

Recognizing College and Career Readiness in the California School Accountability System

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About this Brief

Changes in education funding and accountability policies in California provide new opportunities to end the false dichotomy of preparation for college *or* career and support students in graduating from school well-equipped with 21st century skills. This research describes practical and measurable indicators of career as well as college readiness that the state and districts can look to as they develop accountability plans. The research paper on which this brief is based can be found at <https://edpolicy.stanford.edu/publications/pubs/1279>.

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California's major transformation of its education system has begun with a new Local Control Funding Formula (LCFF), which allocates money more equitably to school districts and changes the way the state will evaluate school and district performance. A new multiple measures system of indicators will be the basis for evaluating the results of investments and guiding a process of continuous improvement.

Recognizing that these changes provide opportunities to encourage important education goals, this policy brief proposes a set of strategies for recognizing and supporting career as well as college readiness within the Local Control and Accountability Plans (LCAPs) that will shape accountability reporting for schools and districts. In addition, the brief proposes ways that student accomplishments, illustrating college and career readiness, can be included in graduation standards and conveyed to postsecondary audiences.

It is important that, as we define, develop, and evaluate the abilities that prepare students for college and careers, we include the deeper learning skills that society increasingly demands: the abilities to collaborate successfully, communicate clearly in many forms, think critically and creatively, and, especially, to learn and apply new knowledge to new problems effectively. Learning dispositions and skills are, in fact, the top quality that today's employers seek and must be reflected in new measures that accountability systems rely upon.

Thoughtful choices of indicators for the new accountability system could end the false dichotomy of preparation for college *or* career. Unless they fail to enter the labor market, all students will ultimately enter a career regardless of whether the timing of their careers begins after postsecondary education or directly after graduation from high school. Similarly, many students will enter college later in life, after they have spent some time in the workforce. Therefore, it is imperative that career readiness, operationalized as technical and 21st century skills and dispositions, along with college readiness, be supported and developed in all students. Developing strong, supportive pathways that incorporate both college- and career-ready skills is our best bet for ensuring students will find their way to a productive future.

Recommendations for LCAP Indicators

After an extensive review of existing indicators and measures available within California and nationally, we propose that the LCAP incorporate three types of performance indicators aligned with career and college readiness:

1. The proportion of students who complete comprehensive courses of study in career technical education (CTE), such as those that meet Linked Learning criteria;
2. The proportion of students who have satisfactorily completed work-based learning experiences that meet specific criteria; and
3. The proportion of students who have met a defined level of achievement on assessments of technical knowledge and skills, including well-defined graduation portfolios documenting specific abilities, as well as industry-approved certificates, licenses, and badges that are portable and valued by the student, postsecondary institutions, and businesses and industry.

Recommendation #1: Completing a high-quality CTE pathway is commonly recommended as an indicator of career readiness. With respect to the LCAP, this could be recorded as the percentage of students who successfully complete an approved CTE pathway, as an analog to the percentage who have completed the a-g curriculum as a college-ready metric.

Where they meet quality criteria for the integration of strong career and academic opportunities, such pathways may include those from Regional Occupational Centers and Programs (ROCPs), California Partnership Academies (CPAs), Linked Learning pathways, and the National Academy Foundation (NAF) career academies.

To support a meaningful indicator, standards will be needed to distinguish eligible pathways.

A first step is to assure alignment of courses to the state's CTE Model Curriculum Standards, industry standards and the Common Core State Standards, and their integration with academic content, as required in approval processes by the California Department of Education.

Integrating CTE pathways with academic curriculum is essential since there is not typically enough room in a student's course schedule to complete both a high-quality CTE sequence and the a-g curriculum unless they are fully integrated. Although CTE programs such as ROCPs have systematically integrated core academics into their CTE courses, which have increased the number of courses that meet the admission requirements of the University of California and the California State University, the vast majority (79%) of a-g approved CTE courses are placed under the requirements for visual and performing arts (f) and electives (g). Therefore, more work is needed to increase the number of CTE courses that satisfy core subject requirements (a-d).

Beyond integrating the academic core with career skills, a certification process can ensure that rigorous courses of study are developed and more comprehensive standards for program quality are applied. Two well-defined certification processes for CTE programs are the Linked Learning Pathway Certification and the NAF Certification. Both certification processes offer a close examination of whether a program — as implemented — is aligned to standards, offers high quality courses, supports students well, and focuses on improvement. Such processes are not currently applied to ROCP or CPA programs, but could be to leverage quality.

Finally, completion of an approved career-ready pathway could be recorded on a student's diploma and/or as part of the student's profile (described further, below).

Recommendation #2: The LCAP could include an indicator of the proportion of

students who have completed an approved work-based learning experience that meets the standards of high-quality experiences.

Work-based learning experiences (such as service learning, internships, school-based enterprises, and pre-apprenticeships) may be viewed as both an essential component of the curriculum and the ultimate authentic assessment in CTE, because they provide students with the opportunity to contextualize their learning and apply their job-related academic, technical, and employability skills in real-world settings.

Work-based learning experiences also render more meaningful much of the otherwise abstract content in the secondary education curriculum, making it clearer how school learning is relevant to out-of-school concerns. Such opportunities should be available to and encouraged for *all* secondary students, whatever their immediate postsecondary plans may be.

Therefore, a useful potential indicator in the accountability system could be the percentage of students who successfully complete a sufficiently intense service learning or work-based learning experience that meets standards that are associated with the nature of the placement, the structuring of the learning experience, and the outcomes for students' knowledge, skills, and dispositions. Such standards would likely include:

1. In-depth engagement in a workplace role that offers specific learning opportunities, preferably in communities of practice that provide broader perspectives;
2. Development of learning plans in alignment with academic and technical standards and in connection with academic and technical instruction;
3. Ongoing guided communication and supervision;

4. Means for student reflection on the learning process and documentation of related products or artifacts;
5. Assessment of learning and performance, tied to academic and technical standards.

In California, AB2211 was signed into law in 2010, which authorized school districts to establish and provide quality work-based learning programs for high school students. However, at present the completion of programs that meet the quality criteria are not part of the school reporting or accountability system. Thus far, one state — South Carolina — publicly reports the percentage of students who participate in approved work-based learning experiences on its school report cards.

Like the California Seal of Biliteracy, schools can document the students who have participated in work-based learning experiences that have met these standards, reporting the percentage of such students as an aggregate measure while also enabling students to report their experience in the context of their individual student profiles.

Recommendation #3: Just as the LCAP will include measures of college readiness through such assessments as Advanced Placement tests and dual credit options, the new accountability system should include measures of student readiness based on demonstrations of accomplishment on assessments of technical skills and workplace learning.

In the CTE field, a range of assessments is used to assess student learning and career readiness, from skill-based technical assessments to performance-based assessments involving project-based learning, portfolio assessments, and work-based learning experiences.

Skill-based assessments measure the extent to which students have mastered occupation-spe-

cific skills that are needed to pursue a specific career pathway, such as accounting or web design. A recent report by the Center on Education Policy¹ showed that 38 states employed technical skills assessments in order to evaluate students' career readiness. California was not one of those states. The ACT WorkKeys, NOCTI Job Ready and Pathway Assessments, the Assessment of Skills and Knowledge for Business, and Skill Connect Assessments are examples.

Performance-based assessments require students to demonstrate skills and apply knowledge to novel tasks. The Center on Education Policy report found that 10 states are using performance-based assessments to measure industry-based skills as well as college readiness. This type of assessment emulates the contextualized learning and hands-on experiences that are cornerstones of CTE. Performance-based assessments are commonly used in Linked Learning pathways and are teacher-developed.

Credentials and badges are concrete, performance-based representations of the knowledge, skills, and abilities obtained through sustained study within a career path or by demonstrating competence on an assessment. They communicate to businesses and institutes of higher education that the student has mastered specific skills and knowledge and that the student has the grit and persistence to complete a rigorous course of study. Digital badges embed rich information about when and how the badge was earned (criteria and evidence) and who issued it. In this manner, they go beyond static representations of skills endorsements and seals of accomplishment currently used by most educational institutions.

The concept of badges as a symbol of an accomplishment is not new (think of the Boy Scouts' merit badges), and California uses a form of badging with its Seal of Biliteracy. Proponents assert that badges bridge the multiple contexts in which learning takes place, motivate learners, build communities of practice,

and provide value to the learner. But in order for badges to accumulate value and credibility, the use of valid and reliable assessments tied to specific learning outcomes is critical.

The Mozilla Foundation in collaboration with the MacArthur Foundation is leading the charge for the development and implementation of a digital badge system for connected learning. The recognition of industry-approved credentials, certificates, and badges can serve as a powerful incentive to schools and districts to offer students a wide range of opportunities to build career readiness and therefore may have useful application for the LCAP or a student profile.

Options for incorporating such indicators in the LCAP would include:

- Recognizing the percentage of students who take and demonstrate a high level of performance on *robust assessments of technical skills and workplace learning*. This recommendation is already in practice in some states across the nation. In addition to industry-authorized skill-based assessments that meet a defined set of standards, it is important to include performance-based assessments that provide a fuller, more accurate picture of what students are able to do with their knowledge. Like the systems developed for Linked Learning and NAF academies, approved assessments should require students to use higher-level thinking to perform, create, or apply knowledge and skills to novel situations; should have validated instrumentation and scoring rubrics that facilitate the use of high quality tasks supported by reliable scoring; and should provide teachers with training that supports well-calibrated scoring.
- Recognizing the percentage of students who attain *industry certifications, credentials, or badges*. This recommendation is aligned with the

reporting requirements of organizations like Achieve and of the federal Carl D. Perkins Act of 2006, which stipulates that CTE programs of study should lead to an industry-recognized credential or certificate at the postsecondary level or a postsecondary degree. Currently, two states — Virginia and Kentucky — measure and include the number of students who earn industry-recognized credentials on the state report cards. Starting in 2015-16, Alabama will incorporate into its new accountability system career-readiness indicators such as students earning an approved industry credential. The very comprehensive NAF Student Certification Assessment System — which certifies rigorous coursework and satisfactory performance on end-of-course exams, culminating projects, a work-based learning internship, and high graduation requirements — also performs this function and could be similarly recognized.

- Allowing schools that have well-designed *graduation portfolio systems* for assessing students' academic and work-based knowledge and skills to use those, with state approval, in lieu of the current exit exam that measures and encourages few of the 21st century skills students need to succeed beyond high school. A small but growing number of states (including New York, for approved schools; Washington, for selected students; and Rhode Island, for all schools) have encouraged the use of performance-based evidence for graduation, often assembled in portfolios of work, in lieu of traditional exit exams. (A further discussion of portfolios systems is in the following section.)

To implement these recommendations, it will be important to begin to build these measures into existing data systems, such as CALPADS, district data systems, and voluntary data networks (e.g., CalPASS+, IEBC). Meanwhile,

the state should encourage districts to move voluntarily to richer measures, indicators and data that can be reflected in local reporting.

Recommendations for Graduation and Transition Systems

Because the accountability system for students is organized through high school graduation requirements and the reporting of student accomplishments to colleges and employers, we recommend that California take this opportunity to rethink how graduation expectations and transcripts are structured and reported so that student accomplishments — including those described above — can be part of the official record. This can take the form of:

- a *student profile* that systematically communicates more complete information about students to colleges and employers;
- a *graduation portfolio* that systematically assembles evidence of students' attainment of academic, technical, and dispositional competencies (approved portfolios could be used in lieu of the exit exam, as they are in some other states);
- *recognition on the diploma* of particularly rigorous accomplishments, such as credentials, certifications, or cumulative badges.

New accountability systems can support students' preparation for their futures by acknowledging student goals and accomplishments in more comprehensive ways as information is assembled and used for graduation and postsecondary transitions. Currently grades and test scores dominate this process, leaving little room for the student, the school, or the potential college or employer to know much about what the student cares about, has attempted, or has accomplished beyond these short-hand metrics.

This is because our traditional vehicles for ascertaining readiness for graduation and for communicating with postsecondary clients (employers and colleges) have provided little opportunity for identifying and communicating student knowledge, skills, and dispositions. Individual employers and colleges may ask, one by one, for this kind of information, but the process is not efficient or particularly well-designed for optimal communication.

One way to motivate students to create and pursue important goals for themselves, to encourage schools to support this process, and to give a more complete picture of student accomplishments, would be to incorporate *student profiles* that describe their accomplishments as part the information system that accompanies them when they leave high school. Some of these accomplishments might warrant a formal *recognition on the diploma* (like the California Seal of Biliteracy, established in 2012) or might be components in a *graduation portfolio*.

A *student profile*, which may be part of or independent from a graduation portfolio, provides data like grades and routine test scores, but it also can provide data from performance-based assessments, teacher observations and ratings of students, student self-reports, and other measures, such as internships and public service experiences.² The profile is different from a transcript in part because it contains a wider range of information and because, where possible, it presents the information in relation to student aspirations and interests. In other words, students who wish to pursue health occupations would have evidence in their profile of the degree to which they are developing the knowledge and skills needed to enter this field of study and pursue a career in it. Knowing something about student interests and aspirations provides a lens through which profile data can be interpreted and readiness determinations made more precisely.

Furthermore, a profile approach — particularly when connected to a portfolio that represents a collection of rigorous and meaningful work samples that have been completed to a standard — is important because students can only be expected to perform as highly as their aspirations dictate. Getting students to engage in challenging learning tasks requires that they have some motivation or reason for doing so. Connecting evidence of student accomplishments to their interests and aspirations helps show students why it is important to strive to achieve academically and to develop the learning skills and techniques they will need throughout their educational and occupational careers.

Graduation portfolios offer an important approach to developing and recognizing college and career readiness. In many schools in California, New York, and elsewhere, students refine key projects, papers and other evidence of meeting specific career- and college-ready skills to meet a college and career “portfolio standard,” defended before a committee of internal and external judges, and assembled in a collection that can inform colleges and potential employers. Quite often the graduation portfolio includes performance assessments scored against standards in English language arts, mathematics, science, and social studies, as well as for a work-based learning experience. Some also add world language, the arts, or other fields.

Many California schools (Envision schools, High Tech High, New Tech High, others in Linked Learning networks) also use such portfolios, which measure learning skills and 21st century competencies, as well as academic and technical knowledge and skills. Research has shown that these students experience greater success in college because they plan and organize major investigations and projects, acquire and analyze information, present and defend

their ideas, revise their work to meet a standard, surmount obstacles, and use feedback productively.³

California could advance this kind of rigorous work by providing a digital platform for students to assemble their work into a collection that can be used by employers and postsecondary institutions for admissions, advisement, and placement. To be easily used, the portfolio could include a summary that makes key evidence easily understood by a user within 10-15 minutes — for example, providing summary data, a short writing sample, a short videotape of the student presenting a learning demonstration, and a table of contents that can direct those who want more information to a link (see the figure below).

Some users will look only at the summary data. But a college considering a student for an art major, for example, could look more deeply at the art portfolio, while an employer wondering about a student’s oral skills and engineering knowledge could click on the





link to the work-based learning presentation about a design solution that the student developed. Students carry their portfolio with them after high school to support their strategies for postsecondary success.

A final way to recognize aspects of career readiness in the transition system would be to recognize certain student accomplishments as “badges” or acknowledgements on the diploma, or to include them in the graduation portfolio, like California’s Seal of Biliteracy or New York State’s historical recognition of Regents examination passage.

Transforming the ways in which the state and local districts record and recognize students’ accomplishments in the 21st century so as to focus on a broader set of skills and abilities is also an aspect of a new accountability system. Such a system might move us beyond seat time, Carnegie units, and passive recall on multiple-choice tests to a more proficiency-based approach that empowers students to take charge of and demonstrate their learning and abilities.

DIGITAL PORTFOLIO AT GRADUATION

Summary: Transcript, GPA, CCR test scores, statement of goals, distinctive accomplishments or “badges,” short essay, 2-minute video clip from portfolio presentation, table of contents

<p>Science & Math Inquiry</p>		<p>Investigation of water quality in a local community (science and mathematics); includes paper, data set, and PowerPoint</p>
<p>Social Science Inquiry</p>		<p>What social and political forces influenced the passage of the 14th Amendment to the Constitution? (historical inquiry)</p>
<p>Literary Analysis</p>		<p>Immigration and the American Dream in 20th century literature (literary analysis); includes videotaped presentation to panel</p>
<p>Work-Based Learning</p>		<p>Building Green: What my team learned from designing an environmentally friendly town hall annex (with engineering plans and specifications)</p>

Conclusion

With the recent LCFF and LCAP legislation, California is redefining postsecondary success. Through its new accountability system, the inclusion of college *and* career readiness indicators will propel schools and districts to prepare all students for both postsecondary options; thus, providing multiple pathways to success beyond high school.

If we are thoughtful about how to include meaningful career-ready indicators in the LCAP, the high school graduation and transition systems, coupled with college indicators, we will be able to encourage the provision of higher-quality learning opportunities to students. Such advances will also signal to students, parents, educators, and business and industry leaders that there are multiple pathways to postsecondary success and the ultimate goal of secondary education is to prepare all students equally for college and careers.

Endnotes

1. McMurrer, J., Frizzell, M., & McIntosh, S. (2013). *Career readiness assessments across states: A summary of survey findings*. Washington, DC: George Washington University Center on Education Policy.
2. For a further discussion, see Conley, D. T. (2014). *Getting ready for college, careers, and the Common Core: What every educator needs to know*. San Francisco: Jossey-Bass.
3. Foote, M. (2007). Keeping accountability systems accountable. *Phi Delta Kappan*, 88(5), 359-363; Friedlander, D., Burns, D., Lewis-Charp, H., Cook-Harvey, C. M., & Darling-Hammond, L. (2014). *Student-centered schools: Closing the opportunity gap*. Stanford, CA: Stanford Center for Opportunity Policy in Education; Zeiser, K. L., Taylor, J., Rickles, J., Garet, M. S., & Segeritz, M. (2014). *Evidence of deeper learning outcomes*. Washington, D.C.: American Institutes for Research.

Acknowledgements

This policy brief was prepared with support from the James Irvine Foundation. We gratefully acknowledge that support, along with helpful feedback on the original report from the following reviewers: Christopher Cabaldon, J.D. Hoyer, David Plank, David Rattray, Brad Stam, Roman Stearns, Chris Steinhauser, David Stern, and Gary Yee. The views presented here represent those of the authors, and not the reviewers or sponsor.

This brief summarizes the report, Recognizing and Supporting College and Career Readiness in the California School Accountability System. To see the full report and to join our mailing list, please visit: <https://edpolicy.stanford.edu/publications/pubs/1279>.