

ACCOUNTABILITY, ASSESSMENT, AND EVALUATION

INTRODUCTION

If anything has been learned from the federal No Child Left Behind Act (NCLB), it is that schools and districts will direct their efforts to those things for which they will be held accountable. NCLB requires that state accountability systems focus almost exclusively on student achievement in English-language arts and mathematics. As a result, there has been a concomitant increase in the amount of instructional time devoted to those subjects — and a decrease in time devoted to Career Technical Education (CTE) and other electives (CDE & CCCCCO, 2008; DataQuest, 2009).

This chapter looks at ways in which California’s accountability systems might be modified or enhanced to encourage the implementation of high-quality multiple pathways while still retaining a focus on student achievement in the core subjects of English-language arts and mathematics. The chapter’s main focus is the state-level accountability system and some of the underlying data on which it is based. In addition, local accountability and assessment systems, as well as issues related to program evaluation, are discussed.

OVERVIEW OF ACCOUNTABILITY IN CALIFORNIA’S K–12 EDUCATION SYSTEM

California’s K–12 education accountability system takes multiple forms and incorporates multiple measures of school and district effectiveness. The two primary measures, however, are the Academic Performance Index (API) and Adequate Yearly Progress (AYP).

The API. The API was developed in California to measure student achievement and promote academic growth across the curriculum in schools and districts over time. It employs a weighted system of results from the standards-based academic assessments in the Standardized Testing and Reporting (STAR) Program and the California High School Exit Examination (CAHSEE). The assessments measure achievement in English-language arts, mathematics, history/social science, and science. The test results are combined to produce an annual index number from 200–1000 for each school and district (and for student subgroups of significant size). Based on a school or district’s previous year API, a growth target is established for the following year. A school must increase its API score by five percent of the difference between the school score and 800 or maintain a score of 800 or above. A school that meets its growth targets for the school as a whole and for designated subgroups (e.g., low-income, Asian, English learners) meets its API goal. Schools that receive state low-performing school funds that fail to reach their API targets and do not demonstrate significant growth in their APIs are subject to a graduated system of sanctions and interventions.

AYP. AYP, on the other hand, is the primary measure of school and district success for the federal NCLB. While the assessments used in the AYP system are basically the same as in the API system, the metrics employed are significantly different. Whereas the API system generates an index number for schools and districts, the AYP system is based on the percentage of students

scoring proficient in English-language arts and mathematics, with the expectation that all students will reach proficiency by 2013-14. For high schools, California uses CAHSEE results to determine proficiency levels for AYP purposes. AYP also requires schools to report their graduation rates. (California also uses the API as a required “additional” indicator to meet federal accountability requirements.) Schools and districts that receive federal Title I funds and fail to meet their AYP targets are subject to sanctions that increase in severity over time.

School Accountability Report Cards. Although lacking the sanctions associated with the API and AYP, California adheres to state and federal requirements pertaining to the publication of School Accountability Report Cards (SARCs), which include for high schools several measures relevant to the multiple pathways approach. For example, schools and districts are required to report on SARCs the percentage of students completing all graduation requirements, both state and local, including the number of students passing the CAHSEE, dropout and graduation rates, teachers’ credential status, and the number of counselors and support staff. With respect to postsecondary preparation, high schools report on the SARC both the percentage of graduates who have completed the “a-g” requirements for public university admission and the percentage who have completed a CTE program. The SARC does not, however, report the percentage of graduates completing *both* the a-g requirements and a CTE program as suggested for multiple pathways programs.

Student-level expectations. In California, state minimum graduation requirements serve as a form of accountability in setting the rigor, number, and types of courses students must complete in order to graduate from high school and receive a diploma. These requirements, in turn, form the basis on which course completion and high school graduation rates — included in the AYP — are calculated. *Education Code* Section 51225.3 states that all pupils receiving a diploma of graduation from high school must complete all of the following courses while in grades nine to twelve (as well as pass both portions of the CAHSEE). Each of the following courses must have a duration of one year, unless otherwise specified (see <http://www.cde.ca.gov/ci/gs/hs/hsggrmin.asp>):

- Three courses in English
- Two courses in mathematics, including one year of Algebra I beginning in 2003-04 (*California Education Code* Section 51224.5)
- Two courses in science, including biological and physical sciences
- Three courses in social studies, including U.S. history and geography; world history, culture, and geography; one semester in American government and civics, and one semester in economics
- One course in visual or performing arts or foreign language. A course in American Sign Language is deemed a foreign language course
- Two courses in physical education, unless the pupil has been exempted pursuant to *Education Code* Section 51241
- Other coursework as the school district’s governing board may by rule specify

These requirements, while only establishing minimum standards, nonetheless reflect the statewide view of what students are expected to accomplish in four years of high school study. These courses differ in both number and level of rigor from the minimum set of courses required for freshman admission to the California State University and the University of California and

reflected in the Achieve¹ 2009 report as meeting college- and career-ready expectations — including four years of “challenging” mathematics (equivalent to Algebra II) and four years of grade-level English aligned with college- and career-ready standards. In addition, the minimum high school graduation requirements separate — unnecessarily and perhaps even detrimentally — academic courses from the “alternative means for pupils to complete the prescribed course of study,” for which the *Education Code* provides the following examples:

- Practical demonstration of skills and competencies
- Supervised work experience or other outside school experience
- Career technical education classes offered in high schools
- Courses offered by regional occupational centers or programs
- Interdisciplinary study
- Independent study
- Credit earned at a postsecondary institution

By contrast, the multiple pathways approach seeks to maximize students’ opportunities by surpassing the minimum state requirements and incorporating alternative means for students to demonstrate academic mastery. The approach elevates both rigor — in number and quality of academic courses taken and inclusion of a rigorous and relevant technical core — and pedagogical effectiveness through the explicit and systematic incorporation of CTE into academic coursework and other instructional strategies including project-based and work-based learning.

State content standards. Underlying the graduation requirements, API, and AYP are courses that adhere to state-adopted content standards. The standards are intended to define the skills and knowledge that students taking those courses are expected to master. In California, content standards in the core academic subjects have been adopted based on an extensive process. In addition, in 2006, California adopted CTE Model Curriculum Standards, aligning learning within CTE pathways with academic standards and transferable foundational career-related skills.

Nonetheless, in California, students can meet the state’s high school graduation requirements and still be unprepared for success in college or the workplace, not only because of the inadequate number and types of courses required for graduation, but also because of the content of the courses and the manner in which the content is delivered to students. One prominent national study has recently concluded that, “Simply put, our standards have not kept pace with the world students are entering after high school” (Achieve, 2009).

Based on its annual 50-state surveys of alignment between a state’s high school policies and the expectations of colleges and employers, Achieve found in 2004 that California's course requirements for high school graduation lag behind the requirements of many other states. For example, Achieve found that California was one of only six states that requires no more than three years of English (37 states require four years), and one of only 13 states that requires only

¹ In January 2008, California joined the ADP network, a project of Achieve, a non-profit education reform organization created in 1996 by the nation’s governors and corporate leaders. Retrieved November 8, 2009, from <http://www.achieve.org/AboutAchieve>.

two years of mathematics (30 states require more than two years). While Achieve found in 2007 that California is one of only 12 states that aligned its high school standards with college and work expectations, it also found that California is one of 21 states that does not align its high school graduation requirements with college and workplace expectations, and one of 33 states that does not hold its high schools accountable for graduating students who are college- and work-ready. In 2009, Achieve found that California is not among the 28 states (and the District of Columbia) that either require all students to complete a college- and career-ready curriculum or are at least planning to establish higher expectations for the preparation of the state's high school graduates for college and careers.

Findings from assessments of college preparedness have helped spur a national movement, spearheaded by the National Governors Association Center for Best Practices and the Council of Chief State School Officers, in partnership with Achieve, ACT, and the College Board, to define a set of “Common Core State Standards,” emphasizing the “standards that will help prepare students with the knowledge and skills to succeed in college and careers and to be prepared to compete globally.” The standards will include “high-level cognitive demands by asking students to demonstrate deep conceptual understanding through the application of content knowledge and skills to new situations.” The purposes and practices inherent in the multiple pathways initiative are consistent with this movement toward depth of knowledge. Multiple pathways programs focus the learning process so that students can meet both academic and career-technical standards *and* achieve the depth of understanding through project-based, work-based, and other applied learning strategies.

DATA SYSTEMS TO SUPPORT ACCOUNTABILITY

Data are needed to support accountability systems. Until recently, California has not had a data system to track student progress over time, a shortcoming that has been noted in both national and statewide studies. However, progress has been made. California’s K–12 longitudinal student data system (CALPADS) was launched in August 2009; a state longitudinal teacher data system (CALTIDES) is scheduled to be launched in 2010-11; intersegmental data system discussions are under way; and the State Chief Information Officer is required to prepare a strategic plan for a preschool to graduate school longitudinal data system and submit it to the Legislature and the Governor by January 1, 2010.

The new federal education leadership has reiterated the federal government’s longstanding admonition that states need to implement and maintain data systems that can “track” a student’s progress from pre-kindergarten through college and the workplace. Both Regional Occupational Centers and Programs (ROCPs) and school district CTE programs are required to track students’ academic and technical skill attainment; school completion and/or graduation rates; placement in postsecondary or advanced training, in military service, in employment, or in nontraditional enrollment and completion (CDE & CCCCCO, 2008). Perkins grantees submit data that are combined into a “Consolidated Annual Report” that is submitted to the U.S. Department of Education. However, no system currently exists to track postsecondary persistence or employment beyond the district data collection through Perkins funding for CTE programs.

Related to the issue of tracking student course completion is that of cataloguing courses in the statewide CBEDS. CBEDS currently tags courses “by subject area” or as “CTE”; it does not accommodate listing courses that meet *both* CTE and subject area criteria in a way that can be retrieved in either data set. For example, many multi-media courses are listed under “Art,” with 463 digital art/computer art/graphics courses listed. In addition, under “Career Technical Education,” many courses are listed under the Arts, Media, and Entertainment industry cluster. There is no way of easily discerning from the database which of these courses fit the criteria for *both* CTE and academic courses, and beyond this, which meet the “a to g” criteria.

The multiple pathways approach encourages districts to seek “a-g” approval for CTE courses so that these courses can engage students, provide high-quality technical skill development, and promote postsecondary transition, while minimizing the impact on students’ schedules. A CBEDS system to identify those courses that meet both or several criteria would enable educators to identify these courses and send a strong signal that the state encourages integration.

LOCAL ASSESSMENT AND ACCOUNTABILITY

Although the public’s attention is often focused on state assessments and the related accountability systems, much in the assessment arena occurs, quite correctly, locally. With increasing frequency, schools and districts are creating local formative assessment systems to monitor pupil progress toward end-of-course and end-of-year academic goals. Some districts are also matching individual student data over time, to monitor how programs are contributing to the growth of specific students from year to year.

Local assessments complement state level assessments. State assessments must meet strict criteria for reliability and validity while still being cost effective, thus generally leading to a reliance on multiple choice formats. Local assessments, on the other hand, can take a broader approach, using a variety of assessment formats and linking more closely to local program offerings. Portfolios of student work, culminating projects, student performances and workplace evaluations are assessments that are best done locally and are ideally suited for assessing student progress in multiple pathways.

The education frameworks in each content area provide specific guidance to districts on implementing local assessment within a standards-based curriculum and instruction environment. The frameworks describe local assessments within three categories; entry-level assessment, progress monitoring, and summative assessment. Each of the frameworks describe the processes districts, school, and instructors can use to develop and evaluate student achievement in these three domains. The Career Technical Education Framework and the Visual and Performing Arts Framework give specific guidance to schools on considerations for building performance-based assessments. Within both, students are often required to demonstrate through demonstration and products the mastery of specific skills and concepts combined within the context of the subject area or a career pathway. The guidance in the framework documents, such as the design and use of scoring rubrics or portfolio assessment, are particularly congruent with the contextual learning within multiple pathways problem and project based instructional approaches.

A key resource in helping develop effective local assessments is the CTE Online initiative. CTE Online is an internet-based system that assists CTE teachers in building standards-based lessons and related assessments that combine both career pathway and academic skills. The system leads instructors through a process to identify standards linked to instructional activities that are of sufficient scope and rigor to demonstrate either support, reinforcement, or mastery of academic skills. Each lesson and assessment is reviewed by academic content experts trained to give CTE instructors feedback on the lesson design and accompanying assessments. Lessons that are deemed to be high quality are posted so that other instructors registered within the system can adopt or adapt the lessons to their classrooms. The CTE Online system was designed primarily for CTE instructors, but can be adapted to any educational subject area. This system has proven useful to many teachers within academies and pathway programs, and could easily be expanded to support multiple pathways instruction and assessment.

In addition, WestEd is working with the National Academy Foundation (NAF) to develop a comprehensive student assessment system for NAF Academies. The emerging system includes a multi-method approach to assess a broad range of content and skills that allows students to demonstrate their learning in various ways, including project assessments, end-of-course exams, and portfolio assessments.

PROGRAM QUALITY ASSESSMENT

Many educational programs using a multiple pathways approach, both in California and nationally, are currently experimenting with various assessment formats, including program quality assessment. Program quality approaches have been supported throughout the state over the past two decades to assist schools and districts to assess whether educational programs have the components, characteristics, and systems in place that are of high quality and lead to increased student achievement. Nearly every program quality instrument developed in recent years focuses on both academic rigor and the policy intent undergirding the program.

High School Accreditation

California high schools participate in a comprehensive school-wide quality assessment process — the accreditation process — administered by the Western Association of Schools and Colleges (WASC). WASC accreditation is a crucial event for California schools for several reasons. For example, the UC will only grant “a to g” course approval at WASC accredited schools. To be eligible for Cal Grants, a student must graduate from an accredited school, and colleges and universities are reluctant to admit students from non-accredited high schools.

WASC accreditation normally takes place over a six-year cycle,² culminating in a self-study and an onsite review by a WASC visiting committee of educators. Central to the process is the framework provided by the WASC criteria, a set of research-based guidelines for school improvement and accountability. WASC is sensitive to local standards and has adapted the criteria for joint efforts in different states, including California. In California the joint process is called Focus on Learning. Several school districts reported success in adapting the WASC

² Initial applications are reviewed in three years.

process to meet the multiple pathways needs of their schools, helping to move the reform effort forward.

Pathway Certification

In response to the advent of the multiple pathways approach to high school design a *Pathway Certification Tool* is being piloted by ConnectEd to be used by schools and districts participating in the Multiple Pathways District Initiative. This tool provides indicators of quality across program elements, rating each element on an implementation rubric. The tool provides sufficient detail that individuals just embarking on the design of multiple pathways can get a clear picture of where they are headed, while those currently implementing pathways can use the tool for self-assessment and program improvement. Currently, the tool is undergoing modification so that it can be used more broadly to certify the fidelity of implementation of multiple pathway programs.

The certification tool would be useful for external evaluators working at the school and district level. Local program evaluation at the local level can lead to improvements in practice. When local evaluations are reviewed in the aggregate at the state level, best practices can be identified, and state support can be directed where it is needed.

Academy Certification

The California Career Academy Support Network in cooperation with the CDE has worked on models of program quality and certification tools since the early 1990's. These efforts have led to prototype certifications and piloted projects to help districts evaluate the degree to which academies are following the California Partnership Academy model as set forth in Education Code.

Specialized Program Certification and Awards

The Regional Occupational Centers and Programs Model Programs certification is an example of assessing program quality. ROCPs conduct a self-study within programmatic and administrative areas to determine whether or not they will qualify for state recognition as a Model Program. A validation visit is conducted by a team of state and local experts to determine the accuracy of the self-study.

A similar process is conducted for the middle grades School to Watch program, the Model Continuation Schools program, the Title I Achieving Schools designations, and the annual Distinguished Schools Award program. In all of these efforts, schools reflect on their data, systems and practices and how to improve them to a level of excellence.

Essential Program Components

The CDE and the State Board of Education have adopted nine Essential Program Components (EPCs) for use as a framework for California schools and districts to focus educational improvement efforts. The nine components include:

1. Use of standards-based State Board of Education (SBE)-adopted (kindergarten through grade eight) or standards-aligned (grades nine through twelve) English/reading/language arts and mathematics instructional materials, including intensive interventions and English Language Development (ELD) materials.
2. Implementation of instructional minutes for basic core Reading/Language Arts (RLA) and mathematics programs, intensive intervention and strategic support courses as well as additional instructional time for structured ELD at all grade levels.
3. Use of an annual district instructional/assessment pacing guide for grades K-8 and high school.
4. Implementation of a School Administrator Instructional Leadership Training Program. Instructional materials based professional development and ongoing targeted professional development and support is provided for instructional leaders to ensure the full implementation of the district adopted program and the EPCs.
5. Fully credentialed, highly qualified teachers, per the requirements of the Elementary and Secondary Education Act (ESEA) and professional development on SBE-adopted instructional materials.
6. Implementation of ongoing instructional assistance and support for RLA, ELD and mathematics teachers through the use of content experts, specialists, and instructional coaches.
7. For all grade levels, implementation of a student achievement monitoring system that provides timely data from common formative and curriculum-embedded and summative assessments for teachers and principals to use to monitor ongoing student progress, identify student needs, inform instruction and determine effectiveness of instructional practices and implementation of the adopted programs.
8. Implementation of monthly structured teacher collaboration for all RLA, ELD and mathematics teachers by grade level (K-8) and common course and department levels (9-12) facilitated by the principal.
9. Implementation of fiscal support aligned to full implementation of EPCs.

Schools receiving federal ESEA Title I funding, whether or not they are in program improvement (PI) status, use the adopted nine Essential Program Components framework as a construct for evaluating program quality. Those PI schools designated as in “monitored” status participate in the School Assistance and Intervention Team (SAIT) process. A formal evaluation based on the EPCs is conducted by a SAIT provider, which leads to a school improvement plan. The plan is designed to improve a school’s educational delivery components aimed at improving student achievement over time.

The multiple pathways approach appears to be an important means to help turnaround low-performing high schools, and can incorporate and enhance the nine EPCs. One of the important tasks that will need to be further developed is concretely discerning the intersections between the EPCs, the four components of multiple pathways schools, and the SAIT process.

ADDITIONAL POLICY ISSUES REGARDING ACCOUNTABILITY IN MULTIPLE PATHWAYS APPROACHES

Given the challenges of pathway creation, implementing multiple pathways programs will likely occur incrementally across the State. For example, some students coming into high school may not be ready for “a to g” coursework without significant support. However, with ongoing assessment of students and programs and corresponding system improvements and supports, it would be expected that more students would both enroll and successfully complete a rigorous academic curriculum as well as the other components. This progress — in both pathway development and enrollment levels — must be monitored to ensure fidelity to the multiple pathways approach, in the same way that enrollment related data, as well as system design issues, are monitored in the California Partnership Academies (CPAs). With regard to work-based learning and counseling, monitoring may occur through enhancements to reporting requirements for ROCP and AB 1802 if these programs are reinstated.

Beyond existing specifications for academic and technical core requirements, guidelines are needed regarding the levels of activity that would constitute the meeting of criteria within each component. This information would include formal definitions of school-based enterprise, social enterprise, community-based project, service learning, and internship in *Education Code* Section 51769, just as there exists a definition of “job shadowing.” It would also require formalization of counseling and career guidance or planning requirements, with concomitant reporting, just as was done in the crafting of AB 1802.

As multiple pathway programs expand, they add to the number of smaller instructional units in high schools, which already include various small learning communities, academies, and new small schools. California’s statewide accountability system currently does not provide information about the performance of students in these smaller units (except for small schools with their own County-District-School codes). To obtain such information, district data systems must “flag” students enrolled in each smaller learning environment, and update this flag each semester.

In addition, the year-end test scores used to compute API and AYP do not indicate how well each of these smaller units is functioning, because some of these small units may initially attract higher- or lower-performing students. The API “growth” calculations also can be misleading for small programs, because they compare each year’s students with the previous year’s students at the same grade levels, and in small units the composition of students may change significantly from year to year. The best way for districts to check on whether students in pathway programs or other small learning environments are making good progress is to match data for individual students from one year to the next. Performance in the previous year can then be used to “predict” students’ performance in the current year. Pathway programs or other small instructional groupings where students perform above their predicted level are said to have “value added.” This kind of analysis can be done with test scores even if the tests are not vertically aligned from year to year. This analysis also can be done with other measures of performance that districts routinely record, including attendance, credits earned, grades, disciplinary incidents, and promotion.

Further, measurement indicators for each of the four core components of a multiple pathways program need to be delineated and linked to the existing accountability structures in place. A key issue will be determining what college and career readiness means and how it is measured. While there is overlap among college academic readiness and career readiness, there are components of each that are necessarily unique and require multiple methods of assessment. Further discussions are needed to determine the skills necessary for success in *both* postsecondary education and future careers (and for that matter, in navigating through the high school years), such as study skills, habits of mind, and personal goal setting, as well as those that are unique to each domain. While difficult to assess, there is agreement that all of these skills are critical for the development of a highly educated and trained citizenry.

CONCLUSION

The state's assessment and accountability systems play influential roles in shaping the delivery of curriculum and instruction in the public schools. If changed in particular ways, these systems could potentially stimulate and increase the supply of multiple pathways programs in schools and districts throughout the state. As a first step in this direction, California's continuing efforts to improve the alignment of the state's K–12 education policies with the expectations of colleges and employers should be explicitly recognized as a critical component of the state's ongoing efforts to create the conditions necessary for closing the achievement gap. While the achievement gap in California has been commonly defined as differences in academic performance as measured by the results of the state's standards-based assessments, the gap is also evident in the differences in student preparation for success beyond high school graduation.

California could use its participation in the American Diploma Project to bring attention to the need to raise expectations for student achievement by enhancing the rigor and relevance of the state's course requirements for high school graduation. For example, California policymakers should be engaged in serious policy discussions about increasing the number of English and mathematics courses required for high school graduation from three English and two mathematics, to four English and four mathematics; and about adding career awareness, career-technical, work-based learning, or capstone project component to the state's high school graduation requirements. California should also consider the need to identify and adopt appropriate college and career readiness indicators, goals, and targets that could be incorporated into California's K–12 education accountability system.

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