core, career readiness prepares all students to succeed in a career, regardless of the content knowledge applied. Accordingly, career readiness standards should not be viewed as the exclusive responsibility of the Career and Technical Education (CTE) community.

The career-ready standards from the 21st Century Learning initiative help illustrate this. In addition to foundational content knowledge, the frameworks includes three additional components:

- Learning and Innovation skills (Creativity, Critical Thinking & Problem Solving, and Collaboration and Communication)
- Information, Media & Technology Skills (Media and Information Literacy)
- Life & Career Skills (Flexibility, Initiative, Social & Cross-Cultural Skills, Productivity, Accountability, and Leadership)

Additionally, Dr. David Conley[3] provides a helpful and more detailed framework for visualizing three separate components of a career and college-ready diploma: knowledge, skills, and dispositions. It is the skills and dispositions that may be seen as most closely aligned with career readiness. Conley defines the terms in the following ways:

Knowledge: Mastery of rigorous content and the facile application or transfer of what has been learned to complex and novel situations.

Examples: Common Core State Standards (reading, writing, speaking, listening, language and mathematics), Career & Technical Education, Other Content (Science, the Arts, civics, Economics, Geography, U.S. History, Health & Physical Education, World Languages, Information, Media & ICT Literacy), Global Competence, Applied Knowledge.

Skills: The capacities and strategies that enable students to learn and engage in higher order thinking, meaningful interaction with the world around them, and planning for the future.

[3] Council of the Chief State School Officers; Knowledge, Skills, and Dispositions: The Innovation Lab Network State Framework for College, Career, and Citizenship Readiness, and Implications for State Policy (2013)

Examples: Critical thinking, problem solving, working collaboratively, communicating effectively, metacognition & self-awareness, study skills & learning how to learn, time and goal management, creativity and innovation.

Dispositions: Socio-emotional skills or behaviors that associate with success in college, career and citizenship.

Examples: Agency (self-efficacy), initiative, resilience, adaptability, leadership, ethical behavior & civic responsibility (personal & social responsibility), social awareness & empathy (collaboration), self-control.

Note that the skills and dispositions included in this framework are not especially technical in nature, and in most every case would apply equally to a student in an Advanced Placement course just as much as a student participating in a course at a Skills Center. All students need to learn the behaviors and problem-solving skills that help employees thrive in civic and professional opportunities.

5. Assessment scores are necessary and important, but not nearly sufficient, in a well-rounded definition of CCR.

In a well-intended effort to emphasize the importance of standardized assessments (particularly in an era marked by strong parent refusal movements), there may be an tendency to conflate a Level 3 passing score on a Common Core-based assessment with a student's career and college readiness. This pattern threatens a dangerously reductionist view of CCR in two ways. First, the skills and dispositions illustrated in Conley's model are not fully assessed by Washington's Smarter Balanced assessment, implying (perhaps unintentionally) that CCR is merely a function of demonstrated knowledge only. Second, these assessments focus exclusively on Mathematics and English Language Arts content, with emerging efforts to include science in Washington. Particularly in view of the 'citizenship' components of CCR in the Conley model, one should not discount the importance of other subject areas (government and social studies). This is particularly true in Washington, where statute has provided a clear roadmap of the necessary subject matter knowledge associated with a high quality diploma.

Math and English Language Arts are important but do not represent the breadth of content necessary to claim readiness for success in a variety of post-secondary education and training venues. It is both wise and practical to limit assessment to a few content areas but, on the other hand, what is assessed should not limit the operating definition of career and college readiness; this amounts to an education policy version of the "tail wagging the dog."

6. Career-ready standards are not limited to high school.

Career-ready standards are most frequently invoked with high school students, in preparing them for post-secondary pursuits. However, the skills and dispositions implicit in career readiness have their roots in the social skills that we reinforce with our youngest students, as early as kindergarten. Career readiness is, at minimum, a 12-year journey. Career readiness has a kinship with social-emotional learning standards. Indeed, states such as Illinois[4] and Iowa[5] articulate socio-emotional standards that have both elementary and secondary benchmarks. As an example, Illinois' state goal of developing self-

[4] http://www.isbe.net/ils/social_emotional/standards.htm
[5] https://iowacore.gov/iowa-core/grade/1/21st-century-skills/employability-skills/21.k-2.es.1

awareness and self-management skills to achieve school and life success has both an early elementary standard (demonstrate control of impulsive behavior), and a secondary standard (analyze how thoughts and emotions affect decision-making and responsible behavior).

7. **Career and college readiness includes important elements of civic responsibility & engagement (a "career" is comprised of more than activities tied to earning wages).**

States are increasingly emphasizing civic responsibility in their definition of career and college readiness. This was done in part to combat the natural inclination to define career readiness in ways that are relegated to wage-earning endeavors. In truth, one's career can and should be more broadly construed to include the manner and effectiveness with which one engages communities; including political, civic, or social communities. Washington state law emphasizes the goal of helping all students "become responsible and respectful global citizens," and establishes as one purpose of the high school diploma to "declare students… ready for success in postsecondary education, gainful employment, and **citizenship.**"[6] Reflecting these values, the credits required for a high school diploma require 3 credits of social studies, including a .5 credit in civics, aligned to the states Essential Academic Learning Requirements in social studies.[7] Accordingly, Washington's definition of career and college readiness must be inclusive of a knowledge of civics, but also instruction on the tools available to effectively engage in civic life.

Summary thoughts:

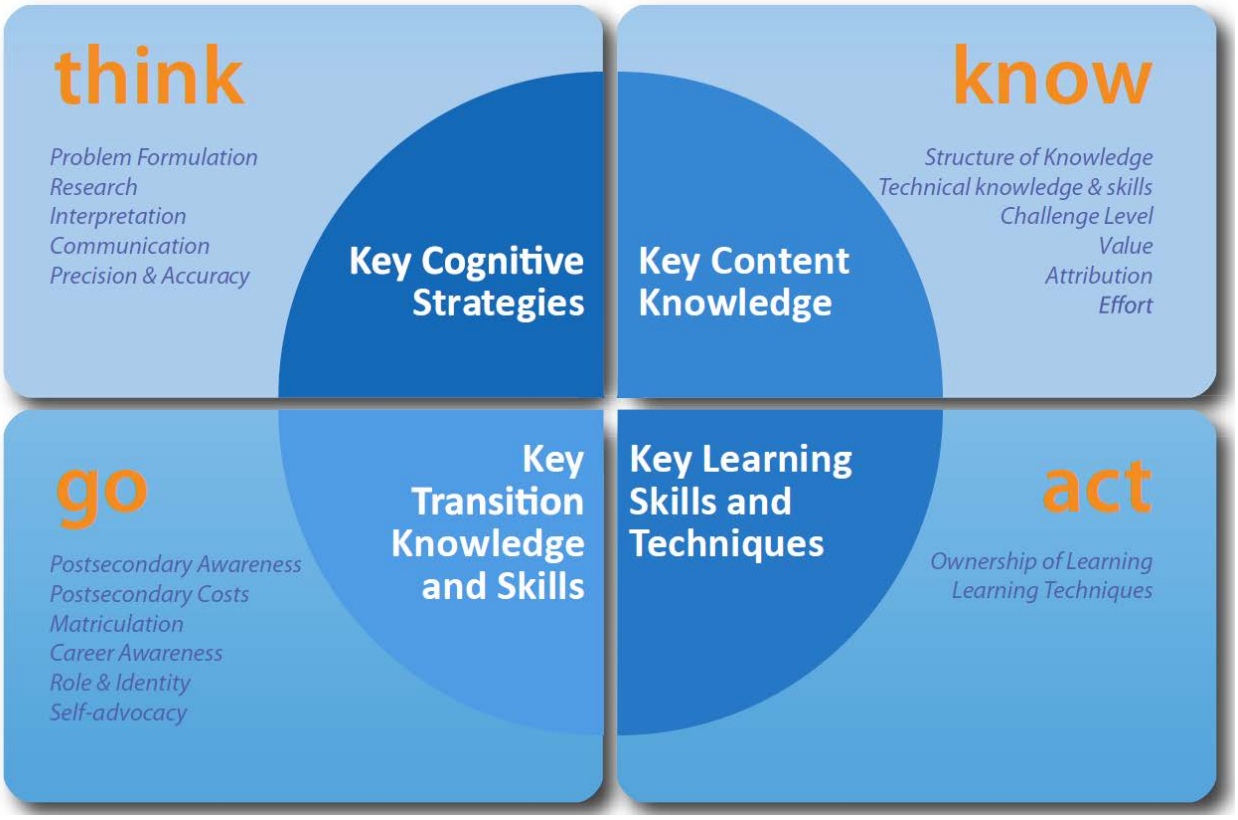
Like many states, through the incorporation of CCR content standards and aligned assessments, Washington has a solid foundation for emphasizing and measuring the "college-ready" knowledge necessary for success in postsecondary education and training. The skill and dispositional elements of career-readiness – perhaps because they are more difficult to measure or quantify – remain a relatively modest aspect of both how we talk about career and college-readiness in Washington State, but also, how we operationalize it.

While Washington State has certain elements in place - including several strong district-level efforts to implement Multi-Tiered Systems of Supports (MTSS) structures - it is perhaps worth considering a set of *state* standards that more fully reflects a value for career readiness beyond funding and implementation of Career/Technical Education (CTE) programs. Similar to the way that clear academic expectations have been established through the development of Essential Academic Learning Requirements (EALRs), policymakers may also consider building out a set of career-ready standards for students at all levels of the system. This may help deliver on the bold and multi-faceted promise of state law (RCW 28A.150.210), which envisions a basic education that not only confers basic core subject knowledge to students, but also challenges them to think analytically, logically, and creatively, and to understand the importance of work and finance, and understand how performance, effort, and decision-making impact future opportunities.

[6] Emphasis mine. Citation from RCW 28A.150.210

[7] Graduation requirements for the Class of 2019; found here

Appendix 1 – David Conley: A Complete Definition of Career & College Readiness, EPIC Consulting (2012)



THE WASHINGTON STATE BOARD OF EDUCATION

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

[Date]

Mr. Perry England, Chair
Workforce Training and Education Coordinating Board
PO Box 43105
Olympia, WA 98504-3105

Dear Chair England and Members of the Workforce Training and Education Coordinating Board:

Thank you for the thought-provoking and productive board-to-board discussion on career readiness at the January 2016 State Board of Education meeting. As a result of that discussion, the State Board of Education applied for and received a National Association of State Boards of Education Deeper Learning grant. The grant will support work in developing a statewide shared definition of career readiness, aligning policy to the shared definition, and exploring career readiness measures in the state accountability system.

The State Board of Education invites the Workforce Board to continue to engage in board-to-board exchange toward the goal of developing a shared understanding of what it means for all students in our state to be both career and college ready. The following draft foundational principles were discussed and approved by the State Board of Education at the May 2016 meeting. Our two boards began to develop these principles in January and we wish to work with the Workforce Board to further this effort. We see these principles as the foundational elements upon which to build a shared statewide definition of career readiness and we ask that the Workforce Board discuss and respond.

The Board will discuss and identify the principles at the May 2016 meeting, and insert them into this letter.

We look forward to continued productive cross-agency work that will benefit Washington's students, workforce, economy, and communities.

Sincerely,

Isabel Muñoz-Colón
Chair, State Board of Education

Cc: Washington Student Achievement Council
State Board of Community and Technical Colleges

Knowledge, Skills, and Dispositions:
The Innovation Lab Network State Framework for College, Career, and Citizenship Readiness, and Implications for State Policy

Council of Chief State School Officers

February 2013

CCSSO
Council of Chief State School Officers

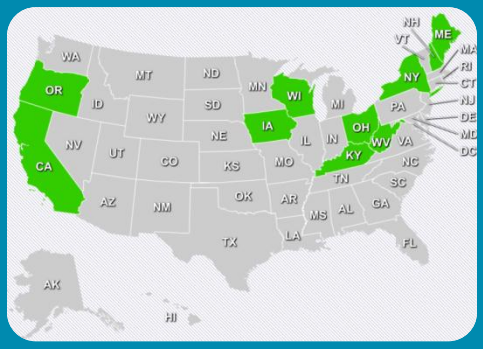
Introduction

In 2011, member states of the Innovation Lab Network (ILN or Network), facilitated by the Council of Chief State School Officers (CCSSO), agreed to work together under the shared belief that their states face a great opportunity to transform their education systems to new designs that prepare all students for postsecondary learning, work, and citizenship. Gathering as a Network, these states aimed to define the challenge, establish shared objectives, and support one another in identifying, testing, and sharing replicable, cost effective models that will compel system-wide changes in lab states, in other states, and in federal policy. First among their objectives was to create a shared framework for understanding the definitional elements of "college, career, and citizenship readiness" (CCCR) that will serve as a compass for state-to-local actions.

Stemming from the collective work of ILN states, this white paper communicates the shared framework and definitional elements of CCCR accepted by ILN chief state school officers in June 2012. Going forward, each ILN state has committed to adopting a definition of college and career readiness that is consistent with these elements, although precise language may be adapted; and to reorient its education system in pursuit of this goal.

The Innovation Lab Network

The Innovation Lab Network (ILN) is a group of states brought together by CCSSO taking action to identify, test and implement student-centered approaches to learning that will transform our public education system. With a constant focus on student outcomes, the goal of the ILN is to spur system-level change, scaling from locally-led innovation to wider implementation, both within and across states.



ILN state-to-local innovations are grounded in six "critical attributes" that serve as design principles for transformed systems:

- World-class knowledge and skills
- Performance-based learning
- Personalized learning
- Comprehensive systems of learning supports
- Anytime, everywhere opportunities
- Student agency

All states in the ILN – which currently includes **California**, **Iowa**, **Kentucky**, **Maine**, **New Hampshire**, **New York**, **Ohio, Oregon**, **West Virginia** and **Wisconsin** – are committed to working collaboratively with key players at the local, district and state levels and from outside stakeholder groups, including the business and higher education communities. As the ILN states pressure test new student-centered policies and practices, they are continuously sharing their success stories and supporting the work of others in the network.

Background

In 2011, amid an amplifying national conversation around "college and career readiness for all" as a new "north star" for education systems, ILN member states convened its own Task Force on College and Career Readiness. Comprised of ILN chief state school officers and their deputies, key stakeholder groups, and national thought leaders, the Task Force sought to guide state education systems toward a more clearly articulated definition of CCCR consistent with a broadened understanding of the student characteristics necessary for success in the 21st century. Reflecting on the Common Core State Standards, members asked what kinds of young people their parents and communities hoped would emerge from their transformative state education systems. Unanimously, they acknowledged that the Common Core Standards are foundational to preparing students for college and career – and as such are absolutely essential – but alone they are not sufficient. Along with mastery and application of essential content as typically prescribed and monitored in state standards, assessments, and accountability systems, it is necessary that students cultivate higher-order cognitive and meta-cognitive skills that allow them to engage in meaningful interaction with the world around them. Further, members agreed that these knowledge and skills are not achieved in a vacuum but require the development of underlying dispositions or behavioral capacities (such as self-regulation, persistence, adaptability) that enable lifelong pursuit of learning.

The vision put forth by ILN state education leaders and stakeholders was buoyed by increasing literature and analysis from the field. Researchers and national thought leaders provided guidance to the Task Force regarding the kinds of skills that most directly support college and career readiness and lifelong success. Shaping the intellectual basis for the definitional elements, David Conley's "Four Keys to College and Career Readiness," the Partnership for 21st Century Skills' "Framework for 21st Century Learning," and the Hewlett Foundation Education Program's definition of "deeper learning" have served as primary influences. Each of these guiding frameworks has helped the ILN expand their understanding of CCCR and are reflected in the definitional elements.

In addition to referencing influential intellectual frameworks, the Task Force has distilled and evolved its definitional elements by consulting several additional sources, including:

- International definitions and skills frameworks (e.g. the OECD Definition and Selection of Competencies project to examine expansion of the Programme for International Student Assessment (PISA) into additional domains, the Asia Society's analysis of knowledge, skills, and dispositions necessary for global competence, and public education goal statements and skills frameworks articulated by high-performing nations such as Finland, South Korea, Singapore, Canada, New Zealand, Australia, and the European Union, among others)

- Industry-specific skills frameworks (e.g. the Industry Competency Models facilitated by the U.S. Department of Labor, and the National Association of State Directors of Career Technical Education Consortium's "Common Career Technical Core")
- Literature reviews and meta-analyses of 21st century or deeper learning skills that correlate with achievement and success (e.g. recent work by the National Research Council, the Consortium on Chicago School Research, Mathematica, and a self-commissioned study completed by the Educational Policy Improvement Center identifying key skills and dispositions supported by research as strongly predictive of academic and lifelong success, Figure 1).
- College and career readiness frameworks and definitions from leading national experts (e.g. Achieve, ACT, Center on Education Policy, ConnectEd, Data Quality Campaign, National Council of Social Studies, National High School Center at the American Institutes of Research, Next Generation Science Standards, Southern Regional Education Board, and Ready By 21, among others).

By cross-walking each of these referenced skills frameworks, the Innovation Lab Network arrived at the set of three domains (knowledge, skills, and dispositions) and example elements described in this paper. They not only embody research consensus but also epitomize the vision of college and career ready student-citizens put forth by ILN state chiefs and their stakeholders.

Core Skill	Current Evidence of Relationships with Academic Outcomes						
	K–12 Success	College GPA	College Performance	College Credits Earned	College Retention	College Absenteeism	Career Success
Self-Efficacy	Strong	Moderate	Moderate	NA	Strong	NA	NA
Initiative	Strong	Strong	NA	Small	Moderate	NA	NA
Integrity	Strong	Moderate	Moderate	Small	Small	No/Negative	NA
Intellectual Curiosity	Strong	Moderate	Moderate	Small	Small	NA	NA
Adaptability	Strong	Moderate	Small	NA	NA	No/Negative	Moderate
Study Skils	Strong	Small	Moderate	Small	Small	No/Negative	NA
Time and Goal Management	Strong	Small	Small	Small	Small	NA	NA
Leadership	Moderate	Strong	Small	NA	NA	NA	NA
Collaboration	Strong	Moderate	Small	NA	NA	NA	NA
Communication	Strong	Moderate	NA	Small	No/Negative	No/Negative	NA
Problem Solving	Strong	Small	NA	NA	No/Negative	No/Negative	Small
Critical Thinking	Moderate	Strong	NA	NA	NA	NA	NA
Self–Awareness	Moderate	Small	NA	NA	NA	NA	Small
Self–Control	NA	Moderate	NA	Small	Small	No/Negative	NA
Applied Knowledge	NA	Small	NA	Small	No/Negative	No/Negative	NA
Social & Personal Responsibility	NA	Small	NA	NA	No/Negative	No/Negative	Small

Figure 1. Key skills and dispositions supported by research as strongly predictive of academic and lifelong success. Findings resulted from a literature review of current research on skills and dispositions completed by the Education Policy Improvement Center.

ILN Framework for College, Career, and Citizenship Readiness

The ILN's CCCR framework consists of underlying assumptions, definitional elements, and a sample definition for states to adapt to their specific contexts.

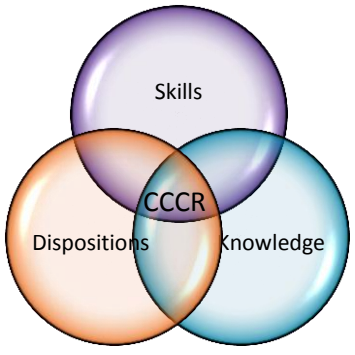
Underlying Assumptions

Several underlying assumptions were agreed upon and informed the ILN CCCR framework. These assumptions include: (For further detail, please see the Appendix.)

1. *Every student* should graduate college, career and citizenship ready.
2. Causing consistently high levels of learning among young people from widely varying backgrounds and with diverse needs will require *radical changes in current beliefs, policy, practice and structure.*
3. The *Common Core State Standards* are foundational to college and career readiness; they are absolutely essential, but not sufficient.
4. There is a significant overlap between the profiles of *college readiness* and *career readiness* that should be fostered in all students, although additional technical skills may be required for one versus the other.
5. *Citizenship readiness*, or preparing America's youth to be contributing members of the larger society, is a fundamental mission of public schools

Further, the Innovation Lab Network believes that all students must cultivate increasingly complex higher-order cognitive and meta-cognitive skills that will allow them to engage meaningfully with the world around them. Content knowledge is an important factor in student success, but is only part of the equation. Students must graduate possessing:

- ***Knowledge*** - mastery of rigorous content knowledge across multiple disciplines and the facile application or transfer of what has been learned,
- ***Skills*** - the strategies that students need to engage in higher-order thinking, meaningful interaction with the world around them, and future planning, and
- ***Dispositions*** – mindsets (sometimes referred to as behaviors, capacities, or habits of mind) that are closely associated with success in college and career.



The ILN believes that these domains of knowledge, skills, and dispositions (KSD)—deeper learning outcomes—are mutually reinforcing, and not contradictory**.** They have concrete meaning and can be expressly taught, learned, and measured. This will require multiple, robust measures that help us examine how they interact to advance learning.

The ILN also holds that the same set of knowledge, skills and dispositions is vital for student success in terms of citizenship readiness, including the ability to contribute and succeed in our increasingly diverse, democratic, global society.

Definitional Elements of CCCR

The following table represents sample definitional elements within the domains knowledge, skills and dispositions that most likely have the highest impact on college, career and citizenship readiness. They are not meant to be comprehensive or definitive, but provide examples for consideration.

Knowledge	Skills	Dispositions
Mastery of rigorous content and the facile application or transfer of what has been learned to complex and novel situations	*The capacities and strategies that enable students to learn and engage in higher order thinking, meaningful interaction planning for the future*	*Socio-emotional skills or behaviors that associate with success in college, career and citizenship*
• Common Core State Standards • Career & Technical Education • Other Content Areas & Essential Literacies • Global Competence • Applied Knowledge	• Critical thinking • Problem solving • Working collaboratively • Communicating effectively • Metacognition & self-awareness • Study skills & learning how to learn • Time/goal management • Creativity & innovation	• Agency (Self-efficacy) • Initiative • Resilience • Adaptability • Leadership • Ethical behavior & civic responsibility • Social awareness & empathy • Self-control

Sample Definition of CCCR

In addition to the above definitional elements, the ILN has suggested the following sample definition of CCCR which states may adapt according to local contexts:

> "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. Students must also be prepared to navigate the pathways and systems that will allow them to gain access to positive postsecondary opportunities.

Implications for State Policy

The ILN framework for College, Career, and Citizenship Readiness implies considerations for several domains of state policy and implementation, including how the state will establish CCCR as the goal of its education system;; how delivery systems will be redesigned to ensure each child's development of CCCR; how educators will be prepared and supported to develop students' knowledge, skills, and dispositions; how state and local systems will measure student progress toward CCCR; how systems will hold students, schools, districts, and educators accountable for fostering CCCR; how K-12 diplomas, credentials, or certificates articulate with postsecondary opportunities including higher education and the workforce; and how the system will pursue continuous improvement and innovation. Some key questions and considerations for state policymakers are suggested.

Establishing the Goal of the Education System

States adapting the ILN framework for CCCR must consider how they will create institutional commitment to college and career readiness (as the knowledge, skills, and dispositions that result in deeper learning) as the goal for their education systems. States are encouraged to consider:

- Taking formal action (via the state board, commissioner, governor or legislature) to adapt a definition of college and career readiness consistent with the framework
- Ensuring that their legislative body has an understanding of the definition and officially supports it as the goal of the education system for all students
- Reaching out to every local community (parents, higher education, business) to embrace the goal and definition, including involving them in the process of adapting the CCCR definition to local contexts
- Redesigning advising and support services to ensure that the goal of CCCR for every child is internalized throughout the system from early learning forward

Redesigning Delivery Systems

Ensuring that every child masters key knowledge, skills, and dispositions for lifelong learning and success necessitates a system that is able to track and support each student's individual learning progression. Therefore, states that accept the ILN framework for CCCR should consider how they design learning delivery systems to be personalized, competency-based, and to encourage student agency. Key considerations include:

- Setting conditions where students co-design learning, set goals and map their progress (e.g. creating individualized learning plans for all students or implementing online systems for students to plan and monitor their learning)

- Setting conditions where students progress toward mastery and credentials based on competency (e.g. passing policy to replace seat time requirements with student competencies or to set guidelines for competency-based diplomas)
- Setting conditions where students have multiple, anytime/anywhere, high-quality pathways to demonstrate progress and mastery (e.g. a statewide program awarding credit for extended learning opportunities; providing supports to students making choices that support individual college and career goals; adopting analytical tools that enhance the learning process and personalize learning at scale; adapting instructional materials policy to incentivize high-quality resources in digital formats that are modular, customizable, accessible 24x7, and available as OER)
- Supporting student demonstrations of progress through complex challenges (e.g. replacing seat time graduation requirements with deeper learning-aligned competency demonstrations; replacing exit exams with a high-quality program of capstone projects or performance-based demonstrations of mastery)

Preparing Educators

States pursuing systems where every child masters CCCR knowledge, skills, and dispositions must place considerable emphasis on preparing educators to thrive in personalized, competency-based systems. Therefore, states are encouraged to consider:

- Aligning educational professional development initiatives to support strategies for developing students' KSD and delivering personalized learning
- Aligning teacher preparation programs to support strategies for developing students' KSD and delivering personalized learning
- Providing educators with dynamic technology to support individualized instruction, and training to use the technology successfully
- Aligning educator accountability systems with CCCR outcomes

Assessing Progress

States wishing to pursue development of all students toward CCCR will need to establish comprehensive systems of assessment capable of measuring all the dimensions of knowledge, skills, and dispositions. It becomes no longer sufficient to measure students' attainment of knowledge alone. States are encouraged to consider:

- Assessing college and career readiness against the Common Core State Standards via a valid and reliable assessment
- Adopting a comprehensive system of multiple measures of student progress towards college and career readiness, balancing formative and summative assessments, some adjudicated locally

- Adopting performance based assessments that combine measures of knowledge, skills, and dispositions
- Mandating and funding assessment of student knowledge and skills in content areas beyond the Common Core (which may include performance assessments)
- Mandating and funding implementation of student skills and dispositions assessments (which may include performance assessments)

Holding Systems Accountable

States that adapt the CCCR framework must consider how they use CCCR data to hold systems accountable, modify practice, and continuously improve. States might consider:

- Tailoring data systems to track multiple measures of student knowledge, skills, and dispositions to inform system decisions
- Transitioning from point in time to point of readiness assessments for student accountability
- Adopting accountability designs that value continuous progress and advancement, for both low scoring and high scoring students
- Including measures of post-secondary placement and/or success in system accountability measures
- Mandating and conducting a review of accountability systems to ensure compatibility with new learning delivery models
- Conducting reviews to ensure that local systems provide college-ready curriculum to every student

Linking to Postsecondary Learning and Work

States can ensure college, career, and citizenship readiness for all students to the extent that they have achieved alignment with and secured endorsement from institutes of higher education and workforce systems. States must take active steps to ensure successful transitions from the K-12 to postsecondary learning and work. States are encouraged to consider:

- Working with post-secondary systems to tie early entry or placement in credit-bearing courses to CCCR-aligned assessments from the K12 system
- Ensuring that credits and certificates awarded to K12 students have value and transferability to advanced credentials beyond a single program or institution
- Merging higher education and P-12 data collection and reporting
- Convening a private sector working group to review and endorse career-ready curricula

- Enlisting business and industry assist with redesign of career and technical education programs and certificates to align with college and career readiness goals
- Working with business and industry to adapts their systems to accept and use CCCR assessments and performance-based credentials in selection and placement
- Enlisting business and industry personnel to serve in instructional roles, both in and out of school
- Offering all students the option to earn post-secondary credits and vocational certificates before graduation is available to every student
- Engaging higher education and workforce involvement in providing supports to all students and families in navigating college and career planning, admissions, and financing decisions
- Encouraging educators and employers to offer scholarships and aid to high performers

Supporting continuous improvement

Because transforming education systems to support CCCR for all students consistent with the ILN framework involves often radical changes in current beliefs, policies, practices and structures, states will require key enabling levers such as systems of support, shared learning, and continuous public engagement in the transformation agenda. States are encouraged to pursue:

- Establishing vertical and horizontal collaboration structures across and within system levels statewide (and with other states, as with the Innovation Lab Network)
- Creating a diffusion strategy for sharing and scaling successful models
- Implementing policies and programs in a manner aligned with an articulated strategy for research and evaluation for continuous improvement
- Providing flexibility or customized assistance to districts or schools to innovate
- Pursuing public engagement around vision and next steps (e.g. with students, families, community members, educators, social services, early childhood community, higher education, workforce, philanthropy, research community etc.)

APPENDIX

Underlying Assumptions

1) Every student should graduate college, career and citizenship ready.

Every student is entitled to an education that provides a foundation for success in lifelong learning, career and citizenship. Every graduate should be able to find a pathway toward both a career and a postsecondary degree or advanced credential, and a one–size-fits all approach will short-change those for whom pursuit of a traditional four-year degree is not the best option.

This will require that we open up more options and opportunities to help students set goals, ready themselves and transition from high school graduation to career – whether they go through a more traditional college route or into a career induction program. It will also require that systems build more opportunities for students to engage with higher education, business and community so that they can better understand the relationship between what they are being asked to learn and do in school, and the expectations that will be placed on them in postsecondary learning and work.

2) Causing consistently high levels of learning among young people from widely varying backgrounds and with diverse needs will require radical changes in current beliefs, policy, practice and structure.

The education system must meet the dual challenge of expanding high-quality choices and options as it creates efficiencies at scale. Well beyond improvements to current systems, success will require openness, incentivizing and testing of new models and a commitment to continuous innovation that honors the notion of multiple pathways to postsecondary success, emphasizes the importance of progress based on demonstrated competency, and is vigilant about maintaining high expectations for all students.

States have opportunity to catalyze these changes, from both the design and implementation perspectives, through new accountability systems and the development of comprehensive and balanced systems of assessment.

3) The Common Core Standards are foundational to college and career readiness; they are absolutely essential, but not sufficient.

CCSS require emphasis on mastery of essential content and higher-order skills and the application of knowledge so that all students are challenged to higher levels. Building on

this foundation, states must decide the extent to which other disciplines are represented in the profile of a college, career and citizenship ready individual, which cognitive and contextual strategies and skills students must possess, and what non-cognitive skills or behaviors are most important if students are to be successful.

4) There is a significant overlap between the profiles of college readiness and career readiness that should be fostered in all students, although additional technical skills may be required for one versus the other.

It is acknowledged that college readiness and career readiness may not be exactly the same constructs, and that some knowledge and skills – particularly discipline- or industry-specific technical skills – may be implicated in college or career readiness but not both. The ILN holds, however, that there remains significant overlap between the kinds of knowledge, skills, and dispositions that enable success in college or career. Furthermore, implications for systems transformation at the level of policies, practices, and structures are largely the same between preparing students for college or for career. Therefore, states may pursue developing students' college *and* career readiness so that all students have the full range of options available to them at the point of graduation.

5) Citizenship readiness, or preparing America's youth to be contributing members of the larger society, is a fundamental mission of public schools.

Schools are places where qualities of citizenship can and should be promoted with the support of the community. As students are preparing for college and career, schools can provide positive experiences that develop understandings about the responsibility to care for one another, to contribute to the community, to behave ethically, and to use the knowledge and capacities they are developing to do good. Civic learning or literacy is essential if students are to develop capacity to reflect on and respond to challenges in the world around them.

References

Atkins-Burnett, S, Fernandez, C, Jacobson, J, and Smither-Wulsin, C. (2012). *Landscape Analysis of Non-Cognitive Measures*. Mathematica Policy Research: Princeton, NJ.

Conley, D. T. (2005). *College Knowledge: What it Really Takes for Students to Succeed and What We Can do to Get Them Ready*. San Francisco, Jossey Bass.

Employment and Training Administration, U.S. Department of Labor. "Industry Competency Models." Website. Retrieved July 1, 2011 from http://www.careeronestop.org/CompetencyModel/

Farrington, MR, Allensworth, A, Nagaoka, J, et al. (2012). "Teaching Adolescents To Become Learners: The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review." University of Chicago Consortium on Chicago School Research.

Mansilla, VB, and Jackson, A. (2011). Educating for Global Competence: Preparing Our Youth to Engage the World. Council of Chief State School Officers and Asia Society. Website. Retrieved July 1, 2011 from http://asiasociety.org/files/book-globalcompetence.pdf

National Association of State Directors of Career Technical Education Consortium. (2012). "Common Career Technical Core." Website. Retrieved July 1, 2011 from https://careertechorg.presencehost.net/file_download/123d9910-585c-495a-b8e7-164d090c5cb1.pdf

National Research Council. (2012). "Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century." Website. Retrieved July 1, 2011 from www.nationalacademies.org/dbasse

Organization for Economic Co-Operation and Development (2005), "Definition and Selection of Competencies." Website. Retrieved July 1, 2011 from www.oecd.org/edu/statistics/deseco.

Partnership for 21st Century Skills. (2011). "Framework for 21st Century Learning." Website. Retrieved July 1, 2011 from http://www.p21.org/overview

William and Flora Hewlett Foundation. (2010). "Education Program Strategic Plan." Website. Retrieved July 1, 2011 from http://www.hewlett.org/uploads/documents/Education_Strategic_Plan_2010.pdf