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College and Career Readiness Begins With a Well-Rounded Education: Opportunities Under the Every Student Succeeds Act

Increasingly, states are prioritizing college and career readiness (CCR) for students as a key goal of their education systems. Moving beyond the No Child Left Behind (NCLB) Act's focus on mathematics and reading/English language arts (ELA) test scores, states are using the passage of the Every Student Succeeds Act of 2015 (ESSA) as an opportunity to set broader goals aligned with skills critical to multiple pathways to postsecondary success. ESSA positions a well-rounded education as a primary policy lever to support states' efforts to fulfill the promise and need for more students who are ready for both college and career by calling on districts and schools to integrate goals and initiatives related to college and career readiness into curricula, improved conditions for learning, and other educational experiences that may constitute a well-rounded education. In doing so, states may then leverage federal funding for a well-rounded education to drive CCR strategies.

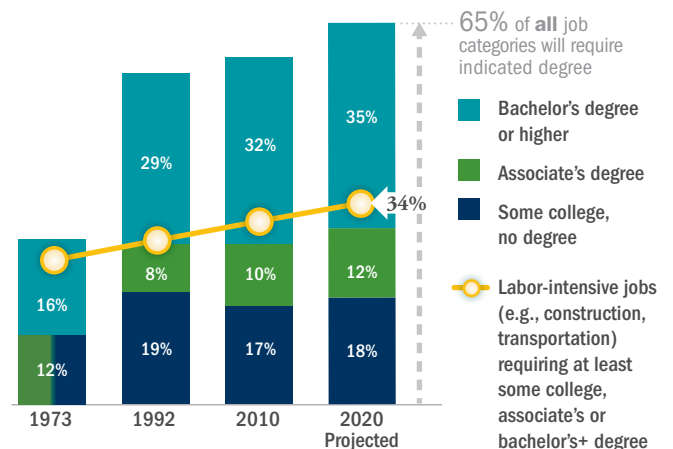
ESSA defines a well-rounded education flexibly as “courses, activities and programming in subjects *such as* English, reading or language arts, writing, science, technology, engineering, mathematics, foreign languages, civics and government, economics, arts, history, geography, computer science, music, career and technical education, health, physical education, *and any other subject*, as determined by the State or local educational agency, with the purpose of providing all students access to an enriched curriculum and educational experience” [italic added, Sec. 8002(52)]. This brief focuses on embedding CCR goals, policies, and strategies into such a definition.

Urgency for Embedding College and Career Readiness in a Well-Rounded Education

Although overall high school graduation rates are on the rise, reaching 83% for the 2014–15 school year (U.S. Department of Education, 2016a), mounting evidence indicates that schools are not ensuring that all students graduate ready for postsecondary success. Large graduation rate gaps persist between student subgroups.¹ Among college goers, attrition rates are alarming: only 60% of all students who began a 4-year undergraduate degree in 2008 graduated within 6 years. These rates were notably lower for African Americans (41%) and Hispanics (54%; U.S. Department of Education, 2016a). Further, of students enrolling in college courses, 20% of

Figure 1. Steadily Growing Demand for Postsecondary Education or Training

By 2020, the percentage of **all** jobs requiring at least some college will rise to 65%, including 34% of labor-intensive jobs traditionally associated with less education.



¹ Four-year cohort graduation rates for the 2014–15 school year by subgroup were as follows: students with disabilities, 65%; English learners, 65%; American Indian/Alaskan Native, 72%; African American, 75%; economically disadvantaged, 76%; Hispanic, 78%; White, 88%; and Asian/Pacific Islander, 90% (U.S. Department of Education, 2016a).

freshmen entering 4-year institutions and 52% entering 2-year institutions required remedial coursework. These remediation efforts cost \$3 billion per year across federal, state, and local levels (Bailey, 2009; Complete College America, 2012). With at least some postsecondary training or education being prerequisite for approximately two thirds of future jobs (Figure 1; Carnevale, Smith, & Strohl, 2010, 2013), these outcomes raise challenging questions regarding the meaningfulness of a high school diploma.

Concerns about graduates' postsecondary readiness—whether college bound or not—also are reflected in employers' ongoing reports of difficulties finding workers who possess cross-cutting skills (i.e., employability skills), such as critical thinking, collaboration, and digital literacy (Lippman, Ryberg, Carney, & Moore, 2015; Manpower Group, 2016), that are transferable across the job market as well as field-specific skills that are needed in the fastest growing job markets. For example, job growth in science, technology, engineering, and mathematics (STEM) occupation categories continues to outpace almost every other sector (26% projected growth from 2010 to 2020, second only to health care [Carnevale et al., 2013]), but employers report that jobs in the STEM-related fields of information technology, engineering, accounting, and finance are among those hardest to fill (Manpower Group, 2016).²

Under ESSA, states and districts have an opportunity to reverse these trends by reshaping their efforts to ensure that a diploma signifies being college and career ready. Figure 2 provides a framework for operationalizing state CCR definitions through three closely interrelated policy areas: a well-rounded education, multiple-measure accountability, and purposeful assessment (English, Rasmussen, Cushing, & Therriault, 2016). Of foremost importance is the need for states and districts to integrate the academic and nonacademic goals of their CCR definitions into enriched, accelerated curricula; improved conditions for learning; and other educational experiences that may constitute a well-rounded education under ESSA. Because a well-rounded education must be promoted for all students under ESSA, it is a primary lever for ensuring equal opportunity to attain college and career readiness.

Defining a Well-Rounded Education

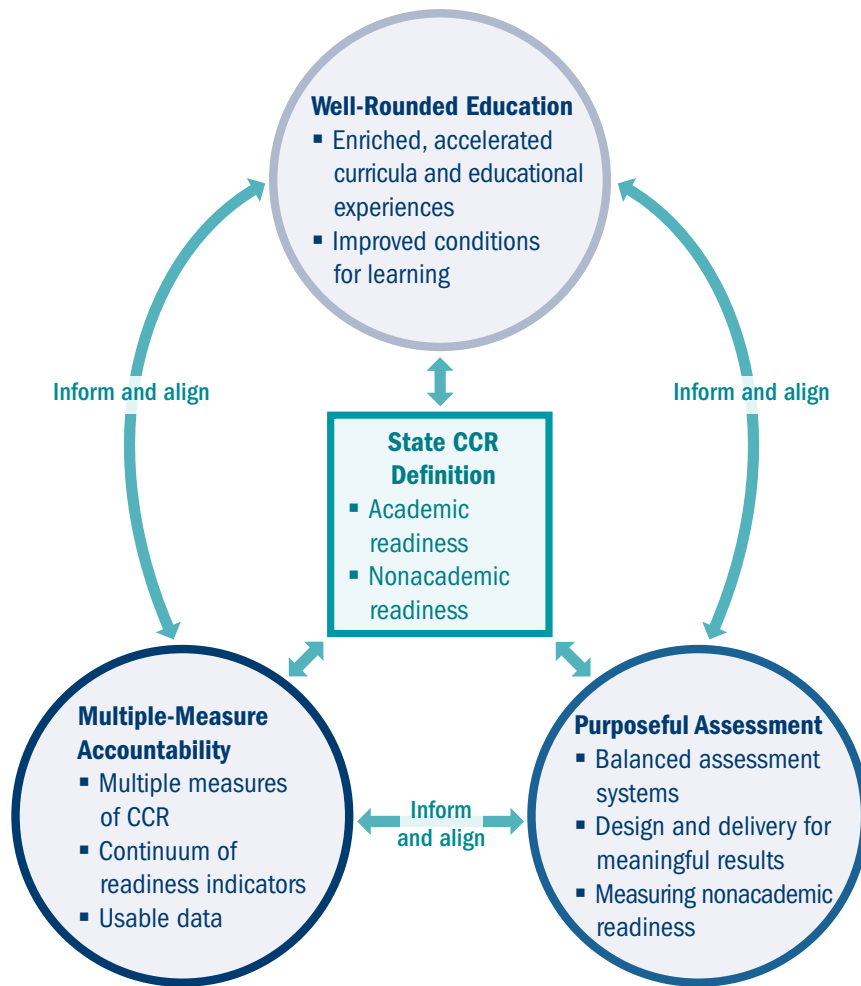
ESSA requires that states (Sec. 4101), districts [Sec. 1112(a)(1)], and schools [Sec. 1114 (b)-(d)] describe how they will support a well-rounded education in their Title I and Title IV plans through strategies addressing equitable access to related resources, educator capacity building, and/or improvement efforts in low-performing schools (see “Funding College and Career Readiness Through Well-Rounded Education Resources” on page 8). The law, however, does not *prescribe* the components of a well-rounded education. States and districts can work together, informed by examples within the ESSA statute and guidance, to develop their own definitions of a well-rounded education and should consider the following components for a definition that strongly promotes college and career readiness:

- **Alignment with systemwide CCR expectations**, as articulated through a state CCR definition as well as content standards, high school graduation requirements, remediation-free college entrance requirements, and industry certification requirements;
- **Employment-focused content** aligned with the needs of employers that prioritizes STEM and career and technical education (CTE) courses as well as employability skills transferable across all careers, such as critical thinking, collaboration, and digital literacy;

² Ninety-five percent of STEM jobs will require at least some postsecondary training by 2020 (Carnevale et al., 2013).

- **Rigorous academic course taking** built on a foundation of early learning that includes intense mathematics and reading/ELA course sequences in high school and access to advanced coursework, including Advanced Placement/International Baccalaureate (AP/IB) and dual/concurrent enrollment coursework; and
- **Work-based learning experiences** inside and outside the classroom that connect classroom learning, students’ interests, skills, goals, and career possibilities along a continuum of activities that includes career awareness, exploration, preparation, and training.

Figure 2. State Vision for College and Career Readiness



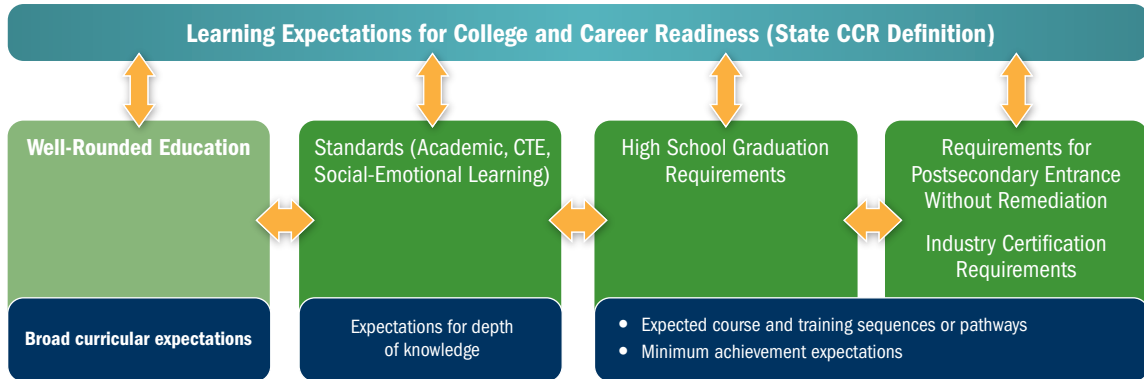
Alignment With Systemwide College and Career Readiness Expectations

Establishing a coherent **definition for CCR at the student level** is a foundational step that should precede defining a well-rounded education. At least 36 states have CCR definitions that describe the knowledge, skills, and experiences that students must have to be ready for college and career (Mishkind, 2014).

Figure 3 calls on states to align a well-rounded education with all systemwide academic and nonacademic expectations for learning. While a well-rounded education describes the broad curricular expectations for college and career readiness, **content standards**, including academic, CTE, and social-emotional standards, describe expectations for depth of knowledge. **High school graduation requirements, requirements for entrance to**

postsecondary education without remediation, and **industry certification requirements** all interact to describe expected course and training sequences or pathways as well as minimum achievement expectations for CCR. All these policies should ultimately support a state’s CCR definition. ESSA provides an opportunity for states and districts to align expectations across each element in Figure 3.

Figure 3. Alignment of Learning Expectations to Support State College and Career Readiness Definition



Employment-Focused Content

A robust definition of a well-rounded education can support states’ efforts to operationalize learning expectations that go beyond the past focus on ELA and mathematics proficiency to address the needs of employers by including the attainment of employability skills and CTE and STEM mastery.

Research and employer reports have clearly established those **employability skills** that are valued in postsecondary education and transferable across jobs (Carnevale et al., 2013; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Lippman et al., 2015; National Association of Colleges and Employers, 2016). The Office of Career, Technical, and Adult Education’s employability skills framework groups such skills into *effective relationships*, which includes social-emotional learning; *workplace skills*, such as technology use, information use, and systems thinking; and *applied knowledge* (see Figure 4). In a recent national survey, employers shared that having both field- or content-specific knowledge as well as a broad range of these cross-cutting skills is important for students’ long-term career success: 93% of employers agreed that “a candidate’s demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major” (Hart Research Associates, 2013).

The ESSA statute is consistent with what employers are reporting: it identifies collaboration [Sec. 4012(3)(E)], relationship building [Sec. 4108(5)(C)(iv)], and peer interaction [Sec. 2103(b)(3)(I)(iv)] as important student competencies. Recent federal guidance also encourages the inclusion of intrapersonal and interpersonal skills as components of a well-rounded education (U.S. Department of Education, 2016b).

Figure 4. Employability Skills Framework
(Office of Career, Technical, and Adult Education, 2016)



Social-emotional health and preparedness also is contingent on adequate conditions for learning, including a positive school climate, parental engagement, and mental health supports. It is important, therefore, that policymakers consider how social-emotional learning curricula and conditions for learning work together to ensure social-emotional health while continuing to focus on the hard skills that the labor market demands (see Figure 5).

Figure 5. Employability Skills and Conditions for Student Learning

Employability skills include the personal qualities and interpersonal skills that drive effective relationships. Research has clearly established that improving conditions for learning promotes these social-emotional traits. In one of the most comprehensive literature reviews, Thapa, Cohen, Guffy, and Higgins-D’Allesandro (2013) connected school climate and other conditions for learning to a wide range of emotional and mental health outcomes related to employability skills, including healthy relationships and self-esteem. Federal guidance states that “a safe and healthy school that addresses the social and emotional well-being of their adults and students is also part of a well-rounded education” (U.S. Department of Education, 2016b). Title I states, districts, and schools are each required to include improvements to conditions for learning in their state plans. Some of the examples embedded in ESSA include the following:

- Integrated systems of family and student support*
- Reduction of aversive and exclusionary disciplinary processes*
- Bullying and harassment prevention*
- Ensuring the educational stability of children who are homeless and those in foster care*
- Schoolwide positive behavioral interventions and supports*
- Drug and violence prevention activities
- School-based mental health services
- Dropout counseling and prevention programs
- Abuse awareness and prevention programs

*Required supports for Title I state, district, or school-level plans.

Technical and other field-specific skills resulting from **CTE coursework and certifications** are one such area of high demand, yet employers continue to cite a lack of technical certification as a leading reason for not filling jobs (Manpower, 2015). Rigorous studies have demonstrated the positive impact of CTE coursework participation on graduation rates and employment after high school (Castellano, Sundell, Overman, Richardson, & Stone III, 2014; Kemple & Snipes, 2000). It is encouraging then that ESSA promotes a prominent role for CTE in a well-rounded education through its requirement for states to align CTE and academic content standards and its supports for increasing student enrollment in CTE coursework and integrating CTE content into academic instructional practices (Secs. 1003A, 1112, 1114, 1115, 1401, 4101, and 4201). Targeted funding also is available for educator training to support successful student transitions to postsecondary education and jobs aligned with regional workforce needs [Sec. 2101(c)(4)(B)(xviii)].³ By including CTE pathways that culminate in job placement in a well-rounded education, states will strengthen the viability of postsecondary success for the large percentage of graduates whose goals do not require college attendance.⁴

Employers also report a persistent unmet demand for graduates prepared for STEM-related fields (Manpower, 2014, 2015, 2016), yet **STEM course offerings** are lacking in many of the nation’s schools: only 75% of high schools with the highest populations of African-American and Hispanic students offer Algebra II courses, and only 63% of all high schools offer physics courses (Achieve, 2014). Increasing access to “STEM + computer science” coursework is stressed throughout ESSA [Secs. 2103, 2245, and 4205]. Highlighting its importance to many career and technical pathways, the statute also promotes the integration of STEM content with other subjects and programming, including field-based learning opportunities [(Sec. 4107(a)(3)]. Federal guidance

³ CTE also might be an important area for alignment between a well-rounded education and accountability systems. Twenty-six states currently include measures of participation or performance in CTE or experiential learning among their criteria for school accountability determinations (Martin, Sagrad, & Batel, 2016).

⁴ For comprehensive guidance on developing career pathways for students, see [Designing a Career Pathways System: A Framework for State Educational Agencies](#) (College and Career Readiness and Success Center, 2016).

suggests additional ways to incorporate STEM in a well-rounded education beyond the traditional school day, including mathematics competitions, specialty schools, and extended learning time (U.S. Department of Education, 2016b). States also might leverage ESSA to align assessment efforts with STEM initiatives. The statute, for example, encourages the use of federal funds to integrate engineering content into statewide science assessments [Sec. 1201(a)(2)(G)].

Rigorous Academic Course Taking

A well-rounded education that prepares students for college and career should include the opportunity for all students to participate in rigorous course sequences, including comprehensive mathematics and reading/ELA sequences in high school as well as advanced coursework, including AP/IB and dual/concurrent enrollment coursework. Such opportunities are culminating academic milestones along a developmentally appropriate educational path that should begin with early learning.

For example, we know that many students from disadvantaged subgroups are already academically behind their peers when they start kindergarten (García, 2015). These slow starts reverberate far into the future: children who participate in **early learning** are more likely to succeed in elementary school, graduate from high school, and attend 4-year colleges (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Magnuson, Meyers, Rhum, & Waldfogel, 2004; Schweinhart et al., 2005). Early literacy scaffolds all other skills: children who cannot read at grade level by the fourth grade are likely to become our least-skilled, lowest-income citizens (Annie E. Casey Foundation, 2010).⁵ Yet many children are denied prekindergarten opportunities because of a lack of programs, prohibitive costs, or waiting lists (New America Foundation, 2017). Federal guidance states the collective responsibility simply: “...a well-rounded education begins with early learning...” (U.S. Department of Education, 2016b).

A strong early learning foundation is the first step of many toward ensuring that students are ultimately prepared to take a **rigorous sequence of core courses** in high school, such as 4 years of ELA/reading and 3 years of mathematics.⁶ Such course-taking sequences are among the strongest predictors of success in college (Adelman, 1999, 2006). Timely completion of Algebra I is particularly related to college success and career earnings (Adelman, 1999, 2006; Finkelstein & Fong, 2008; Rose & Betts, 2004).

Despite the importance of meeting these foundational benchmarks for college and career readiness, just seven states and the District of Columbia require completion of a rigorous sequence of core academic courses to receive a regular diploma. Fourteen other states default students to a CCR course sequence for graduation but allow them to opt out of it. Thirteen additional states offer CCR course sequences that students must opt into. Sixteen states fail to offer a sequence of courses that ensure mastery of mathematics and ELA/reading at the CCR level upon graduation (Achieve, 2016).

Just 7 states and the District of Columbia require completion of a rigorous sequence of core coursework in high school for college and career readiness—3 years of mathematics and 4 years of reading/ELA courses—to receive a regular diploma (Achieve, 2016).

⁵ For additional strategies for embedding early learning into a well-rounded education, see [Non-Regulatory Guidance: Early Learning in the Every Student Succeeds Act: Expanding Opportunities to Support Our Youngest Learners](#) (U.S. Department of Education, 2017).

⁶ This particular sequence of courses has been identified as supporting mastery of those mathematics and reading/ELA standards that enable a student to enter college without remedial course taking (Achieve, 2016).

AP/IB coursework and tests provide students with opportunities to acclimate to college-level expectations. Various researchers have concluded that scoring a 3 or more on AP exams and a 4 or more on IB exams is a meaningful predictor of persistence in college (Nagaoka, Roderick, & Coca, 2009; Wiley, Wyatt, & Camara, 2010). ESSA prominently positions such accelerated coursework as a part of a well-rounded education and provides many funding opportunities to develop, implement, and promote participation in AP/IB coursework to ensure access for all students (Secs. 1003A, 1114, 2101, and 4101; U.S. Department of Education, 2016b).

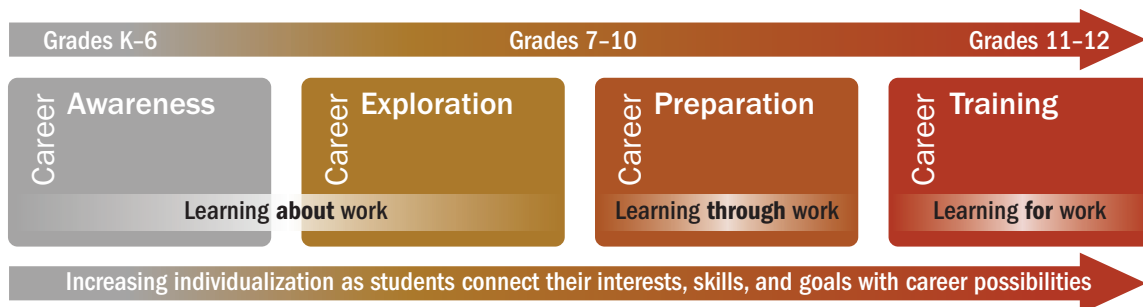
Early college and **dual/concurrent enrollment coursework** are additional accelerated learning options under a well-rounded education. “Gold standard” research, as identified by the U.S. Department of Education, shows that students taking college-level courses in high school are more likely to be successful in their postsecondary pursuits. In one study, early college students across all subgroups were more likely to enroll in and complete college (Berger, Turk-Bicakci, Garet, Knudson, & Hoshen, 2014). Dual/concurrent enrollment coursework in high school has been shown to have a positive impact on 4-year college enrollment and persistence (D’Amico, Morgan, Robertson, & Rivers, 2010; Hughes, Karp, Bunting, & Friedel, 2005; Wyatt, Patterson, & Di Giacimo, 2015).

Many states also have recognized the importance of aligning accountability with rigorous student course taking. Twenty-two states include AP/IB or dual/concurrent enrollment coursework participation or performance in annual school performance determinations. California measures the number of students taking a course sequence aligned with the entrance requirements to its public universities. Early literacy is a prominent factor in Ohio’s accountability system, and several states include algebra participation or proficiency by Grade 9 in their systems (Martin et al., 2016).

Continuum of Work-Based Learning Experiences

Employers value students’ participation in work-based learning experiences outside the classroom, where rising graduates have the opportunity to practice, develop, and demonstrate workplace competencies (Hart Research Associates, 2013; National Association of Colleges and Employers, 2016). Programs that culminate in internship and apprenticeship experiences can create a pool of skilled and motivated employees whom employers may hire with greater confidence and train at lower costs (National Academy Foundation, 2016). For students, work-based learning experiences, both inside and outside the school, that promote career awareness, exploration, preparation, and training help them make connections between classroom learning, their own interests and strengths, and career possibilities. These activities begin as early as preschool and can be considered along a continuum of learning experiences that become increasingly individualized as students clarify their goals approaching graduation (see Figure 6, adapted from Linked Learning Alliance, 2012). By including these learning opportunities in a well-rounded education, states, districts, and schools can directly align curricula with viable career paths.⁷

Figure 6. Continuum of Work-Based Learning Experiences



⁷ Two states, Georgia and Connecticut, currently include participation in work-based learning experiences outside the classroom in their annual accountability determinations (Council of Chief State School Officers and Education Strategy Group, 2017).

Career awareness begins in the earlier grades and helps young students begin to understand the role of work in their communities and their own career options. Field trips to places of work, visits by parents to classrooms to discuss their work, library-based activities, and project-based learning in the classroom can all promote career awareness in students.

Through **career exploration**, students begin to learn about the particular skills associated with career paths and how they connect to their own strengths, through activities such as job shadowing and career fairs. As described in Title IV guidance, “A well-rounded education starts with...opportunities that make time for *exploration* and.... helps students make important *connections* among their studies, their curiosities, their passions, and the skills they need to become critical thinkers and productive members of society” (italic added; U.S. Department of Education, 2016b). Career aptitude and interest assessments also can help make these connections. ESSA explicitly supports the inclusion of exploration activities, based on labor market needs, including career counseling, as part of a well-rounded education [Secs. 1112(b)(10)(B) and 4107(a)(3)(A)].

As early as Grade 9, there may be increased focus on **career preparation** through mastering particular career readiness skills. Students may participate in part-time jobs, service learning, project collaborations with businesses, or other applied school activities that support employability skills, with some emphasis on collaboration and problem solving in the workplace. ESSA encourages districts to include, in their applications for Title I funds, supports for incorporating experiential learning opportunities that align with in-demand occupations into academic and CTE programming [Sec. 1112(b)(12)(A)]. Entities also are encouraged to use Title II funds [Sec. 2103(b)(3)(O)] and Title IV funds [Sec. 4203(a)(14)(A)(iii)] to support career preparation activities.

The continuum culminates with **career training** opportunities, such as internships and apprenticeships, typically between Grades 11 and 12. These experiences directly prepare students for employment by prioritizing the development of specific, applied workplace skills through sustained collaboration with industry professionals in activities that have consequences outside the classroom (Linked Learning Alliance, 2012). Federal guidance explicitly notes that well-rounded education resources may support such internships and other field-based experiences (U.S. Department of Education, 2016b).

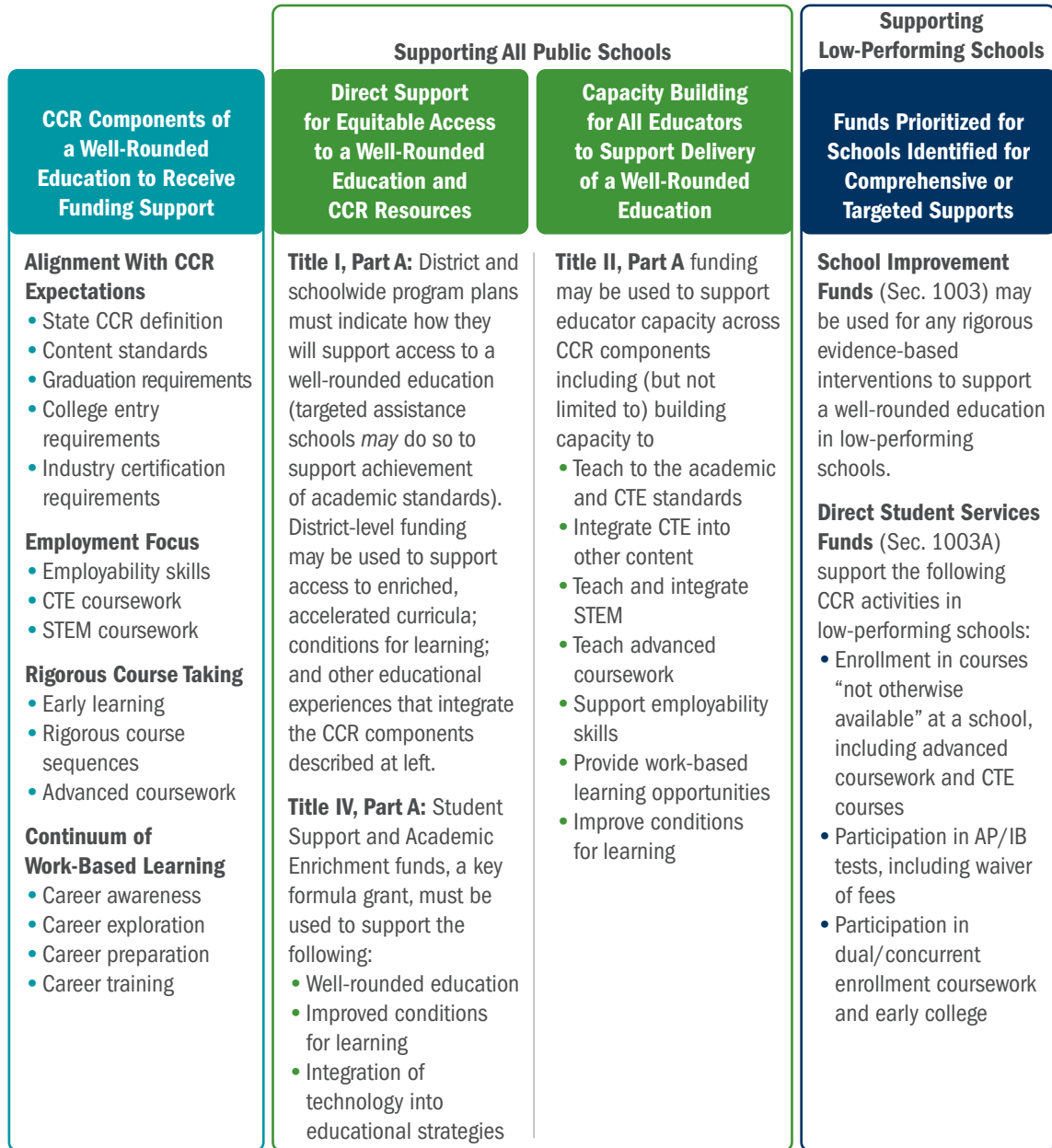
Funding College and Career Readiness Through Well-Rounded Education Resources

ESSA requires that state, district, and school plans for Title I or Title IV funding describe how they will support a well-rounded education. When states embed CCR principles into their plans in the various ways discussed previously, states may leverage ESSA funding for a well-rounded education to support their overall CCR strategies.

Two factors influence how states might use funds that promote a well-rounded education to support college and career readiness (see Figure 7):

- Whether a program's funds may be used to directly support equitable access to related resources or must be used to build the capacity of educators
- Whether funds supporting equitable resource access may be used across all public schools or must target low-performing schools

Figure 7. Funding Levers to Support College and Career Readiness Through a Well-rounded Education



Supporting All Public Schools

Basic Program Funding for Districts (Title I, Part A). Given the continued disparities between the performance of students who are the most disadvantaged and key CCR benchmarks such as high school graduation rate, Title I, Part A funds should be a cornerstone of efforts to ensure equitable access to a well-rounded education and CCR resources. ESSA requires that districts and schools with Title I schoolwide programs describe in their plans how they will support a well-rounded education and encourages them to support equitable access to related resources, such as reviewing and addressing the availability of AP/IB and dual/concurrent enrollment coursework for all students.

Student Support and Academic Enrichment Grants (Title IV, Part A). In contrast to NCLB’s focus on safe and drug-free schools, Title IV under ESSA (i.e., “21st Century Schools”) has been significantly revised to fund a much broader range of supports. Student Support and Academic Enrichment Grants under Title IV are an important formula grant that state and district awardees must use to support three key areas: a well-rounded education, improved conditions for learning, and the integration of technology into learning strategies. Entities may use these funds to support access to the CCR-related components of a well-rounded education as described previously.

Supporting Effective Instruction (Title II, Part A). With a \$2.25 billion proposed budget for the 2017–18 school year, Title II funds, designated specifically for recruiting, training, and otherwise supporting educators, can help ensure that a well-rounded education that integrates college and career readiness is delivered effectively in the classroom. Unlike other programs’ funds, which may be used for a broad range of activities, Title II funds must target educator capacity building and recruitment. Explicit uses include supporting the delivery of accelerated coursework, CTE, and work-based experiences; helping all students develop the “skills essential for learning readiness and academic success” [Sec. 2103(b)(3)(E)(iv)], which may include employability skills; and supporting conditions for learning, such as understanding when to refer students to mental health services.

Supporting Low-Performing Schools

School Improvement Funds (Sec. 1003). ESSA provides states and districts with the flexibility to determine interventions in comprehensive and targeted support schools.⁸ These funds can be used to drive any rigorous evidence-based interventions meeting ESSA requirements.⁹ States therefore have the opportunity to use these funds to support the implementation of research-based CCR strategies that support a well-rounded education, including improved conditions for learning. States might use the [What Works Clearinghouse](#) to help identify appropriate interventions to support college and career readiness and also may refer to various research integrated into the previous discussion.

Direct Student Services (Sec. 1003A). Up to 3% of a state’s Title I allocation may be designated to support Direct Student Services that must prioritize comprehensive and targeted support schools. ESSA allows these funds to be used for tutoring and public school choice, as under NCLB, but also encourages their use to expand access to courses not otherwise available at a student’s school, including advanced coursework and CTE coursework. These funds also may be used for reimbursement of AP/IB test fees and related transportation costs.

⁸ Comprehensive support schools are those among the lowest 5% of Title I schools across all required accountability indicators, those that fail to graduate one third or more of their students, and Title I schools with chronically underperforming subgroups. Targeted support schools are those with subgroups that would perform, on their own, as poorly as the lowest 5% of schools and schools with consistently underperforming subgroups based on all required indicators.

⁹ At least one intervention in each comprehensive support and targeted support school (and all interventions funded by Sec. 1003) must have demonstrated a statistically significant positive impact on student outcomes based on a well-designed and well-implemented experimental (i.e., strong evidence), quasi-experimental (i.e., moderate evidence) or correlational (i.e., promising evidence) study.

Conclusion

The well-rounded education provisions of ESSA constitute a key leverage point for moving states' visions for college and career readiness forward. States and districts should collaborate to formulate and operationalize a definition of a well-rounded education that incorporates (1) alignment with the state's CCR definition and other systemwide student learning expectations; (2) content focused on supporting future employment for all students; (3) rigorous course taking and advanced coursework, which are strong foundations for college *and* career success; and (4) work-based learning experiences inside and outside the classroom that connect classroom learning, student traits, and career possibilities. Further, accountability systems and assessment systems should be informed by and aligned with the CCR components of a well-rounded education. By thoughtfully aligning such a framework, states can effectively leverage funding for a well-rounded education to drive CCR strategies.

This brief is the second in a series of CCRS Center briefs discussing how states might leverage ESSA to promote college and career readiness. The introductory brief [Leveraging the Every Student Succeeds Act to Support State Visions for College and Career Readiness](#) is available [here](#).

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