Meeting

California's Challenge Access, Opportunity, and Achievement

Key Ingredients for Student Success

A report by the California School Boards Association and its Education Legal Alliance

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Key Ingredients for Student Success

CSBA Officers

Susan Henry, *President*

Mike Walsh, *President-elect*

Chris Ungar, *Immediate Past President*

Contributors to this Report

Manuel Buenrostro
Education Policy Analyst, Policy and Programs

Julie Maxwell-Jolly, PhD
Senior Director, Policy and Programs

Naomi Eason, EdD
Assistant Executive Director, Member Services

Keith Bray
General Counsel and Director, Education Legal Alliance

Troy Flint
Senior Director of Communications/PIO

Kerry Macklin
Graphic Design Manager, Communications

Kelsey Krausen, PhD
Education Research Consultant

Letter from the CEO & Executive Director

C alifornia is the most diverse state in the country, making us strong and endowing us with endless promise. To seize that promise, we must have a public education system that can prepare all students to meet their potential. Every student attending California public schools, regardless of race, gender identity, socio-economic status, or immigration status, must have access to the resources required to graduate from high school ready for college, career, and life success. This is a vision that the California School Boards Association (CSBA) and its members care deeply about and for which we will continue to advocate.

This vision of college and career success for all students is precisely why we care about the systematic underfunding of our schools. CSBA has long advocated for a greater investment in public education and includes "fair funding" as one of the four pillars in its policy platform. Moreover, investing adequately in the education of our children is a moral obligation and good public policy.

This report is the second in a series and follows *California's Challenge: Adequately Funding Education in the 21st Century*, drafted by the Education Legal Alliance's (ELA) Adequacy Committee in 2015. It is part of our continued effort to highlight the benefits of a strong and adequately funded education system for California's students and for the state's growth and prosperity. This report aims to answer the question, "What does an adequately funded education system look like?" by describing eight essential ingredients and outlining key research and evidence that points to their urgent need. It also highlights examples of school districts and county offices of education that are stepping up to the plate to provide more opportunities for their students.

It is our hope that this report, along with our other publications, will inspire you to join us in our journey towards a more just and adequately funded public education system in California.

Sincerely,

VMB

Vernon M. Billy, *CEO & Executive Director, CSBA*

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Executive Summary

This report is founded on CSBA's vision and support for an adequately funded education system in California—one in which all students have the opportunity to graduate from high school prepared for college and career success. This success is highly dependent on the education system's ability to prepare all students with a broad set of skills. These include the ability to think critically, solve complex problems, communicate in a variety of situations and modalities, and understand their roles and responsibilities in their community, country, and the world.

This publication is second in a series, following *California's Challenge: Adequately Funding Education in the 21st Century.* It lays out a vision for a quality public education system where all students have access to the opportunities they need to achieve their potential, including:

❖ Identifying eight areas of opportunity that are key ingredients of an adequately funded education system;

❖ Summarizing research evidence supporting the impact of these ingredients;

❖ Summarizing data on gaps in access to these ingredients for economically disadvantaged students and students of color;

❖ Providing information on the achievement gaps that result from these opportunity gaps; and

❖ Describing examples of implementation of each of the ingredients drawn from a range of school districts and county offices of education.

This report can also be a resource for board members as they seek ideas for investments that are research-based, look for opportunities to advocate for equity in their schools, and join efforts in support of adequacy more broadly.

Introduction

CSBA's vision for education is one in which all students have the opportunity to graduate from high school with a meaningful diploma—one that means they are prepared for college and career success, so that their pursuits are determined by their choices, not by the limitations of their preparation. To achieve this vision, all students need a range of educational opportunities, and the supports to take advantage of them. An adequately funded education system is essential to providing these opportunities.

Existing Opportunity Gaps

We know students who attend some schools have far more opportunities that contribute to their success than others do—for example, taking rigorous courses taught by expert teachers, studying in well-equipped facilities, and using up-to-date technology. We also know that some students have greater opportunities in their homes and communities due to their economic circumstances—for example, extra learning time through after-school and summer activities, enrichment classes like music and art that are often not available in school, and assistance with school work from tutors.

All California students need these and other opportunities to foster their success. For some, it falls to the education system to provide opportunities that others may have in their schools, homes, and communities. Adequate funding is necessary to close these opportunity gaps, which will lead to closing achievement gaps.

Achievement Gaps

Multiple achievement gaps signal a crisis that California schools must address. These gaps begin early and cover measures ranging from proficiency in English language arts, math, science, and other subjects, to high school graduation and college attainment rates. For example, according to the 2016 California Assessment of Student Performance and Progress (CAASPP), only 23 percent of economically disadvantaged students met or exceeded standards in math, compared to 56 percent of non-economically disadvantaged students—a 33 percentage-point gap. Similar gaps exist between English learners and fluent English-proficient students, students identified for special education services and students who are not identified, and Latino or African-American students (who are disproportionately economically disadvantaged) and white students, in both English language arts and math.[1] Furthermore, the demographics of California highlight the urgency that these gaps represent—63 percent of students are economically disadvantaged,[2] 76 percent are non-white,[3] 21 percent are English learners,[4] and 12 percent are identified for special education services.[5]

Evidence that Money Matters

As was highlighted in *California's Challenge: Adequately Funding Education in the 21st Century,* California consistently ranks below most states in per-pupil funding and education-spending effort (defined as total education funding as a percentage of per capita gross domestic product). According to a 2017 school funding national report card, California was near the bottom of all states in per-pupil funding and is one of 11 states to get an 'F' in effort.[6] This lack of adequate investment in education has meant fewer services and staff in schools. According to 2014-15 data from the United States Department of Education, California had the third highest total student-to-staff ratio, the second highest student-to-counselor ratio, and the highest student-to-teacher ratio of all states.[7] Moreover, the 2017 school funding national report card ranked California near the bottom in teacher wage competitiveness, citing that teachers in the state make only 79 percent of what similar California professionals make.[8]

This lack of investment continues even as growing evidence points to a positive relationship between education funding and improved student outcomes, particularly for economically disadvantaged students. Multiple studies have shown that economically disadvantaged students who attend well-resourced schools demonstrate greater academic achievement than similar peers in schools with scant resources.[9,10] In a rigorous 2016 study of the impact of funding reforms on student outcomes, researchers found that increased funding for school districts with a large concentration of economically disadvantaged students resulted in increased student test scores. Their evidence supported the conclusion that the benefits of these investments to future student earnings far outweighed the costs.[11]

Further evidence suggests that, given sustained education funding increases over the course of their school careers, economically disadvantaged students can realize just as much long-term success as their better-off peers. According to a 2015 study, a 25 percent funding increase for economically disadvantaged students helped to close the gaps in educational attainment and adult earnings between these students and their wealthier peers.[12]

Key Ingredients

While it is clear that California's students need more resources to foster their success, how schools invest those resources is also crucial. It is essential to invest equitably—providing opportunities for students according to their needs—and effectively—dedicating resources to strategies for which there is evidence of a positive impact on students.

To that end, this report explores eight ingredients of an adequately funded education system. These ingredients represent concrete, research-supported strategies to ensure that all students graduate college and career ready with a meaningful high school diploma. The descriptions of these ingredients provide a picture of what adequate resources for a PreK-12 public education can provide to students, or conversely, what a lack of resources denies them.

The Eight Key Ingredients for a College, Career, and Life Readiness High School Diploma	
❶ A rigorous, well-rounded, and relevant curriculum	❷ Academic support to improve achievement
❸ Staff with the skills, knowledge, and competencies to promote student success	❹ Early support and services
❺ Education and Assistance for Families to Support and Guide Learning	❻ Physical, mental, and environmental health supports
❼ 21st-century infrastructure and technology	❽ Services for students with specific needs

1 A Rigorous, Well-Rounded, and Relevant Curriculum

Description of a Rigorous, Well-Rounded, and Relevant Curriculum

All students need access to rigorous, well-rounded, and relevant curriculum to graduate from high school, college and career ready. At a minimum, rigorous courses must meet A-G requirements in high school, while elementary and middle schools must prepare students for success in those courses. A well-rounded curriculum helps students to master important concepts in English language arts and math. Furthermore, all students should have equal access to Advanced Placement (AP), advanced math and science, and other rigorous courses. A well-rounded curriculum also includes arts, science, history, civics, financial literacy, ethnic studies, world languages, and other subjects, rather than just limiting education to English language arts and math.

Curricular relevance is another critical component of an effective education. Students learn best when they can see the connection between what they learn in school and their lives, including issues of importance to their communities and topics related to their career aspirations. In addition, learning is enhanced through application—a principle that is fundamental to the California State Standards, including the Next Generation Science Standards.[13] Students will be more successful in their careers if they are able to apply their learning to questions they will need to answer in the workplace. Therefore, programs in which students gain practical skills, such as working together to solve a problem through project-based learning, mentoring those in earlier grades, serving as tutors, participating in work-related experiences (internship, part-time, or other), and volunteering in the community, are critical.

Research on a Rigorous, Well-Rounded, and Relevant Curriculum

Research shows that students who have the opportunity to take rigorous courses reap multiple benefits. To begin with, courses that meet A-G requirements are necessary for entry into a California State University or University of California. In addition, taking more advanced math and science courses during high school is associated with higher earnings and labor market outcomes in science, technology, engineering, and math (STEM) fields.[14] Evidence points to especially large returns with regard to calculus.[15] For those who have access to AP courses, these courses are associated with increased college enrollment rates and faster college completion.[16] Dual enrollment, which allows students to enroll in college-level courses while in high school, is also particularly valuable for students of color and economically disadvantaged students. Students who participate in dual-enrollment programs graduate from high school and enroll in college at higher rates, are less likely to need remedial college coursework, and are more likely to graduate from college.[17]

There is also substantial evidence that providing students with a well-rounded educational curriculum improves their outcomes. For example, a recent report by Education Trust-West highlighted the benefits of science and engineering courses in promoting both content and language learning for English learners.[18] Arts education has also been associated with improved student academic outcomes. A study of Learning through the Arts, a program that provides a curriculum that integrates arts with academic subjects in elementary school, found that participants scored higher on math computation tests by the third year in the program than non-participants.[19] Another study found that students in elementary schools that offered instruction in art, music, and physical education taught by specialists performed better in academic subjects than students in schools without these opportunities.[20] Similarly, a study of high school students, found that economically disadvantaged students attending schools with a rich arts curriculum had better college attendance, grades, employment, and college completion than their peers in schools not offering such a curriculum. The study also found that English learners in high schools with a rich arts curriculum were more likely to pursue and complete a bachelor's degree or higher.[21]

Relevance in the curriculum is particularly important for motivating and engaging students. Many students do not drop out because they are unable to keep up with their peers, but rather because they are unmotivated and uninterested. For example, according to a survey of high school dropouts, 47 percent cited uninteresting classes as a major reason.[22] Given these statistics, it is imperative that schools find better ways to make learning relevant. Work-based learning is one strategy that has proven successful. A study of work-based learning in California found that participating students of color enrolled in college at twice the rate of similar non-participants, and that college enrollment rates were higher for all students in the program compared to the local and state rates.[23] Research has also found that students identified for special education services benefit from work-based learning programs—participants complete program coursework at higher rates and have higher attendance and graduation rates than those not enrolled in such programs.[24]

Other, more comprehensive models that combine work-based learning within a broader program have also proven successful. These include:

- ❖ **Career Academies.** A high school model that partners with employers and postsecondary institutions to incorporate work-based learning within a rigorous academic curriculum and a career theme. Research has shown that high school students who graduate from career academies earn, on average, 11 percent more per year than their non-career academy peers (the gains are 17 percent more annually for young men). Other benefits of this model include reduced dropout rates and increased postsecondary achievement.[25]

- ❖ **Linked Learning.** An approach that integrates a rigorous academic curriculum with sequenced and high-quality career and technical education, work-based learning, and supports to help students stay on track. Linked Learning pathways are organized around industry themes. These programs require collaboration among teachers across subject areas and with industry professionals that can support programs by facilitating work-based learning experiences and provide career mentoring. Students in certified Linked Learning pathways earn more credits by the end of high school, are more likely to graduate from high school and, upon graduation, to be ready or conditionally ready for college in English language arts.[26]

Evidence of Gaps in Access to a Rigorous, Well-Rounded, and Relevant Curriculum

Unfortunately, access to rigorous courses is not equal for all students. Two factors contribute to the opportunity gap in access: 1) the availability of courses in schools, and 2) the ability of students to enroll and succeed in the courses offered. Statistics indicate that students of color and economically disadvantaged students are less likely to attend schools that offer rigorous courses. Moreover, students of color and economically disadvantaged students that do attend schools where these classes are offered, are less likely to be enrolled in them. This outcome may be attributed to a lack of previous preparation, poor or nonexistent advising, or lack of supports to help students succeed in challenging courses.[27] School and district policies can also impede students from taking more rigorous courses despite good grades and test

scores. This is known as *math misplacement* within that particular subject, and evidence shows that it can dispropor-tionally affect students of color.[28] Furthermore, staff capacity can be a significant factor in the school's ability to offer rigorous courses and in the quality of such courses. More evidence on the gaps in quality staff and its disproportionate impact on economically disadvantaged and students of color is discussed in *Chapter 3: Staff with the Skills, Competen-cies, and Knowledge to Promote Student Success* on page 15.

The gap in access has resulted in economically disadvantaged and students of color being:

❖ **Underrepresented in advanced STEM and AP courses.** According to 2011-12 data from the Civil Rights Data Collection, California's African-American, Latino, and American Indian/Alaska Native students are underrepresented in advanced STEM and AP courses (see table below).[29]

2011-12 Enrollment in Calculus, Physics, AP Math, and AP Science, by Ethnicity

Ethnicity	% of CA Student population	Calculus	Physics	AP Math	AP Science
Latino	52.1%	**25.8%**	**39.6%**	**23.5%**	**24.8%**
White	26.0%	33.7%	30.5%	34.8%	33.8%
Asian	10.6%	32.8%	20.2%	34.2%	33.8%
African-American	6.6%	**3.3%**	**5.1%**	**2.8%**	**3.0%**
Two or more races	2.8%	3.0%	3.0%	3.2%	3.0%
American Indian/Alaska Native	0.9%	**0.4%**	**0.5%**	**0.4%**	**0.4%**
Native Hawaiian/Pacific Islander	0.9%	1.0%	1.0%	1.1%	1.2%

❖ **More likely to graduate from high school without meeting A-G requirements.** During the 2015-16 school year, 52 percent of white, 63 percent of Filipino, and 73 percent of Asian students graduated from high school having completed all courses required for entry into a UC or CSU campus (A-G requirements). The same requirements were met by only 37 percent of Latino, 34 percent of African-American, 31 percent of American Indian or Alaska Native, and 39 percent of Pacific Islander students.[30] Moreover, only 37 percent of economically disadvantaged students met these requirements.[31]

Fair and Transparent Policies to Counteract Math Misplacement

School districts and county offices of education must implement fair and objective placement policies (such as CSBA Sample Policy BP 6152.1 – Placement in Mathematics Courses) to address the challenge of math misplacement. School districts in California that have already taken steps to adopt fair mathematics placement policies report that such policies have helped eliminate the potential bias in mathematics placement decisions and ensure fairness and accuracy throughout the mathematics placement process. For more information, see Math Misplacement: A Joint Publication of CSBA and Silicon Valley Community Foundation.

Examples of Programs That Provide Access to a Rigorous, Well-Rounded, and Relevant Curriculum

AP Initiative (Corona-Norco Unified School District). To close ethnic and income participation gaps in AP and International Baccalaureate (IB) courses and raise performance in these courses, Corona-Norco USD partnered with Equal Opportunity Schools (EOS). At the beginning of each school year, students are recruited, placed into AP courses, and provided with tutoring and other supports (including a Saturday academy, an extra study period, and a summer institute) that promote a successful transition to the rigorous coursework. Support is also provided for teachers and parents. During the 2015-16 school year alone, 800 more students were on target to pass an AP course than in the previous year. For more information, visit http://www.cnusd.k12.ca.us/Page/27892.

The College Promise (Long Beach Unified School District). The College Promise has been recognized as a national model for increasing college access and attainment. Created in 2008, the program is a partnership between Long Beach USD, CSU Long Beach, Long Beach City College, and the City of Long Beach, and is designed to increase college readiness and access, and improve graduation rates. The College Promise provides a range of supports to participating students, including access to college coursework during high school. For example, the school district expanded access to AP courses and reduced AP test fees. In addition, Long Beach City College provides participants with free tuition for one year and CSU Long Beach guarantees admission for all qualified participants. As a result of the initiative, the number of students completing college-level math and English has increased dramatically, as has the number of students who enrolled at CSU Long Beach. For more information, visit http://bit.ly/2mFPfn3.

Linked Learning (Porterville Unified School District). Porterville USD is a rural school district in California's Central Valley that serves over 14,000 students and spans nearly 3,000 square miles. Between 2009 and 2014, the district received $3 million in grants from the James Irvine Foundation to develop a system of district-wide college and career pathways. Utilizing the Linked Learning approach, the district offers 10 career-themed pathways for high school students. This new approach to learning seems to be working, as one study indicated that academic performance for the 25 percent of the students participating in Linked Learning was greater than for students in district high schools overall. In April 2016, the Director of Student Pathways for Porterville USD was named Educator Champion by the Linked Learning Alliance, recognizing the district's exemplary leadership and success in implementing quality Linked Learning opportunities for students in California. For more information, visit http://bit.ly/2p3cvQS.

Robotics K-12 (Hesperia Unified School District). Hesperia USD's robotics classes are designed for both technical and non-technical students and give them the opportunity to explore the world of robotics through the basic principles of design, construction, and programming. Moreover, robotics teaches critical thinking, communication, collaboration, and creativity to maximize learning through real-world application and hands-on experience. These classes serve as a platform to meld industry and 21st-century skills to make learning fun and equip students with powerful experiences that prepare them for college and career. Robotics K-12 also increases student engagement and has elevated STEM awareness district-wide and within the community. Hesperia USD won CSBA's 2016 Golden Bell Award for its work on this initiative. For more information, visit http://bit.ly/2f9RDSt.

CSBA Publications Relevant to a Rigorous, Relevant, and Well-Rounded Curriculum

❖ English Learners in Focus, Issue 4: Expanding Bilingual Education in California after Proposition 58 (March 2017)

❖ Supporting the Next Generation Science Standards (November 2016)

❖ Research-Supported Strategies to Improve Accuracy and Fairness of Grades (July 2016)

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

❖ Math Misplacement (September 2015)

❖ Why Civic Learning is Critical (May 2015)

❖ A Governance Perspective: Interviews with School Board Members from the Nine Linked Learning Initiative School Districts (March 2014)

❖ The Linked Learning Approach to High School Reform (January 2014)

2 Academic Support to Improve Achievement

Description of Academic Support to Improve Achievement

It is not enough to offer students the opportunity to take rigorous and relevant coursework. Students also need a variety of supports (e.g., counseling, expanded learning time, tutoring, mentoring, and personalized learning strategies, among others) to succeed in their coursework. Academic support services can help students access content, continue to make progress, and make informed decisions about their education and potential careers. Due to a variety of school, home, and community circumstances, some students depend more on the education system for these resources. Understanding the supports that students need and providing them requires the time and training of administrators and other school staff including teachers, mentors, and counselors. Support can also include additional time outside of school. After-school programs, summer programs, and other opportunities can build on the concepts covered during the school day, and create relevance through hands-on and real-world experiences.

Research on Academic Support to Improve Achievement

Supports that guide students through their academic progression have been shown to improve outcomes. These supports can include practices such as pairing students with a knowledgeable adult, personalized learning opportunities, and tutoring programs. Anecdotal evidence indicates promise for advisory programs, in which regular meetings between an advisor and a student or group of students provides academic and social support.[32] Comprehensive strategies, such as providing students with personalized learning opportunities can give them freedom to select courses and make progress based on competencies, while also ensuring that academic counseling and supports are in place. A 2015 study by the RAND Corporation found that students in schools using personalized learning practices made greater progress over two years than their peers in schools not implementing such practices.[33] Other strategies, such as pairing students in response groups (in which one assumes the role of tutor and the other of tutee) have shown to have a positive effect on English language development for English learners.[34] A more recent meta-analysis of 101 studies found that among the many interventions provided to economically disadvantaged students, tutoring, feedback, and monitoring of academic progress, and cooperative learning with a peer, were all found to have a statistically significant impact on academic achievement.[35] Academic supports, specifically mentoring, tutoring, and additional time outside of school are also among the effective strategies for dropout prevention identified by the National Dropout Prevention Center/Network.[36]

Expanded learning time is another academic support that can have a positive impact on student achievement. According to the National Center on Time and Learning, "both research and practice indicate that adding time to the school day and/or year can have a meaningfully positive impact on student proficiency and, indeed, upon a child's entire educational experience."[37] Moreover, expanded learning time can be particularly helpful for English learners, who are challenged to simultaneously learn subject matter content and English. Additional learning time can also include activities outside of regular school hours, such as summer-learning and after-school programs. Summer is often a time of learning loss, particularly for economically disadvantaged students,[38] therefore, providing them with more learning opportunities during the summer months is one of the most effective ways to avoid this loss and enhance their academic progress.[39] One study of summer programs in third grade found that program participation was strongly associated with higher math achievement, and that participation for a second summer was associated with higher math and language arts achievement.[40] Another study evaluated STEM after-school programs, and found that youth who attended high-quality programs in middle school, improved their attitudes about STEM fields and careers, increased their knowledge and skills, and were more likely to graduate and pursue a STEM career.[41]

Evidence of Gaps in Access to Academic Support to Improve Achievement

According to 2014-15 data from the United States Department of Education, California employed 8,302 guidance counselors, creating a ratio of about 760 students per counselor (the second worst ratio in the country, just behind Arizona). This, combined with the fact that California continues to have the highest student-to-teacher ratio and the third highest student-to-total-staff ratio among all states, means that access to an adult who can provide guidance and support is seriously lacking for California students.[42]

A gap also exists in the supports that families can provide according to their income levels. For example, in the early 1970s, the wealthiest 20 percent of families spent about $3,000 more per child per year (in 2012 dollars) on enrichment activities than the poorest 20 percent. By 2006, this gap nearly tripled to $8,000 per child per year. This adds up to a $100,000 spending gap over the course of a child's primary and secondary school career.[43] This, along with access to parents who are college-educated and other enrichment experiences that greater resources facilitate, contributes to the opportunity gap and is something that schools and districts can address by providing more access to enrichment experiences and real-world opportunities for students to apply knowledge.

Examples of Programs That Provide Access to Academic Support to Improve Achievement

Heritage Plan (Riverside Unified School District). Riverside USD has invested in counselors and mentor teachers as an important support for academic success. According to data from the Riverside USD, far fewer of the district's African-American high school graduates met A-G requirements from 2013-15, when compared to other students. To address this gap, the district launched the Heritage Plan in 2013. As part of the program, mentor teachers at each high school recruit students in grades 10-12 and work closely with counselors who conduct regular reviews of the students' transcripts. Through this review, the counselors and teachers identify A-G courses still needed for college eligibility, monitor grade progress, and help students plan for college. Students are also provided with opportunities to visit nearby colleges and universities and receive help with all aspects of their college applications—from filling out financial aid forms to drafting their personal statements. Finally, through partnerships with CSU San Bernardino and UC Riverside's Early Academic Outreach Program, students are connected to on-campus and community supports. The program has led to considerable improvements in the number of African-American students who complete the A-G requirements. For more information, visit http://bit.ly/2pf86X3.

Intervention Specialists (Bakersfield Unified School District). Reducing the disproportionate suspension of African-American, Latino, foster youth, and students identified for special education services is a priority for districts within California. In direct response to this priority, Bakersfield USD implemented a positive behavioral intervention and supports (PBIS) system focused on students with a disproportionate number of office discipline referrals and suspensions. African-American students and students identified for special education services are two groups with a historically disproportionate number of suspensions in the district. Based on an analysis of student data, school-based intervention specialists work with the school PBIS team to provide differentiated interventions based on the needs of students. In addition, youth services specialists focus on African-American and foster youth students by providing mentoring and school social work services. These specialists also check in with students and their families regularly and connect them to school-based and community-based agencies and supports.

CSBA Publications Relevant to Academic Support to Improve Achievement

❖ Summer and STEAM Make an Ideal Match (November 2016)

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

❖ Supporting the Summer Learning Strategy to Boost Student Achievement (December 2015)

❖ Attendance Awareness Month (September 2014)

❖ The Case for Reducing Out-of-School Suspensions and Expulsions (April 2014)

❖ Building the Resiliency of At-Risk Students (April 2014)

3 Staff with the Skills, Competencies, and Knowledge to Promote Student Success

Description of Staff with the Skills, Competencies, and Knowledge to Promote Student Success

Access to staff—particularly teachers—with the necessary qualifications and preparation is fundamental to student success. Teachers have the most important in-school impact on student learning, and experienced teachers who have the skills and knowledge for working with the particular students they teach are the most effective at promoting their learning. This also means there is a need for a more diverse teacher pool that mirrors the backgrounds of California's students. Policies that support the placement of the best-prepared and experienced teachers with the highest-need students are also critical. This could include policies and incentives that encourage teachers, administrators, and other staff in high-poverty schools to stay in those schools longer.

To ensure that California teachers build the skills, competencies, and knowledge to meet the needs of the diverse students in their classrooms (including students identified for special education services and English learners), the education system must support teachers in building their capacity. This includes induction, mentorship, and professional development systems that provide teachers with sufficient time to collaborate and learn from each other; build cultural competencies and skills to understand the background of their students and families; form connections with outside groups to bring relevance to their lessons; and receive ongoing feedback to support their continuous improvement.

The role for principals and other school leaders is also critical to ensuring quality teachers. Principals and other administrators need preparation that is focused on instructional leadership, building a positive school climate, fostering student achievement, and supporting teachers and staff.

Research on Staff with the Skills, Competencies, and Knowledge to Promote Student Success

Research has shown that teachers are the most important in-school contributors to student achievement.[44] Additionally, the impact of quality teachers goes beyond academic achievement. One study found that students of effective teachers are more likely to attend college, attend higher-ranked colleges, earn higher salaries, and have lower rates of teen pregnancy.[45] While not all aspects of what makes a good teacher may be quantifiable, research does tell us that the quality of their undergraduate and preparation work has an impact on student learning. In addition, there is evidence that on average, students of teachers who have several years of classroom experience outperform students taught by beginning instructors.[46]

Additional research provides evidence that a cultural and linguistic match between teachers and their students can contribute to greater student success. Studies have shown that African-American and Latino students have greater academic achievement in classrooms taught by teachers from similar backgrounds. For example, a 2017 study of data from North Carolina and Tennessee found that for economically disadvantaged African-American male students, having at least one African-American teacher in elementary school reduced high school dropout rates by 39 percent and raised the probability of taking college entrance exams.[47] This can result from a number of factors, including how teachers from the same cultural background as their students serve as role models, make decisions about culturally relevant instruction, have a greater understanding of student behavior, are less likely to suspend or expel students, counteract negative expectations, and reinforce higher expectations for their students.[48] In addition, staff members who understand their students' backgrounds tend to view their languages, cultures, and experiences as assets rather than deficits, contributing to a positive school environment.[49] Research has also noted that students who report having supportive teachers feel more connected to school, describe a sense of belonging, and perform better on both academic and non-academic measures.[50]

Evidence of Gaps in Access to Staff with the Skills, Competencies, and Knowledge to Promote Student Success

Evidence indicates that students with the greatest need are more likely to be placed with the least-prepared teachers. High-poverty schools experience greater rates of teacher turnover, employ more underprepared and underqualified teachers (i.e., those without full certification or who are teaching in subject areas in which they are not certified), and experience higher rates of staff absenteeism—meaning that students spend more time in classrooms with substitute teachers. For example, during the 2000-01 teacher shortage in California, 22 percent of teachers in high-poverty schools were underprepared compared to 7 percent of teachers in wealthier schools.[51] This disparity has a disproportionate impact on students of color, English learners, and other at-risk students, since a higher proportion of these students are low income. Additionally, according to a recent report by the Learning Policy Institute and CSBA, teacher shortages were reported in 83 percent of California school districts serving the largest concentration of economically disadvantaged students, compared to 55 percent of school districts with the smallest percentages of economically disadvantaged students. The survey found similar trends when comparing school districts with the largest concentrations of English learners and the largest concentrations of students of color to those with the fewest.[52] The recent California educator equity plan also highlighted data showing that, in school districts with a higher proportion of students of color and economically disadvantaged students, students are more likely to be taught by an inexperienced (less than two years of experience), out of field, or intern teacher.[53]

Examples of Programs That Provide Access to Staff with the Skills, Competencies, and Knowledge to Promote Student Success

CSU Fresno Teacher Residency Program (FTRP) (Fresno Unified School District). Through a partnership with CSU Fresno, Fresno USD has taken proactive steps to recruit highly qualified teachers into the district through the FTRP. FTRP is a 15- to 18-month residency program that combines rigorous master's-level courses, credentialing coursework, and a yearlong apprenticeship in a classroom with a mentor teacher supported by a comprehensive professional development curriculum. Residents receive an $11,500 stipend during the training period and make a commitment to teach in the district for a minimum of three years after completing the program. Among other benefits, the program serves two important purposes. First, the district has used the partnership to train teachers in STEM subjects, the positions that are hardest to fill in many districts. In addition, the program has allowed the district to train future teachers to better support K-12 student achievement in STEM courses, which are critical for preparing students for work in the 21st century. For more information, visit http://bit.ly/2pf3no1.

CSU Chico Rural Teacher Residency (CRTR). The CRTR program bundles the master's degree in education with a multiple subject or education specialist preliminary credential. The CRTR is a comprehensive partnership between CSU Chico's School of Education and four high-need rural school districts in northern California designed to improve the preparation of new teachers, address the needs of rural schools, and improve student achievement. The program com-

bines classroom experience alongside trained mentor teachers with graduate coursework at CSU Chico and a support system of university faculty, school administrators, and other teacher candidates. Residents participate with cohorts of general and special education teacher residents to cultivate professional learning communities, collaboration, and promote school change. An induction program provides support for new teachers through their first two years of teaching. Residents are also placed in cohorts upon completion, facilitating professional collaboration and online professional development communities to provide continued support. For more information, visit http://www.csuchico.edu/soe/advanced/education/rtr/.

Research demonstrates the value of teacher residency programs. These programs have a high retention rate (80 percent of graduates are still teaching after three years and 70 percent after five years) and enroll significantly more diverse teachers (45 percent of residents identify as people of color) than the traditional teacher pool.[54]

Equity and Social Justice Initiative (Santa Rosa City Unified School District). The focus of the initiative is a change in policies, practices, and district climate to better serve Latino students and English learners. However, one of the key components of the initiative is training for staff and other stakeholders to learn about their own cultures, the cultures of their students, and the unconscious bias that may impede how they interact with and teach some students. As part of these trainings, staff share disaggregated student data and discuss the root causes of patterns. Based on these conversations, teachers are equipped with research-based practices for meeting the needs of Latino students and English learners and for closing the achievement gaps between these students and their peers. According to district officials, these trainings have served a critical purpose—they have changed the discussion from how students are underperforming to how adults may be unintentionally underserving students. Santa Rosa City USD won CSBA's 2016 Golden Bell Award for its work on this initiative.

CSBA Publications Relevant to Staff with the Skills, Competencies, and Knowledge to Promote Student Success

❖ English Learners in Focus, Issue 3: Ensuring High-Quality Staff for English Learners (July 2016)

❖ California Teacher Shortages: A Persistent Problem (November 2016). A report by CSBA and the Learning Policy Institute

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

❖ Improving Student Achievement Through Teacher Collaboration (November 2014)

❖ Understanding Teacher Burnout and its Negative Effects (April 2014)

4 Early Support and Services

Description of Early Support and Services

Evidence is growing for the importance of early learning opportunities including preschool, transitional kindergarten (TK), and kindergarten. Providing all children with access to high-quality early learning programs is one of the most important steps that can be taken to develop college and career readiness for all California students. The emphasis on quality is key—programs that meet the established California standards of quality for early childhood education are much more successful at promoting children's learning and development than those that do not meet these standards.

Research on Early Support and Services

There is strong evidence that investing in early childhood education improves student outcomes and is one of the most cost-effective uses of education resources. The benefits of early childhood education—along with broader benefits to society, such as reduced criminal activity and incarceration, and increased earnings in adulthood—add up to $8 in savings for every $1 invested.[55]

These investments can address knowledge gaps and prevent students from falling progressively further behind as they move through the grade levels. Quality preschool and other early education programs can help narrow the gaps seen among children early on.[56] Research shows that children who attend high-quality preschool enter kindergarten with significantly greater language, literacy, and mathematics skills.[57] Moreover, researchers studying New Jersey's exemplary Abbott preschools found that disadvantaged children who participated in two full years of pre-K had significantly higher vocabulary and math skills than non-participating children did.[58] The benefits of pre-K participation have been particularly strong for Latino children and children of immigrant parents.[59,60] Pre-K programs also help students develop the social and self-regulatory skills that are essential for success in school, such as interacting with teachers and peers in positive ways, solving problems with increasing independence, and learning to focus their attention.[61] TK, which unlike many preschool and pre-K programs, is part of the public school system, has also shown positive outcomes. A 2015 American Institutes for Research study found that children enrolled in TK, compared to those not enrolled:

❖ Were substantially better at identifying letters and words in kindergarten (a five-month learning advantage);

❖ Had stronger knowledge of basic mathematical concepts and symbols in kindergarten; and

❖ Had an advantage in executive function, including the ability to regulate their behavior, remember rules, and think flexibly.[62]

Participation in quality early learning programs also has other long-term benefits. For example, a child who does not participate in quality early childhood education, compared to a participating peer, is 40 percent more likely to become a teenage parent[63] and 70 percent more likely to commit a crime.[64] In a report focused on improving California's high school graduation rates, the authors found that one preschool program was associated with increased graduation rates of 11 percent and another of 19 percent.[65] In Chicago, researchers followed participants of the city's early childhood education program for 25 years and found that by age 28, the group that began preschool at age three or four had higher educational attainment levels and incomes, and lower substance abuse problems.[66]

Young learners who speak a language other than English at home can particularly benefit from programs that build both their primary and second language. Several studies have found that academic language skills developed in the first language form the foundation for the development of literacy in the second language.[67]

Evidence of Gaps in Access to Early Support and Services

Access to early learning opportunities has an impact on young learners early on. By age three, children from high-income families have double the vocabulary of same-age children from low-income families.[68] These gaps are exacerbated by lack of access to quality early education programs. Two in five children in California are not enrolled in preschool or kindergarten and economically disadvantaged children are the most limited in their access to quality programs.[69] Low-income families are more dependent on publicly funded programs, such as state-funded preschool, which only met four of ten preschool quality standards in California during the 2014-15 school year.[70] Access in rural areas is another challenge given the lower number of service providers in those communities. A coherent state plan and the expansion of TK, state preschool, and Head Start programs are critical strategies for filling in these gaps in the most remote communities.

Transitional Kindergarten in California

In 2010, through the Kindergarten Readiness Act, California added TK as the first year of a two-year district-run program. TK is available to students who turn five years old between September 2 and December 2 of the program year, filling the gap that might exist between preschool and kindergarten. The program also uses a modified kindergarten curriculum that is age and developmentally appropriate and taught by an appropriately credentialed teacher. Unlike preschool or child development programs, TK is part of the K-12 public school system by statute.

Examples of Programs That Provide Access to Early Support and Services

Preschool for All (City of San Francisco). To ensure that all students have the same opportunities for success in kindergarten and beyond, the city of San Francisco expanded its preschool program so that all four year olds are eligible for free enrollment. San Francisco's Preschool for All program is a full year longer than the California TK program. The purpose of Preschool for All is to provide high-quality early childhood learning for children in a safe, caring, and nurturing environment. Eligible preschool providers are located throughout San Francisco, including in many neighborhoods that had been previously underserved and which are home to a large proportion of economically disadvantaged African-American and Latino students. According to Education Trust-West's 2015 Black Minds Matter report, the program serves three-fourths of all four-year-olds in Bayview-Hunters Point, the neighborhood with the highest proportion of African-American students in the city.[71] Preschool for All complements the efforts of San Francisco Unified School Dis-

trict's Early Education Department, which provides pre-K, TK, and out of school time programs to over 4,500 children every year. Preschool for All is funded through Proposition H, a local initiative, and is one of the nation's first city-funded universal preschool programs. For more information visit http://bit.ly/2qy7orP.

Educare California (Franklin-McKinley Unified School District). In 2015, Educare California at Silicon Valley established an early learning center at Santee Elementary School in the Franklin-McKinley USD, where almost all of the students are low income and three-quarters are English learners. The early learning center has quickly become a showcase for best practices, and for what is possible elsewhere in the state. Now serving 170 children from birth to age five, the program also functions as a training and professional development institute for current and aspiring pre-K teachers and caregivers in the region. The aim of the program goes beyond kindergarten readiness as it seeks to narrow achievement gaps and break the cycle of poverty for the families that the center serves. The Educare early learning model features: 1) teacher professional development, 2) small classes led by teachers with bachelor's degrees and two assistants, 3) full-day, year-round learning focused on language and cognitive development, numeracy, the arts, and problem solving, 4) children staying with the same teacher and peer group for three years, and 5) specially trained parent educators to support family involvement. The public-private partnership is supported by a combination of federal, state, local, and philanthropic dollars, including Head Start, California State Preschool Program, and childcare and school district resources. For more information, visit http://educaresv.org.

Early Childhood Education Professional Learning Communities (Los Angeles COE). The Early Childhood Education Professional Learning Communities Project is a multi-year professional development project that is part of the Los Angeles COE's Early Care and Education Workforce Consortium funded by First 5 LA and Los Angeles Universal Preschool. The project provides elementary principals and TK teachers with professional development and technical assistance focused on the implementation of quality TK programs and the establishment of professional learning communities. It offers a model for collaboration among preschool educators and TK teachers to support the articulation and alignment of preschool through TK and beyond. The Los Angeles COE received CSBA's 2016 Golden Bell Award for its work on this project. For more information, visit http://bit.ly/2qGcxLs.

CSBA Publications Relevant to Early Support and Services

❖ What Boards of Education Can Do About Kindergarten Readiness (May 2016)

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

5 Education and Assistance for Families to Support and Guide Learning

Description of Education and Assistance for Families to Support and Guide Learning

Families are children's first and most important teachers and are essential to their success. As such, the education system should support parents and guardians in understanding their children's needs and best interests regarding courses and instructional supports from pre-K through grade 12. Parents and guardians need guidance in how to support their children's education at home, how to guide them through grade level and other transitions, and how to navigate important decisions such as the college admissions process and career choices.

Meaningful opportunities for parents and guardians to learn about and provide input into school decisions are also important to the school-community relationship and the overall climate of the school. These can include opportunities to hear about and provide feedback on school programs and plans, take on leadership roles, and participate in school events. It also includes learning opportunities for parents and guardians such as workshops on school-specific topics, as well as civic education, leadership training, English language classes, GED courses, and other opportunities.

It is critical for school districts and county offices of education to understand and acknowledge the differences in family backgrounds. Differences are due to a whole range of factors including ethnicity and culture, socioeconomic status (63 percent of California's K-12 students are economically disadvantaged[72]), and linguistic diversity (43 percent of students live in a household where a language other than English is spoken at home).[73] Parental education is another factor that differs among families. Parents with less experience with the education system because of their own schooling, or because they attended school in another country, will need more support for understanding how to make the system work best for their children than those who went to college or who attended school in the United States. Knowledge of these and other family factors can help school leaders successfully engage and support families.

School staff also play an important role in effective engagement of parents and guardians. School personnel, including administrators, support staff, and teachers, should be trained and supported to build meaningful connections. This can involve professional development on cultural relevance and extra time for teachers and counselors to engage parents and guardians at home or school. When possible, hiring more diverse school staff who have an understanding of and experience with the cultural backgrounds of students and their families can help—while only 24 percent of California public school students are white, nearly two-thirds of teachers (65 percent), administrators (61 percent), and student services staff (61 percent) are white.[74]

Research on Education and Assistance for Families to Support and Guide Learning

Studies have shown that students with parents who are engaged in their lives have better outcomes. A study of one California high school found that students with engaged parents—who monitored their activities, talked with them about their problems, encouraged individual decision-making, and were more involved in their school—were less likely to drop out of school.[75] Moreover, a 2005 meta-analysis of 77 studies found family and community engagement to be associated with higher student achievement outcomes.[76] Even as students get older and become more independent, the importance of parent and guardian engagement continues. According to a survey of high school dropouts, their reported parental involvement level was low.[77]

Initiatives to support parent and guardian engagement have also proven to be successful at improving student outcomes. For example, a 2015 study of the Family Engagement Partnership (based on the principles of the Parent-Teacher Home Visit Project), found that students whose families received a home visit had 24 percent fewer absences and were more likely to read at or above grade level compared to similar students whose families did not receive a visit.[78] Another 2014 evaluation of the Parent-Teacher Home Visit Project found that home visits improve relationships between teachers, families, and staff; and improve job satisfaction and classroom practice among teachers.[79]

Evidence of Gaps in Access to Education and Assistance for Families to Support and Guide Learning

All parents or guardians care about their children's education. Nonetheless, parents with extensive education themselves understand the system better, know what needs to be done in preparation for college, and most often have professional jobs that allow them the time and financial resources to invest in trips, learning experiences, and supports such as tutoring for their children. All of this contributes to a positive association between student achievement and parents' level of education. For example, according to the 2016 Smarter Balanced Assessment results, the percentage of students that met or exceeded grade level standards increases as parental education levels increase.[80] Gaps are also associated with income status (which is itself strongly associated with education level), neighborhood characteristics, and the whole range of opportunities that come with greater education and income. As stated earlier, it falls to schools to provide students with access to fewer resources with some of the opportunities their better-off peers have at home or in their communities. Moreover, while community engagement is one of the Local Control and Accountability Plan (LCAP) requirements and some school districts and county offices of education are doing more to engage parents and guardians, additional funding can help cast a wider net and bring more families into the fold to help them understand how to support their students' learning.

Examples of Programs That Provide Education and Assistance for Families to Support and Guide Learning

The Parent Teacher Home Visit Project (Sacramento City Unified School District). This initiative brings school staff and parents together to build trust, instill cultural competency, and increase capacity to support students. Teachers conduct home visits to meet with parents, reinforce the importance of the parents as their child's first and most important teacher, and share information about school programs. Initial visits are followed by the establishment of Academic Parent Teacher Teams, which bring parents to their child's classroom once every other month to learn activities that are adapted to their child's specific needs, practice how to use these activities at home, and review individual student data on how their child is progressing. A national study of the project found that home visits improve student learning, increase parent involvement, facilitate the use of culturally responsive strategies, improve teacher-parent and teacher-student relationships, and promote trust and a sense of self-efficacy for teachers, parents, and students. For more information, visit http://www.pthvp.org/what-we-do/results/i-research/.

Saturday School: Student and Parent Engagement Program (Alhambra Unified School District). This program is a multilingual, bi-weekly, three-hour comprehensive Saturday school. The program creatively re-engages and supports students and parents in middle school and high school who have missed instructional time due to excessive absenteeism,

negative behaviors, or who need social-emotional support to succeed in school. The program's facilitators address school re-engagement and school-to-home connectedness while adhering to a tiered intervention approach. More than 600 students and parents have participated in the program, resulting in a 73 percent increase in parent and student re-engagement in school (as indicated in the Local Climate Survey administered by the district). Alhambra USD received CSBA's 2016 Golden Bell Award for its work on this program.

Parent University (Natomas Unified School District). Implemented in November 2012 at a single school site, Parent University is now a district-wide program coordinated by a dedicated staff member. The purpose of this program is to support all families in the district by making information easily accessible through a central hub and providing ongoing workshops on a range of topics including college enrollment requirements, parenting skills, social-emotional learning, substance abuse, and others of relevance to families. Over the course of a year, the program puts together over 20 classes for parents. Depending on the topic, the program partners with teachers, counselors, psychologists, and other external organizations to deliver engaging content. For example, for its Roadmap to Higher Education workshops (focused on learning about and helping students meet college requirements), the district partners with high school counselors and the UC Davis Early Academic Outreach program. For its 10-week class on strengthening families, the district partners with the National Council on Alcohol and Drug Dependency to deliver content focused on drug abuse and communication skills (students and parents take these classes together). While classes are targeted for parents, they are open to school staff and other community members. Information about opportunities is communicated through emails, phone calls, fliers, and parent advocates. All classes are translated into Spanish while other language translations are provided upon request. The program also partners with the district's Adult Education office to connect parents with classes in English, computer literacy, citizenship, and other topics. Since its inception, the program has served over 400 families. For more information, visit https://natomasunified.org/parent-university/.

CSBA Publications Relevant to Education and Assistance for Families to Support and Guide Learning

❖ Defining Governance, Issue 5: Engaging the Community (July 2014)

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

6 Physical, Mental, and Environmental Health Supports

Description of Physical, Mental, and Environmental Health Supports

While the ultimate goal of schooling is that all students graduate career and college ready, that readiness encompasses more than strictly academic skills and requires that the education system attend to more than just students' cognitive capacity. If children are hungry, traumatized, or in pain, they will not be able to learn, and in fact, may well be absent from school. If children cannot regulate their emotions, address challenges productively, or cooperate with their peers and their teachers, they will likewise have difficulty benefitting from instruction, no matter how engaging that instruction might be. Furthermore, if the school environment is not healthy and safe, then it is not a hospitable environment for learning. Providing students with opportunities for play and physical activity at school and encouraging healthy lifestyle habits also supports academic success.

Research on Physical, Mental, and Environmental Health Supports

An active lifestyle is essential to improving the health of California students. Research indicates the importance of school environments that support and encourage opportunities for movement throughout the day. A 2010 report from the Centers for Disease Control and Prevention showed that when children are more active, their classroom behavior and ability to focus on schoolwork improve.[81] These findings were reinforced by another study that found that implementing physical activity breaks is associated with improved classroom behavior.[82] Experts recommend that students have at least 60 minutes of physical activity daily.[83]

Safety is another issue that has an impact on student outcomes. For example, multiple studies have shown that children who have experienced trauma have significantly lower test scores and are more likely to need special education services.[84] School bullying is associated with trauma and has a documented negative impact on student learning—a meta-analysis (of 33 studies and 29,552 participants) found that school bullying was correlated with lower academic achievement.[85] Another study of middle school students found that bullying was associated with lower grades across the three years of middle school, including a 1.5-point decrease in GPA for math.[86]

Supporting students in developing social-emotional learning (SEL) skills is also essential to their short- and long-term success. According to the Collaborative for Academic, Social, and Emotional Learning, "SEL is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions."[87] A meta-analysis (of 213 studies involving 270,034 children) found that SEL participants showed an 11-percentile point gain in academic achievement, and significantly improved social-emotional skills, attitudes, and behavior, when compared to non-SEL participants.[88] A more recent study from 2015 found statisti-

cally significant associations between SEL skills in kindergarten and key outcomes years later in education, employment, criminal activity, substance use, and mental health.[89]

The importance of SEL skills is also highlighted in research on the prevalence of bullying and stress in school. The Centers for Disease Control and Prevention (CDC) found in a 2013 national survey that 20 percent of high school students were bullied on school grounds and 15 percent reported some form of electronic bullying.[90] The 2013-15 California Healthy Kids Survey revealed that 39 percent of seventh graders and 31 percent of 11th graders experienced taunting about their looks or how they talk.[91] Lesbian, gay, bisexual, and transgender (LGBT) students are at particularly high risk of being bullied. According to a Gay, Lesbian and Straight Education Network survey, 85 percent of LGBT students experienced verbal harassment, 35 percent experienced physical harassment, and 74 percent reported feeling unsafe at school.[92]

Evidence of Gaps in Access to Physical, Mental, and Environmental Health Supports

More than 30 percent of California 10-17 year olds are overweight or obese,[93] a condition that is correlated with student absence from school.[94] According to the 2015-16 California physical fitness tests results, only 26 percent of fifth graders, 32 percent of seventh graders, and 37 percent of ninth graders met healthy fitness standards in all tested areas. Even more striking are the differences in these results for economically disadvantaged students and students of color. For example, among tested fifth graders, healthy fitness standards were met by only 19 percent of economically disadvantaged students (compared to 37 percent for non-economically disadvantaged students), 23 percent of African-American students, and 19 percent of Latino students (compared to 36 percent of white students).[95]

These poor health outcomes can be partially explained by the conditions of neighborhoods in which low-income families often live. Low-income families are less likely to have access to supermarkets that sell fresh and other nutritious food,[96,97] and to parks, programs, or facilities that promote active living.[98] In addition, low-income families are more likely to live in inadequate housing that exposes them to indoor pollutants and to live near highways, factories, or other sources of air and water pollution.[99,100]

These conditions lead to other poor health outcomes for economically disadvantaged children, including higher rates of asthma, heart conditions, hearing problems, digestive disorders, and elevated levels of lead in the blood.[101] In 2006–08, 12 percent of poor children overall and 23 percent of poor Latino children had asthma, compared to 8 percent of non-poor children.[102] Children in poverty are also more likely to suffer from depression, anxiety, and stress. Unfortunately, these students that need healthcare the most, also have lower levels of health insurance and access to quality health services.[103]

Examples of Programs That Provide Physical, Mental, and Environmental Health Supports

Healthy Students, Healthy Outcomes (Ceres Unified School District). The Ceres USD recognizes that for students to be academically successful, it must attend to their social-emotional and physical wellness. Located in the San Joaquin Valley, nearly three-quarters of the students served by the district are economically disadvantaged and one-quarter are English learners. Therefore, the district leveraged its LCFF supplemental and concentration funds to prioritize the needs of the whole child through a tiered-model of expanded mental health services focused on prevention and intervention. Teams of mental health professionals, student support specialists, community liaisons, teachers and administrators, working in collaboration with community agencies, have increased the breadth of services provided and have expanded access to services. Moreover, the district has worked to increase the responsiveness of intervention services, so that students and their families do not have to wait for support once an issue is identified. These services support the social, emotional, behavioral, physical, and academic needs of students. For more information, visit http://bit.ly/2q5rc5M.

Behavioral Coaches (Modesto City Schools). Some students enter the classroom with high levels of stress and trauma, which can lead to behavioral issues. Teachers, who are often the first to respond to behavior issues, can better support students when they can draw on a range of strategies to address classroom disruptions. To assist teachers in this work, the Modesto City Schools invested in behavioral coaches during the 2015-16 school year. The target population is students who have not responded to earlier interventions from staff and are causing behavioral disruptions that affect their learning or the learning of others. At the teacher's request, behavioral coaches support teachers in grades K-12 (with a K-6 emphasis). Teacher coaching sessions include observations, modeling, and a reflective component that occurs after each session. The coach provides support through observation and coaching in the classroom, assisting with classroom management, and the provision of strategies to support at-risk students with behavioral challenges. Behavioral coaches also give presentations on classroom management and behavioral challenges, and help plan lessons with a focus on differentiated instruction and universal design for learning. The district has seen the benefit of their investment through high rates of site and teacher satisfaction. Demand for behavioral coaches is also high, as indicated by a waiting list for their services.

CSBA Publications Relevant to Physical, Mental, and Environmental Health Supports

- ❖ Integrating Physical Activity into the School Day (April 2016)

- ❖ Concussions in Student Athletes and How to Reduce Risk (January 2016)

- ❖ Recent Legislation on Vaccines: SB 277 (January 2016)

- ❖ Drinking Water Access in Schools (April 2015)

- ❖ Recent Legislation on Discipline: AB 420 (March 2015)

- ❖ Creating Hunger-Free Schools Through the Community Eligibility Provision (March 2015)

- ❖ Measles (and Other Infectious Diseases) (March 2015)

- ❖ Promoting Healthy Relationships for Adolescents: Board Policy Considerations (August 2014)

- ❖ Starting a Breakfast After the Bell Program (August 2014)

- ❖ Recent Legislation on Cyberbullying: AB 256 (April 2014)

- ❖ The Case for Reducing Out-of-School Suspensions and Expulsions (April 2014)

- ❖ Building the Resiliency of At-Risk Students (April 2014)

- ❖ Physical Education: A Slow Start to a Promising Educational Boost (March 2014)

- ❖ California School Shootings: The Brutal Facts (July 2013)

- ❖ Addressing the Conditions of Children: Focus on Bullying (December 2012)

7 21st-Century Infrastructure and Technology

Description of 21st-Century Infrastructure and Technology

All students should have access to schools with a 21st-century infrastructure that includes quality facilities with features such as classrooms, laboratories, fields, gardens, and food preparation space. These facilities are essential to students' learning as well as to their health and safety. Such facilities enhance learning through opportunities to conduct experiments, participate in physical activities, and learn about food preparation, among other activities.

State-of-the-art technology platforms are also critical to 21st-century infrastructure. Students and families should have access to the internet in and around school, and many students need additional supports to close the digital divide. A technology platform should also include a robust data infrastructure with quality hardware, software, and trained staff to support technology-related instruction as well as the analysis, storage of data, and deployment of high-quality assessments.

Finally, students need to be able to get to school as easily and safely as possible. When schools are not close enough for easy access, quality transportation options and safe routes to school should be provided.

Research on 21st-Century Infrastructure and Technology

Currently, not all public school students in California have access to quality facilities with 21st-century infrastructure. According to a survey by the United States Department of Education, over half of America's public schools need to be repaired, renovated, or modernized.[104] Access to basics, such as safe drinking water, safe walking routes to school, and green spaces can further improve student outcomes. For example, safe and adequate water consumption has been associated with stronger student achievement.[105] Moreover, the implementation of the California State Standards, including the implementation of the Next Generation Science Standards (NGSS) and expansion of Career and Technical Education Programs, Career Academies, Career Pathways, Linked Learning, and other innovative approaches, will require schools to go beyond the basics of infrastructure. Quality lab spaces, equipment, technology, and more will be required to develop school infrastructure that truly supports the ingredients in this report.

Evidence of Gaps in Access to 21st-Century Infrastructure and Technology

Low-income areas typically have more outdated infrastructure, both inside and outside of schools. Moreover, a higher percentage of public schools in low-income areas are in need of repair than those in wealthier communities.[106] Part of the reason for this is that state funding for schools in California does not completely equalize for resources provided in wealthier areas (through property taxes, bonds, and other methods of raising local revenue).

The digital divide, a gap between those students who have stable access to computers and the internet and those who do not, also contributes to the opportunity gap in infrastructure. According to 2016 data from the Pew Research Center, 89 percent of people in households making less than $30,000 a year use the internet, compared to 95 percent of those making $50,000-74,999; and 81 percent of people in rural communities use the internet, compared to 89 percent in urban and 90 percent in suburban communities. However, this divide is wider with regard to households with broadband internet at home—only 53 percent of households making less than $30,000 a year have broadband internet at home, compared to 83 percent of families making $50,000-74,999; and 63 percent of households in rural communities have it, compared to 73 percent in urban and 76 percent in suburban communities.[107] This data makes it clear that there is both a digital divide that adversely affects low-income and rural families, and that for those in these communities that use the internet, access in schools and other public spaces is even more critical given the divide in access to broadband internet at home.

Within schools, obstacles to technology use also arise based on income level. According to a 2012 study by the Pew Research Center, teachers in schools with a large concentration of economically disadvantaged students reported more obstacles to using educational technology effectively than their peers in wealthier schools. Only half of teachers in low-income areas said their school provided good support for incorporating technology into the classroom, compared to 70 percent of teachers in higher-income areas.[108]

Other infrastructure issues also arise that impact the health of students in and outside of school. For example, while adequate water consumption has been associated with a number of health benefits and stronger student achievement,[109] aging lead water pipes are much more common in the lowest-income neighborhoods or cities.[110]

Examples of Programs That Provide 21st-Century Infrastructure and Technology

Busing in WiFi (Coachella Valley Unified School District). To address the digital divide, in 2013-14 the Coachella Valley USD rolled out a learning technology initiative, the "Digital Promise," that equipped all students from pre-K through high school with an iPad device. The district also upgraded their digital infrastructure by adding more internet access points and increasing internet bandwidth. The initiative was funded through a $42 million technology bond. However, in a high-poverty district such as the Coachella Valley USD, simply providing students with devices and internet access at school was not enough, as students still lacked home access to the internet. Therefore, the district also placed WiFi routers on the top of two school buses as mobile hotspots to provide connectivity to students when they are out of school. This allows students to connect to the internet on their way to and from school and while traveling to field trips and sporting events. In addition, the buses park overnight at sites throughout the district to provide WiFi access to students, allowing them to use their devices at home to work on assignments. The district plans to expand the program and turn another 90 buses into hotspots. The United States Department of Education suggests that districts interested in using this model for expanding access to home connectivity consider putting solar panels on top of the buses to allow for power throughout the night, and that districts work with private landowners to determine where to park the buses at night. For more information, visit http://digitalpromise.org/district/coachella-valley/ and https://tech.ed.gov/stories/busing-in-wifi/.

Future Ready Learning Initiative (Union Elementary School District). Over the last three years, Union ESD in Santa Clara County has successfully integrated educational technology into classroom instruction. With the support of the school board, the district's Future Ready Learning Initiative provides a Chromebook laptop to students, giving them access to the internet and all the learning opportunities that is has to offer. This allows students to expand learning beyond the walls of the classroom, become more fluent in technology, and learn about what it means to be a digital citizen. This initiative is also an opportunity for parents to learn about internet safety. The district has developed a rigorous and intensive professional development program for teachers to ensure that they have the skills needed to teach students how to use the device to its fullest potential. By allowing students to have a personalized learning experience, their engagement in school has increased, leading to better outcomes in math and English language arts. Union ESD was awarded CSBA's 2016 CSBA Golden Bell Award for its work on this initiative. For more information, visit http://futureready.unionsd.org/.

CSBA Publications Relevant to 21st-Century Infrastructure and Technology

❖ Creating a Facilities Master Plan, Part I: Comprehensive Demographic Studies and Enrollment Projections (March 2017)

❖ Creating a Facilities Master Plan, Part II: Critical Elements of a Facilities Needs Assessment for Existing Facilities (March 2017)

❖ District Funding for School Crossing Guards (September 2015)

❖ Drinking Water Access in Schools (April 2015)

❖ Special Education Pupil Transportation: Considerations in the Era of LCFF (April 2014)

❖ Common Core Testing: The Smarter Balanced Assessment (March 2014)

❖ Key Considerations for Implementing a Blended Learning Program (January 2014)

❖ Common Core: Technology Considerations (November 2013)

❖ Bond Sales: Questions and Considerations for Districts (December 2012)

8 Services for Students with Specific Needs

Description of Services for Students with Specific Needs

While every ingredient in this report is a critical component of serving all student groups, district leaders and educators need to differentiate implementation of these ingredients to meet the specific needs of all students. Student groups such as English learners, students identified for special education services, foster youth, homeless students, and others need targeted support if we are to truly close opportunity gaps. For example, in the case of English learner and students identified for special education services, the district and school procedures for identification should be robust enough to result in proper placement of students in learning environments that can best meet their needs. Support systems should also meet the needs of foster youth, students experiencing homelessness, and others. Recruiting, training, and supporting staff who can identify students' needs and understand the most appropriate assessment and instructional strategies for specific student groups is highly important.

Unfortunately, current approaches are not meeting the mark when it comes to providing all student groups with an effective education, as evidenced by significant gaps in both academic achievement and graduation rates.

Research on Services for Students with Specific Needs

Despite the gaps and challenges, there is sufficient evidence that students with specific needs can achieve when the services they need are in place. This evidence comes from research cited in the previous seven sections, along with the following specific strategies for English learners, students identified for special education services, and foster youth.

❖ **English learners.** Evidence from multiple programs shows that when English learners' home language is leveraged as an asset, they are provided with rigorous courses, and are integrated within the school, they can reach levels of academic achievement on par with or greater than their non-English learner peers. For example, a national study of bilingual education programs found that participating English learners outperformed their peers in English-only programs in both English literacy and achievement in academic core courses.[111] Two recent studies from a large, diverse, urban California school district found that English learners in dual-language programs have better long-term outcomes than their peers in English immersion programs.[112,113] Rigorous coursework and more opportunities to be in classrooms with their English-fluent peers can also benefit English learners. For example, a 2017 report by Education Trust-West highlighted the benefits of providing English learners with science instruction to both their science achievement and language learning. The report noted that science investigations provide English learners with language practice and opportunities to develop academic vocabulary skills.[114]

❖ **Students identified for special education services.** Research has shown that well-timed and well-executed early interventions reduce the number of students with learning disabilities and improve school outcomes for everyone.[115,116] Ensuring appropriate monitoring and placement of students identified for special education services throughout their K-12 years is also critical. Strategies, such as response to intervention (where a set of interventions help a student master a skill and more targeted interventions are applied if necessary) have shown to improve student achievement.[117]

❖ **Foster youth.** Foster youth can achieve when schools support their specific needs. Much of the research has pointed to the important role of social support, which can include connections with peers and adults to help instill acceptance, self-confidence, and understanding, and to provide guidance through practical matters, such as financial aid and other resources. This type of support improves the confidence and sense of purpose of foster youth, which improves persistence and success in school.[118] In addition, former foster youth who are now enrolled in college indicate that social support was critical to their academic achievement.[119,120] Research also identifies other factors such as participation in school and community activities as supportive to their engagement.[121] Training on independent living can also benefit foster youth—independent living programs provide participants with more access to educational supports, such as tutoring, financial aid help, and building social-emotional skills. Another study found that foster youth who received consistent independent living training were almost three times more likely to graduate from high school than students who did not receive this support.[122]

Students Identified for Special Education Services are Being Shortchanged by State and Federal Funding

Federal and state funding levels for special education services continue to shortchange students, leaving both their families and schools in a bind. Forty years ago, when the Individuals with Disabilities Education Act (IDEA) was signed, Congress promised to fund 40 percent of the state costs of providing educational services to students with disabilities. However, even as the share of total school district per student expenditures for special education services has increased, the federal government has fallen far short of its commitment, funding it at about 10 percent according to the most recent data. In addition, the state provides categorical funding that is supposed to grow annually by a Cost of Living Adjustment (COLA), which is not always included in the budget. State and federal funding has also failed to keep pace with the number of students identified for special education services that require more resources, such as students with autism.[123] For example, during the 2005-06 school year, five percent of California special education students were identified with autism, compared to 13 percent during the 2015-16 school year. This means that the number of students with autism nearly tripled, from 34,668 to 97,162 students, in just 10 years.[124]

Examples of Programs That Provide Services for Students with Specific Needs

Dual Immersion Program (Gilroy Unified School District). Gilroy USD is one of only five districts in the state with a dual language program that spans K-12, and was among the early adopters of this learning model.[125] Started in 2008, the purpose of the dual immersion program is for students to develop bilingualism and biliteracy in English and a second language, increase academic achievement in English and Spanish, and increase awareness of other cultures. Participation in a dual immersion program can also encourage critical and creative thinking, increase future job opportunities, and fulfill the language requirements for high school and university. The district uses a 50:50 model where English is used for half of the school day and Spanish is used for the other half of the school day. Accordingly, students are assigned to an English-speaking teacher and a Spanish-speaking teacher. While each teaches exclusively in one language, the teachers work together to deliver a unified curriculum. The district has also organized the classrooms to include one-third Spanish speaking, one-third English speaking, and one-third bilingual students. The mixed-language class composition encourages students to help each other speak, read, write, and understand both languages. The program is strengthened by ongoing technical support from the Center for Applied Linguistics, the use of data to inform instruction and address students' needs, and a strong focus on parent involvement. Gilroy USD was awarded CSBA's 2015 Golden Bell Award for its work on this program. Moreover, one of the district schools, Las Animas Elementary School, also received the California Association of Bilingual Educators' Seal of Excellence for their dual immersion program. For more information, visit http://gusd.ca.schoolloop.com/cms/page_view?d=x&piid=&vpid=1435566172800.

Foster Youth Support (San Diego Unified School District). Recognizing the significant challenges facing students in foster care, the California legislature (through the LCFF) elevated attention to serving foster youth. Accordingly, districts across California are using their LCAPs to outline how they will use LCFF funds to meet the needs of students in foster care through district programs and initiatives. San Diego USD has used their LCAP to demonstrate commitment to students in foster care. The district's LCAP outlines the following investments in education for students in foster care:

❖ Resource teachers to monitor academic progress, attendance, and behavioral data for foster and homeless students. These resource teachers use student data to develop a tiered system of support and resources for foster youth at school sites.

❖ A Children and Youth in Transition (CYT) resource teacher to coordinate and collaborate with area superintendents, support departments, and school sites to develop tiered interventions, and to address safety, attendance, basic needs, and barriers to a student's education.

❖ Mentor teachers that are in each of the district's five high schools and are paired with at-risk youth identified as homeless and foster. Mentor teachers monitor attendance, behavior, school performance, and progress toward graduation.

The district budgeted a combined total of $1.1 billion in LCFF supplemental and concentration funds and Title I funds to support this work in its 2016-17 LCAP. For more information visit http://bit.ly/2qFjrkh.

Social Communication Program (Las Virgenes Unified School District). The Las Virgenes USD in Los Angeles County created the Social Communication Program to meet the needs of students that need extra support in the areas of social, communication, and learning skills. The program includes a research-based behavior intervention model and 60 minutes of daily intensive social skills instruction for students with an Individualized Education Program. The structure and support of this program is provided throughout the school day. Students receive additional adult assistance in their general education classroom to help monitor their social behaviors and learn skills. Reinforcement is embedded throughout the day through token economies

or self-evaluation sheets. Students "cash out" every hour, two hours, or once a day based on their needs. Las Virgenes USD received CSBA's 2016 Golden Bell Award for its work on this program. For more information, visit http://www.theacorn.com/news/2016-11-10/Schools/District_rings_in_the_Golden_Bell_Award.html.

The Ascend Academy (Southern Kern Unified School District). The Ascend Academy provides placements for students who are diagnosed or assessed with behaviors that prevent them from being successful in a comprehensive school environment. The program works with students to focus on controlling these behaviors in a school and group setting while also working on grade level curriculum. The program is based on a positive behavior intervention system (PBIS) where staff reaches beyond students' external behaviors and creates an identifiable connection between student learning outcomes and positive behavior. The Ascend Academy is a specialized support system in which staff, technology, curriculum, culture, physical environment, and teaching methods are all focused on achieving what could not be accomplished in a regular or special education classroom. Southern Kern USD received CSBA's 2016 Golden Bell Award for their efforts in this program. For more information, visit http://www.skusd.k12.ca.us/Page/496.

CSBA Publications Relevant to Services for Students with Specific Needs

❖ **English Learners in Focus**

  » Issue 1: Updated Demographic and Achievement Profile of California's English Learners (September 2016)

  » Issue 2: The Promise of Two-Way-Immersion Programs (September 2014)

  » Issue 3: Ensuring High-Quality Staff for English Learners (July 2016)

  » Issue 4: Expanding Bilingual Education in California after Proposition 58 (March 2017)

❖ **Foster Youth**

  » Foster Youth: Supports for Success (May 2016)

  » Our Foster Youth: What School Boards Can Do (May 2016)

  » Video: Not Invisible (May 2016)

  » Video: What Boards Can Do (May 2016)

  » Video: Not Alone (May 2016)

❖ Special Education Pupil Transportation: Considerations in the Era of LCFF (April 2014)

❖ Children and Youth Experiencing Homelessness (December 2013)

Conclusion

A public education system that provides free, quality, and appropriate schooling to all students is essential to a strong democratic society. It is equally important that this system have the necessary resources to ensure that all students can succeed and that these resources are distributed equitably in order to provide meaningful opportunity for all students.

This report has focused on the opportunities for access to the key ingredients of a 21st-century education that all students need to succeed and that an adequately funded education system in California would provide. Along with *California's Challenge: Adequately Funding Education in the 21st Century*, these reports show how far our public education system has still to go to ensure that all students have the opportunity to graduate from high school ready for college and career success. These reports have highlighted:

1. California's relatively low level of education funding as compared to other states;

2. The key opportunities for student success that can be available under an adequately funded education system;

3. The opportunity gaps between students from more and less affluent communities and homes that result from lack of investment, and the achievement gaps that are a consequence of opportunity gaps.

CSBA members understand the need to invest in the opportunities described in this report and to make these investments according to students' needs. Through a CSBA survey, board members most often indicated that they had spent LCFF funds to date on student supports including additional assistance for struggling students and key personnel such as counselors. They also indicated that if given additional funds, they would most often continue to invest in student supports and on broadening and enriching the curriculum.

The gaps in funding, opportunity, and achievement emphasize the urgent need in California to invest in our most precious resource—the young people who represent our future. While the LCFF stressed the important role of local communities in education decisions, and required greater spending equity, it did not provide more funding for California schools—when considering pre-recession levels and accounting for inflation and mounting fixed costs, such as school district pension obligations. Until that fundamental deficit is addressed, many students and their families will be missing the opportunities gained from participating in the ingredients highlighted in this report, and closing achievement gaps will be an uphill battle.

CSBA believes strongly that a free public education system which creates the opportunities that every child needs to succeed is essential to our prosperity, and CSBA will continue to advocate for adequate funding that supports these opportunities. CSBA understands that lack of adequate funding is not an excuse for not making improvements with the resources available. However, California will not achieve the vision of an education system in which all students have the opportunity for college and career success until the investment in public education through state funding is increased substantially.

Appendix

Summary of CSBA Resources

A Rigorous, Relevant, and Well-Rounded Curriculum

❖ English Learners in Focus, Issue 4: Expanding Bilingual Education in California after Proposition 58 (March 2017)

❖ Supporting the Next Generation Science Standards (November 2016)

❖ Research-Supported Strategies to Improve Accuracy and Fairness of Grades (July 2016)

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

❖ Math Misplacement (September 2015)

❖ Why Civic Learning is Critical (May 2015)

❖ A Governance Perspective: Interviews with School Board Members from the Nine Linked Learning Initiative School Districts (March 2014)

❖ The Linked Learning Approach to High School Reform (January 2014)

Academic Support to Improve Achievement

❖ Summer and STEAM Make an Ideal Match (November 2016)

❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

❖ Supporting the Summer Learning Strategy to Boost Student Achievement (December 2015)

❖ Attendance Awareness Month (September 2014)

❖ The Case for Reducing Out-of-School Suspensions and Expulsions (April 2014)

❖ Building the Resiliency of At-Risk Students (April 2014)

Staff with the Skills, Competencies, and Knowledge to Promote Student Success

❖ English Learners in Focus, Issue 3: Ensuring High-Quality Staff for English Learners (July 2016)

❖ California Teacher Shortages: A Persistent Problem (November 2016). A report by CSBA and the Learning Policy Institute

- ❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

- ❖ Improving Student Achievement Through Teacher Collaboration (November 2014)

- ❖ Understanding Teacher Burnout and its Negative Effects (April 2014)

Early Support and Services

- ❖ What Boards of Education Can do About Kindergarten Readiness (May 2016)

- ❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

Education and Assistance for Families to Support and Guide Learning

- ❖ Defining Governance, Issue 5: Engaging the Community (July 2014)

- ❖ African-American Students in Focus, Issue 2: Closing Opportunity and Achievement Gaps for African-American Students (April 2016)

Physical, Mental, and Environmental Health Supports

- ❖ Integrating Physical Activity into the School Day (April 2016)

- ❖ Concussions in Student Athletes and How to Reduce Risk (January 2016)

- ❖ Recent Legislation on Vaccines: SB 277 (January 2016)

- ❖ Drinking Water Access in Schools (April 2015)

- ❖ Recent Legislation on Discipline: AB 420 (March 2015)

- ❖ Creating Hunger-Free Schools Through the Community Eligibility Provision (March 2015)

- ❖ Measles (and Other Infectious Diseases) (March 2015)

- ❖ Promoting Healthy Relationships for Adolescents: Board Policy Considerations (August 2014)

- ❖ Starting a Breakfast After the Bell Program (August 2014)

- ❖ Recent Legislation on Cyberbullying: AB 256 (April 2014)

- ❖ The Case for Reducing Out-of-School Suspensions and Expulsions (April 2014)

- ❖ Building the Resiliency of At-Risk Students (April 2014)

- ❖ Physical Education: A Slow Start to a Promising Educational Boost (March 2014)

❖ California School Shootings: The Brutal Facts (July 2013)

❖ Addressing the Conditions of Children: Focus on Bullying (December 2012)

21st-Century Infrastructure and Technology

❖ Creating a Facilities Master Plan, Part I: Comprehensive Demographic Studies and Enrollment Projections (March 2017)

❖ Creating a Facilities Master Plan, Part II: Critical Elements of a Facilities Needs Assessment for Existing Facilities (March 2017)

❖ District Funding for School Crossing Guards (September 2015)

❖ Drinking Water Access in Schools (April 2015)

❖ Special Education Pupil Transportation: Considerations in the Era of LCFF (April 2014)

❖ Common Core Testing: The Smarter Balanced Assessment (March 2014)

❖ Key Considerations for Implementing a Blended Learning Program (January 2014)

❖ Common Core: Technology Considerations (November 2013)

❖ Bond Sales: Questions and Considerations for Districts (December 2012)

Services for Students with Specific Needs

❖ English Learners in Focus

» Issue 1: Updated Demographic and Achievement Profile of California's English Learners (September 2016)

» Issue 2: The Promise of Two-Way-Immersion Programs (September 2014)

» Issue 3: Ensuring High-Quality Staff for English Learners (July 2016)

» Issue 4: Expanding Bilingual Education in California after Proposition 58 (March 2017)

❖ Foster Youth

» Foster Youth: Supports for Success (May 2016)

» Our Foster Youth: What School Boards Can Do (May 2016)

» Video: Not Invisible (May 2016)

» Video: What Boards Can Do (May 2016)

» Video: Not Alone (May 2016)

❖ Special Education Pupil Transportation: Considerations in the Era of LCFF (April 2014)

❖ Children and Youth Experiencing Homelessness (December 2013)

Funding and Adequacy

❖ California's Challenge: Adequately Funding Education in the 21st Century (November 2015). A report by the CSBA's Education Legal Alliance Adequacy Committee.

Additional Resources Supporting Student Achievement

❖ The School Board Role in Creating the Conditions for Student Achievement: A Review of the Research (May 2017)

❖ Promising Practices for Developing and Implementing LCAPs (November 2016)

❖ LCFF Rubrics, Issue 1: What Boards Need to Know About the New Rubrics (October 2016)

❖ 2015-16 California CAASPP Results for Mathematics and English Language Arts (September 2016)

❖ Climate for Achievement
   » Issue 1: How Research Defines School Climate (March 2015)
   » Issue 2: Why School Climate Matters (April 2015)
   » Issue 3: Measuring School Climate (June 2015)
   » Issue 4: How Boards Change School Climate (July 2015)

❖ *Brown v. Board of Education*: The 60th Anniversary of the Landmark Supreme Court Case (May 2014)

❖ Turning Around a High Poverty District: Learning from Sanger (April 2014)

Endnotes

1   CSBA Analysis: California Assessment of Student Performance and Progress. *2016 California statewide research file, all subgroups.* Downloaded March 9, 2017 from http://caaspp.cde.ca.gov/sb2016/ ResearchFileList

2   CSBA Analysis: California Department of Education. *Enrollment by grade for 2016-17: Statewide enrollment by grade.* Downloaded April 19, 2017 from http://bit.ly/2phubEj

3   CSBA Analysis: California Department of Education. *Statewide enrollment by ethnicity, 2016-17.* Downloaded April 19, 2017 from http://dq.cde.ca.gov/dataquest/EnrollEthState.asp?Level=State&The-Year=2016-17&cChoice=EnrollEth1&p=2

4   CSBA Analysis: California Department of Education. *2016-17 enrollment by English language acquisition status (ELAS) and grade, statewide report.* Downloaded April 19, 2017 from http://dq.cde.ca.gov/dataquest/ longtermel/ELAS.aspx?cds=00&agglevel=State&year=2016-17

5   CSBA Analysis: California Department of Education. *Special education enrollment by age and disability, statewide report.* Downloaded March 6, 2017 from http://data1.cde.ca.gov/dataquest/page2. asp?level=State&subject=SpecEd&submit1=Submit

6   Baker, B., Farrie, D., Johnson, M., Luhm, T., & Sciarra, D. G. (2017). *Is school funding fair? A national report card* (6th ed.). Newark, NJ: Education Law Center and New Brunswick, NJ: Rutgers Graduate School of Education. Retrieved from https://drive.google.com/ file/d/0BxtYmwryVI00VDhjRGlDOUh3VE0/view

7   CSBA Analysis: National Center for Education Statistics. *State non-fiscal public elementary/secondary education survey data,* 2014-15. Downloaded March 9, 2017 from https://nces.ed.gov/ccd/stnfis.asp

8   See endnote 6

9   Card, D., & Payne, A. A. (2002). School finance reform, the distribution of school spending, and the distribution of student test scores. *Journal of Public Economics, 83*(1), 49-82. Retrieved from http:// davidcard.berkeley.edu/papers/school-finance-reform.pdf

10 Greenwald, R., Hedges, L.V., & Laine, R. D. (1996). The effect of school resources on student achievement. *Review of Educational Research, 66*(3), 361-396. Retrieved from http://journals.sagepub. com/doi/pdf/10.3102/00346543066003361

11 Lafortune, J., Rothstein, J., & Schanzenbach, D. W. (2016). *School finance reform and the distribution of student achievement* (No. w22011). National Bureau of Economic Research.

12 Jackson, C. K., Johnson, R. C., & Persico, C. (2015). *The effects of school spending on educational and economic outcomes: Evidence from school finance reforms* (No. w20847). National Bureau of Economic Research.

13 California Department of Education. (2013). *California common core state standards: English language arts & literacy in history/social studies, science, and technical subjects.* Retrieved from www.cde. ca.gov/be/st/ss/documents/finalelaccssstandards.pdf

14 Black, S. E., He, Z., Muller, C., & Spitz-Oener, A. (2015). *On the origins of STEM: The role of high school STEM coursework in occupational determination and labor market success in mid-life.* Retrieved from https://m.box.com/shared_item/https%3A%2F%2Futexas.box. com%2Fs%2Fs6kds4q4oq1zs0z4mjcca6r1vfosg820

15 Rose, H., & Betts, J. R. (2004). The effect of high school courses on earnings. *The Review of Economics and Statistics, 86*(2), 497-513. Retrieved from http://faculty.smu.edu/millimet/classes/eco7321/pa-pers/rose%20betts.pdf

16 Smith, J., Hurwitz, M., & Avery, C. (2017). Giving college credit where it is due: Advanced Placement exam scores and college outcomes. *Journal of Labor Economics, 35*(1), 67-147. Retrieved from www.journals.uchicago.edu/doi/pdfplus/10.1086/687568

17 Purnell, R. (2014). A guide to launching and expanding dual enroll-ment programs for historically underserved students in California. Berkeley, CA: Research and Planning Group for California Communi-ty Colleges in collaboration with the California Community Colleges Chancellor's Office and the San Joaquin Delta Community College District. Retrieved from www.asundergrad.pitt.edu/sites/default/ files/DualEnrollmentGuideJune2014.pdf

18 Feldman, S., & Malagon, V. F. (2017). *Unlocking learning: Science as a lever for English learner equity.* Oakland, CA: The Education Trust-West. Retrieved from https://29v0kg31gs803wndhe1s-j1hd-wpengine.netdna-ssl.com/wp-content/uploads/sites/3/2015/11/ Ed-Trust-West-Unlocking-Learning-Report.pdf

19 Smithrim, K., & Upitis, R. (2005). Learning through the arts: Lessons of engagement. *Canadian Journal of Education, 28*(1-2) 109-127. Retrieved from https://eric.ed.gov/?id=EJ695662

20 Wilkins, J., Graham, G., Parker, S., Westfall, S., Fraser, R., & Tembo, M. (2003). Time in the arts and physical education and school achievement. *Journal of Curriculum Studies, 35*(6), 721-734.. Retrieved from https://scholar.vt.edu/access/content/user/wilkins/ Public/JCS_2003.pdf

21 Catterall, J. S. (2009). *Doing well and doing good by doing art: The effects of education in the visual and performing arts on the achievements and values of young adults.* Los Angeles/London: Imagination Group/I-Group Books.

22 Bridgeland, J. M., Dilulio Jr, J. J., & Morison, K. B. (2006). *The silent epidemic: Perspectives of high school dropouts.* Civic Enterprises in association with Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation. Retrieved from http://files.eric.ed.gov/ fulltext/ED513444.pdf

23 The Center for Advanced Research and Technology. (2011). *A model for success: CART's Linked Learning program increases college enrollment.* Clovis, CA. Retrieved from https://irvine-dot-org.s3.ama-zonaws.com/documents/60/attachments/cart_findings_report_final. pdf?1416865594

24 Colley, D. A., & Jamison, D. (1998). Post school results for youth with disabilities: Key indicators and policy implications. *Career Develop-ment and Transition for Exceptional Individuals, 21*(2), 145-160.

25 Kemple, J. J. & Willner, C. J. (2008). *Career academies: Long-term impacts on labor market outcomes, educational attainment, and transitions to adulthood.* MDRC. Retrieved from www.mdrc.org/ sites/default/files/full_50.pdf

26 Warner, M., Caspary, K., Arshan, N., Stites, R., Padilla, C., Patel, D., McCracken, M., Harless, E., Park, C., Fahimuddin, L., & Adelman, N. (2016). *Taking stock of the California Linked Learning District Initiative: Seventh-year evaluation report.* Menlo Park, CA: SRI International. Retrieved from https://www.sri.com/sites/default/files/ publications/sri_year_7_linked_learning_evaluation_report_0.pdf

27 U.S. Department of Education. (2016). *2013-2014 civil rights data collection: A first look.* Retrieved from https://www2.ed.gov/about/ offices/list/ocr/docs/2013-14-first-look.pdf

28 Finkelstein, N., Fong, A., Tiffany-Morales, J., Shields, P., & Huang, M. (2012). *College bound in middle school & high school? How math course sequences matter.* Sacramento, CA: Center for the Future of Teaching and Learning at WestEd. Retrieved from http://files.eric. ed.gov/fulltext/ED538053.pdf

29 CSBA Analysis: Civil Rights Data Collection. *2011-12 state and national estimations.* Downloaded February 8, 2017 from http://ocrdata.ed.gov/StateNationalEstimations/Estimations_2011_12

30 California Department of Education. *12th grade graduates completing all courses required for U.C. and/or C.S.U. entrance, all students,* 2015-16. Downloaded April 13, 2017 from http://data1.cde.ca.gov/dataquest/stgradnum.asp?cChoice=StGrdEth2&cYear=2015-16&ProgramName=All&cTopic=Graduates&cLevel=State&myTimeFrame=S

31 California Department of Education. *12th grade graduates completing all courses required for U.C. and/or C.S.U. entrance, sociodisadvantaged students, 2015-16.* Downloaded April 13, 2017 from http://data1.cde.ca.gov/dataquest/stgradnum.asp?cChoice=StGrdEth2&cYear=2015-16&ProgramName=SD&cTopic=Graduates&cLevel=State&myTimeFrame=S

32 Shulkind, S. B., & Foote, J. (2009). Creating a culture of connectedness through middle school advisory programs. *Middle School Journal, 41*(1), 20-27.

33 Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2015). *Continued progress: Promising evidence on personalized learning.* The Rand Corporation. Retrieved from www.rand.org/pubs/research_reports/RR1365.html

34 Prater, D. L., & Bermudez, A. B. (1993). Using peer response groups with limited English proficient writers. *Bilingual Research Journal, 17*(1-2), 99-116.

35 Dietrichson, J., Bøg, M., Filges, T., Jørgensen, A. K. (2017). Academic interventions for elementary and middle school students with low socioeconomic status: A systematic review and meta-analysis. *Review of Educational Research, 87*(2), 243-282.

36 National Dropout Prevention Center/Network. (2015). *15 effective strategies for dropout prevention.* Clemson, SC. http://dropoutprevention.org/wp-content/uploads/2015/03/NDPCN15EffectiveStrategies.pdf

37 Farbman, D. A. (2015). *The case for improving and expanding time in school: A review of key research and practice.* Updated and Revised February 2015. Boston, MA: National Center on Time & Learning. Retrieved from http://files.eric.ed.gov/fulltext/ED561994.pdf

38 Heyns, B. (1978). *Summer learning and the effects of schooling.* New York: Academic Press.

39 McCombs, J. S, Augustine, C. H., Schwartz, H. L., Bodilly, S. J., McInnis, B., Lichter, D. S., & Cross, A. B. (2011). *Making summer count: How summer programs can boost children's learning.* Santa Monica, CA: The RAND Corporation. Retrieved from www.rand.org/content/dam/rand/pubs/monographs/2011/RAND_MG1120.pdf

40 Augustine, C. H., McCombs, J. S., Pane, J. F., Schwartz, H. L. Schweig, J., McEachin, A., Siler-Evans, K. (2016). *Learning from Summer: Effects of voluntary summer learning programs on low-income urban youth.* Santa Monica, CA: The RAND Corporation. Retrieved from www.rand.org/content/dam/rand/pubs/research_reports/RR1500/RR1557/RAND_RR1557.pdf

41 Afterschool Alliance. (2011). *STEM learning in afterschool: An analysis of impact and outcomes.* Washington, DC. Retrieved from www.afterschoolalliance.org/STEM-Afterschool-Outcomes.pdf

42 See endnote 7

43 Duncan, G. J., & Murnane, R. J. (2014). *Restoring opportunity: The crisis of inequality and the challenge for American education.* Cambridge, MA: Harvard Education Press.

44 Hanushek, E. A. (2002). Teacher quality. In L. T. Izumi & W. M. Evers (Eds.), *Teacher Quality.* Hoover Press. Retrieved from http://hanushek.stanford.edu/sites/default/files/publications/Hanushek%202002%20Teacher%20Quality.pdf

45 Chetty, R., Friedman, J. N., & Rockoff, J. E. (2011). *The long-term impacts of teachers: Teacher value-added and student outcomes in adulthood* (No. w17699). National Bureau of Economic Research. Retrieved from http://papers.nber.org/papers/w17699

46 Darling-Hammond, L. (2000). Teacher quality and student achieve-ment. *Education Policy Analysis Archives, 8*(1). Retrieved from http://epaa.asu.edu/ojs/article/view/392/515

47 Gershenson, S., Hart, C. M. D., Lindsay, C. A., & Papageorge, N. W. (2017). *The long-run impacts of same-race teachers.* IZA Discussion Paper No. 10630. Retrieved from https://papers.ssrn.com/sol3/Data_Integrity_Notice.cfm?abid=2940620

48 Gershenson, S., Holt, S. B., & Papageorge, N. W. (2016). Who believes in me? The effect of student–teacher demographic match on teacher expectations. *Economics of Education Review, 52*, 209-224.

49 Villegas, A. M., & Lucas, T. (2002). Preparing culturally responsive teachers rethinking the curriculum. *Journal of teacher education,* 53(1), 20-32.

50 Libbey, H. P. (2004). Measuring student relationships to school: Attachment, bonding, connectedness, and engagement. *Journal of school health, 74*(7), 274-283.

51 Darling-Hammond, L., Furger, R., Shields, P. M., & Sutcher, L. (2016). *Addressing California's emerging teacher shortage: An analysis of sources and solutions.* Learning Policy Institute. Accessed from http://bit.ly/28NLynn

52 Podolsky, A.,Sutcher, L. (2016). *California teacher shortages: a persistent problem.* Learning Policy Institute and California School Boards Association. Retrieved from https://learningpolicyinstitute.org/product/ca-teacher-shortage-persistent-problem-brief

53 California Department of Education. (2015). *California state plan to ensure equitable access to excellent educators.* Retrieved from http://1.usa.gov/1SgvNe0

54 National Center for Teacher Residencies. (2016). *2015 network impact overview.* Chicago, IL. Retrieved from http://nctresidencies.org/wp-content/uploads/2016/04/NCTR-2015-Network-Impact-Overview.pdf

55 The White House, Council of Economic Advisers. (2015). *The economics of early childhood investments.* Retrieved from https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf

56 Grusky, D. B., Coddou, M., Cumberworth, E., Fisher, J., Furuta, J., Hill, J., Kimberlin, S., King, M., Kucheva, Y., Leupp, R., Mattingly, M., Rodriguez, N., Varner, C., & Wright. R. (2015). *Why is there so much poverty in California? The causes of California's sky-high poverty and the evidence behind the equal opportunity plan for reducing it.* Stanford, CA: Stanford Center on Poverty and Inequality. Retrieved from http://inequality.stanford.edu/sites/default/files/eop.pdf

57 Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., Ludwig, J., Magnuson, K. A., Phillips, D., & Zaslow, M. J. (2013). *Investing in our future: The evidence base on preschool education.* Washington, DC: Society for Research in Child Development. Retrieved from www.fcd-us.org/assets/2013/10/Evidence20Base20on20Preschool20Education20FINAL.pdf

58 Barnett, W. S., Jung, K., Youn, M., & Frede, E. C. (2013). *Abbott preschool program longitudinal effects study: Fifth grade follow-up.* New Brunswick, NJ: National Institute for Early Education Research. Retrieved from https://pdfs.semanticscholar.org/3c38/54a529ec-59c46fb0a5a456be2e514bfb9f79.pdf

59 Gottfried, M. A. (2017). ELL school readiness and pre-kindergarten care. *Educational Policy, 31*(1), 39-72.

60 Gottfried, M. A., & Kim, H. Y. (2015). Formal versus informal prekindergarten care and school readiness for children in immigrant families: A synthesis review. *Educational Research Review, 16*, 85-101.

61 Boyd, J., Barnett, W. S., Bodrova, E., Leong, D. J., Gomby, D. (2005). *Promoting children's social and emotional development through preschool education.* New Brunswick, NJ: National Institute for Early Education Research. Retrieved from http://nieer.org/wp-content/uploads/2017/02/report7.pdf

62 Manship, K., Quick, H., Holod, A., Mills, N., Ogut, B., Chernoff, J. J., Blum, J., Hauser, A., Anthony, J., & González, R. (2015). *Impact of California's transitional kindergarten program, 2013-14.* San Mateo, CA: American Institutes for Research. Retrieved from www.air.org/sites/default/files/downloads/report/Impact-of-Californias-Transitional-Kindergarten-Program-Dec-15.pdf

63 Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science, 6*(1), 42-57.

64 Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. *Jama, 285*(18), 2339-2346. Retrieved from http://jamanetwork.com/journals/jama/fullarticle/193816

65 Belfield, C. R., & Levin, H. M. (2007). *The return on investment for improving California's high school graduation rate.* Santa Barbara, CA: California Dropout Research Project. Retrieved from http://m.cbcse.org/wordpress/wp-content/uploads/2013/03/2007-levin-Report.The-return-on-investment-for-improving-california%C2%B4s-high-school-graduation-rate.pdf

66 Melhuish, E. C. (2011). Preschool matters. *Science, 333*(6040), 299-300.

67 August, D., & Shanahan, T. (2006). *Developing literacy in second-language learners: Report of the national literacy panel on language minority children and youth.* Mahwah, NJ: Lawrence Erlbaum Associates.

68 Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children.* Baltimore, MA: Paul H. Brookes Publishing Co.

69 The Education Trust-West. (2015). *Black minds matter: Supporting the educational success of Black children in California.* Oakland, CA. Retrieved from https://29v0kg31gs803wndhe1sj1hd-wpengine.netdna-ssl.com/wp-content/uploads/sites/3/2015/10/Ed-Trust-West-Black-Minds-Matter-FINAL-PDF.pdf

70 Barnett, W. S., Friedman-Krauss, A. H., Gomez, R. E., Horowitz, M., Weisenfeld, G. G., Brown, K. C., & Squires, J. H. (2016). *The state of preschool 2015: State preschool yearbook.* New Brunswick, NJ: The National Institute for Early Education Research. Retrieved from http://nieer.org/wp-content/uploads/2016/05/Yearbook_2015_rev1.pdf

71 See endnote 69

72 See endnote 2

73 See endnote 4

74 CSBA Analysis: California Department of Education. *Certified staff by ethnicity for 2014-15.* Downloaded March 6, 2017 from http://data1.cde.ca.gov/dataquest/Staff/StaffByEth.aspx?cLevel=State&cYear=2014-15&cChoice=StateNum&cType=P&cGender=B&Submit=1

75 Rumberger, R. W., Ghatak, R., Poulos, G., Ritter, R. L., & Dornbusch, S. M. (1990). Family influences on dropout behavior in one California high school. *Sociology of Education, 63*(4), 283-299.

76 Jeynes, W. H. (2005). *Parental involvement and student achievement: A meta-analysis.* Harvard Family Research Project. Retrieved from http://bit.ly/Involvement-Achievement

77 See endnote 22

78 Sheldon, S. B., & Jung, S. B. (2015). *The family engagement partnership: Student outcome evaluation.* Johns Hopkins University School of Education: Center on School, Family, and Community Partnerships. Retrieved from www.pthvp.org/wp-content/uploads/2016/09/JHU-STUDY_FINAL-REPORT.pdf

79 Goff Pejsa & Associates. (2014). *St. Paul Federation of Teachers Parent/Teacher Home Visit Project evaluation.* Retrieved from www.pthvp.org/wp-content/uploads/2016/09/spft-evaluation-2014.pdf

80 See endnote 1

81 Centers for Disease Control and Prevention. (2010). *The association between school based physical activity, including physical education, and academic performance.* Atlanta, GA: U.S. Department of Health and Human Services. Retrieved from https://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf

82 Carlson, J. A., Engelberg, J. K., Cain, K. L., Conway, T. L., Mignano, A. M., Bonilla, E. A., Geremia, C., & Sallis, J. F. (2015). Implementing classroom physical activity breaks: Associations with student physical activity and classroom behavior. *Preventive medicine, 81,* 67-72.

83 U.S. Department of Health and Human Services. (2008). *2008 physical activity guidelines for Americans.* Retrieved from https://health.gov/paguidelines/pdf/paguide.pdf

84 Goodman, R. D., Miller, M. D., & West-Olatunji, C. A. (2012). Traumatic stress, socioeconomic status, and academic achievement among primary school students. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(3), 252-259.

85 Nakamoto, J., & Schwartz, D. (2009). Is peer victimization associated with academic achievement? A meta-analytic review. *Social Development, 19*(2), 221-242.

86 Juvonen, J., Wang, Y., & Espinoza, G. (2010). Bullying experiences and compromised academic performance across middle school grades. *Journal of Early Adolescence, 31*(1), 152-173.

87 The Collaborative for Academic, Social, and Emotional Learning (CASEL). *What is SEL?* Retrieved from www.casel.org/what-is-sel/

88 Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D. & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405–432. Retrieved from www.casel.org/wp-content/uploads/2016/01/meta-analysis-child-development-1.pdf

89 Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health, 105*(11), 2283-2290. Retrieved from http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2015.302630

90 Centers for Disease Control and Prevention. (2016). *Understanding bullying: Fact sheet.* Retrieved from http://1.usa.gov/1lQZaFj

91 Austin, G., Hanson, T., Polik, J., & Zheng, C. (2016). *School climate, substance use, and student well-being in California, 2013-2015: Results of the fifteenth Biennial Statewide Student Survey, Grades 7, 9, and 11.* San Francisco: WestEd Health & Human Development Program. Retrieved from http://surveydata.wested.org/resources/Biennial_State_1315.pdf

92 Kosciw, J. G., Greytak, E. A., Ciga, N. M., Villenas, C., & Danischewski, D. J. (2016). *The 2015 National School Climate Survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools.* New York: GLSEN. Retrieved from https://www.glsen.org/sites/default/files/2015%20National%20GLSEN%202015%20National%20School%20Climate%20Survey%20%28NSCS%29%20-%20Full%20Report_0.pdf

93 The Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health. *2011/12 National Survey of Children's Health.* Downloaded April 19, 2017 from http://childhealthdata.org/browse/survey/results?q=2415&r=6&r2=1

94 Geier, A. B., Foster, G. D., Womble, L. G.,McLaughlin, J., Borradaile, K., E., Nachmani, J., Sherman, S., Kumanyika, S., & Shultz, J. (2007). The relationship between relative weight and school attendance among elementary schoolchildren. *Obesity, 15*(8), 2157–2161. Retrieved from http://onlinelibrary.wiley.com/doi/10.1038/oby.2007.256/epdf

95 California Department of Education. *2015-16 California physical fitness report.* Downloaded April 19, 2017 from http://data1.cde.ca.gov/dataquest/PhysFitness/PFTDN/MeetingHFZ2011.aspx?r=0&t=4&y=2015-16&c=00000000000000&n=0000

96 Morland, K., & Filomena, S. (2007). Disparities in the availability of fruits and vegetables between racially segregated urban neighbourhoods. *Public Health Nutrition, 10*(12), 1481-1489.

97 United States Department of Agriculture. (2009). *Access to affordable and nutritious food: Measuring and understanding food deserts and their consequences.* Washington, DC. Retrieved from https://www.ers.usda.gov/webdocs/publications/ap036/12716_ap036_1_.pdf

98 Dahmann, N., Wolch, J., Joassart-Marcelli, P., Reynolds, K., & Jerrett, M. (2010). The active city? Disparities in provision of urban public recreation resources. *Health & Place, 16*(3), 431–445.

99 Mohai, P., Lanz, P. M., Morenoff, J., House, J. S., & Mero, R. P. (2009). Racial and socioeconomic disparities in residential proximity to polluting industrial facilities: Evidence from the Americans' Changing Lives Study. *American Journal of Public Health, 99*(S3), S649–S656.

100 Brulle, R. J., & Pellow, D. N. (2006). Environmental justice: Human health and environmental inequalities. *Annual Review of Public Health, 27*, 103-124. Retrieved from www.annualreviews.org/doi/pdf/10.1146/annurev.publhealth.27.021405.102124

101 Case, A., Lubotsky, D., & Paxson, C. (2002). Economic status and health in childhood: The origins of the gradient. T*he American Economic Review, 92*(5), 1308–1334.

102 Moorman, J. E., Zahran, H., Truman, B. I., & Molla, M. T. (2011). Current asthma prevalence: United States, 2006–2008. *Morbidity and Mortality Weekly Report, 60*(1), 84-86. Retrieved from www.cdc.gov/mmwr/preview/mmwrhtml/su6001a18.htm

103 Ekono, M., Jiang, Y., & Smith, S. (2016). *Young children in deep poverty.* New York, NY: National Center for Children in Poverty. Retrieved from www.nccp.org/publications/pdf/text_1133.pdf

104 Alexander, D., Lewis, L., & Ralph, J. (2014). *Condition of America's public school facilities: 2012–13.* Washington, DC: National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2014/2014022.pdf

105 Popkin, B. M., D'Anci, K. E., & Rosenberg, I. H. (2010). Water, hydration, and health. *Nutrition Reviews, 68*(8), 439-458.

106 See endnote 104

107 Pew Research Center. (2017). *Internet/broadband fact sheet.* Washington, DC. Retrieved from www.pewinternet.org/fact-sheet/internet-broadband/

108 Zickuhr, K., Smith, A. (2012). *Digital differences.* Washington, DC: Pew Research Center's Internet & American Life Project. Retrieved from www.pewinternet.org/files/old-media/Files/Reports/2012/PIP_Digital_differences_041312.pdf

109 See endnote 105

110 McNichol, E. C. (2016). *It's time for states to invest in infrastructure.* Washington, DC: Center on Budget and Policy Priorities. Retrieved from www.cbpp.org/sites/default/files/atoms/files/2-23-16sfp.pdf

111 Thomas, W. P., & Collier, V. P. (2002). *A national study of school effectiveness for language minority students' long-term academic achievement.* Center for Research on Education, Diversity & Excellence. Retrieved from http://cmmr.usc.edu/CollierThomasComplete.pdf

112 Umanski, I. M., & Reardon, S. F. (2014). Reclassification patterns among Latino English learner students in bilingual, dual immersion, and English immersion classrooms. *American Educational Research Journal, 51*(5), 879-912. Retrieved from http://journals.sagepub.com/doi/pdf/10.3102/0002831214545110

113 Valentino, R. A., Reardon, S. F. (2014). *Effectiveness of four instructional programs designed to serve English learners: Variation by ethnicity and initial English proficiency.* Stanford University Graduate School of Education. Retrieved from http://cepa.stanford.edu/sites/default/files/Valentino_Reardon_EL%20Programs_12_15_14.pdf

114 See endnote 18

115 Muschkin, C. G., Ladd, H. F., Dodge, K. A. (2015). Impact of North Carolina's early childhood initiative on special education placements in third grade. *Educational Evaluation and Policy Analysis, 37*(4), 478-500. Retrieved from http://journals.sagepub.com/doi/pdf/10.3102/0162373714559096

116 Shaywitz, S. E., & Shaywitz, B. A. (2004). Reading disability and the brain. *Educational Leadership, 61*(6), 6–11. Retrieved from http://educationalleader.com/subtopicintro/read/ASCD/ASCD_323_1.pdf

117 Hughes, C., & Dexter, D. D. Field studies of RTI programs, revised. RTI Action Network. Retrieved from www.rtinetwork.org/learn/research/field-studies-rti-programs

118 Kirk, R., & Day, A. (2011). Increasing college access for youth aging out of foster care: Evaluation of a summer camp program for foster youth transitioning from high school to college. *Children and Youth Services Review, 33*(7), 1173-1180.

119 Hass, M. & Graydon, K. (2009). Sources of resiliency among successful foster youth. *Children and Youth Services Review, 31*(4), 457-463.

120 Rios, S. & Nevin, A. I. (2009). What do former foster youth say about their academic journey to get into college? Implications for K-12 education. *Florida Educational Leadership, 9*(2), 44-53. Retrieved from https://www.researchgate.net/profile/A_Nevin/publication/237052337_What_Do_Former_Foster_Youth_Say_About_Their_Academic_Journey_to_Get_into_College_Implications_for_K-12_Education/links/00b4951b0ed545f84e000000.pdf

121 Lovitt, T., & Emerson, J. (2008). Foster youth who have succeeded in higher education: common themes. *National Center on Secondary Education and Transition Information Brief, 7*(1). Retrieved from http://files.eric.ed.gov/fulltext/ED503289.pdf

122 Pecora, P. J. (2012). Maximizing educational achievement of youth in foster care and alumni: Factors associated with success. *Children and Youth Services Review, 34*(6), 1121-1129.

123 California School Boards Association. (2015). *California's challenge: Adequately funding education in the 21st century.* Sacramento, CA. Retrieved from https://www.csba.org/Advocacy/EducationLegalAlliance/~/media/CSBA/Files/Advocacy/ELA/2015_CaliforniasChallenge-FundingAdequacyReport

124 See endnote 5

125 CSBA Analysis: California Department of Education. *California two-way immersion programs directory.* Downloaded April 19, 2017 from www.cde.ca.gov/sp/el/ip/ap/directory.aspx