



## **FUNDING DIGITAL EQUITY TO IMPROVE THE “CALIFORNIA WAY” OF EDUCATION**

### **Achieving the Objectives of the Local Control Funding Formula by Including the School2Home Core Components in Local Control Accountability Plans**

In this policy brief, the California Technology Fund (CETF) recommends that Local Education Agencies (LEAs) incorporate School2Home into their Local Accountability Plans (LCAPs) as a vital extension of the “California Way” to ensure all students achieve academic excellence. School2Home is research-based and vetted in the field. It uses a comprehensive and coordinated approach to digital learning to support the objectives of the Local Control Funding Formula (LCFF) of ultimately increasing student academic achievement to close the notable performance gaps between low-income and higher-income students. School2Home helps school leaders improve student outcomes by identifying goals, technology-rich learning strategies, and progress indicators that can be funded and measured through the LCAP planning and implementation process. School2Home maximizes the “California Way” by addressing digital inequities that impede academic progress and success.

#### **Introduction**

Beginning a decade ago, California enacted a series of policies that defined a new era in the history of public education in the state. These changes included the adoption of new state content standards aligned to the Common Core Standards, an innovative approach to equitable education funding and greater family and community engagement in decision making. The policies center on 21<sup>st</sup> Century skills for students as well as ongoing teacher capacity building through aligned professional learning. A continuous improvement process, based on multiple measures of student success, informs local investments and accountability. Together, these initiatives, which aim to allow all students to succeed to their highest potential, have come to be known as the “California Way.”

Both, explicitly and implicitly, these policy changes assume that students, educators and families have access to technology and possess critical digital and media literacy skills. In essence, the policies understand the potential of technology to improve student outcomes on multiple measures and assume the Digital Divide in California is closed. Unfortunately, that assumption is wrong. In spite of great gains in the last decade, the Digital Divide persists in California<sup>i</sup> and it limits the promise of the “California Way” to meet the needs of underserved schools, families, and students. California educators and policymakers need to make a more intentional effort at addressing the digital inequities that separate low-income students from high-income students. Furthermore, additional supports for teachers and administrators in underserved schools are necessary to help them to optimize the use of technology in their daily practice.

In 2009, CETF brought together leaders from the public, private, non-profit and philanthropic sectors to address the Digital Divide and the Achievement Gap in California. The result of this effort was **School2Home**, an intervention designed specifically for low-performing middle schools in California. School2Home was informed by research on effective teacher professional learning, school leadership, systems change, place-based initiatives, and parent engagement. All factors associated with success pointed to a comprehensive approach, one that addressed leadership, positive teacher attitude toward technology, a reliable technology infrastructure, and technical support. After years of implementation, these factors are as important today as they were 10 years ago when School2Home was developed.

CETF continues to manage School2Home as its signature education initiative. School2Home has been implemented successfully in 37 schools in 12 districts to date. It has improved outcomes for students, teachers, parents and students in schools that, on average, consist of primarily (more than 85%) low-income students as defined by eligibility for free and reduced lunch.

This report includes: (a) a review of the crucial state policies that have come to define the “California Way” and the technology implications of each policy; (b) a brief description of the School2Home 10 Core Components with a summary of the ways School2Home aligns with and supports the California priorities for education; and (c) recommendations for districts to include School2Home in their LCAPs as a key strategy for their lowest performing middle schools.

### Critical Features of the “California Way”

- **State Content Standards for Education:** In 2010, California adopted new content standards aligned to the Common Core Standards. The standards include a solid grounding in standards-based content and intentionally integrate 21<sup>st</sup> Century proficiencies, such as critical thinking, creativity, innovation, and self-direction. Note that the kind of deeper learning required in the standards necessitates student mastery of sophisticated information and communications technology (ICT) literacy. Students without access to technology at school and home are thus limited in their ability to develop the knowledge in the standards. Although schools are purchasing devices and aiming for one-to-one environments, most schools do not allow students to take school devices home in spite of research that demonstrates the importance of home access to improved student outcomes.<sup>ii</sup>

The standards not only alter what and how students learn, they also establish new roles for teachers as educational designers, coaches and facilitators who guide students through active and collaborative learning activities. Teachers cannot easily change their teaching practice without the right supports, including help in using instructional technology effectively. They require ongoing professional learning opportunities and a robust school technology infrastructure, including a device for every student. This is especially true for teachers working in schools where students lack technology at home.<sup>iii</sup>

- **California Assessment of Student Performance and Progress (CAASPP):** To evaluate progress on the state content standards, California adopted new assessment tools, including the Smarter Balanced Assessment Consortium (SBAC) battery of math and ELA tests. These tests require students to use computers to demonstrate their understanding of higher-order thinking and content. Students unfamiliar with technology are disadvantaged when obligated to take these computer-adaptive assessment tests with tools they do not regularly use in the classroom. Schools cannot fairly assess academic outcomes if some students have consistent technology access while others do not.

- **The Local Control Funding Formula (LCFF):** In 2013, California policymakers provided extensive flexibility to all districts to develop and align educational strategies and budgets to local priorities and needs. With the adoption of LCFF, California shifted from a mostly state-controlled education system to one in which decisions about education goals, approaches, and resource allocation are made by districts and all engaged stakeholders, based on local needs. The LCFF eliminated categorical funding streams, substituting a base of funding for all districts and adding dollars for high-need student populations.<sup>iv</sup> LCFF is built on an equity foundation.
- **The Local Control and Accountability Plans (LCAPs):** In exchange for the spending flexibility provided by the LCFF, Local Educational Agencies (LEAs) are required to engage stakeholders in preparing local spending plans. Each LCAP must itemize educational goals and include costs associated with each action. While the overarching goal of the LCFF is to improve the performance of all students, the LCAP is required to pay special attention to targeted students. As well, the LCAPs are required to address the 8 pre-determined priorities of the LCFF, shown in the table below.

**California Education Priorities as Delineated in the LCFF**

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| <b>Basic Conditions/Services:</b> Access to standards-aligned instructional materials, well-maintained school facilities, and teachers who are fully credentialed and appropriately assigned. | <b>Student Engagement:</b> Students are engaged in a course of study that keeps them in school, as measured by school attendance rates, chronic absenteeism rates, and middle and high school dropout rates. |
| <b>Academic Content and Standards:</b> Programs and services that enable all students, including English learners, to access Common Core academic content standards.                          | <b>School Climate:</b> Conditions that foster healthy growth and development in and out of the classroom, as measured by student suspension and expulsion rates, and other measures.                         |
| <b>Parent Involvement:</b> Parent input in district decisions and parent participation in programs for targeted students.   | <b>Course Access:</b> All students have access to, and are enrolled in, a broad course of study.   |
| <b>Student Achievement:</b> Improved student achievement, as measured by multiple assessment tools and student advancement and accomplishments.   | <b>Other Student Outcomes:</b> To be determined by local needs.  |

- **The Integrated Accountability and Continuous Improvement System:** To support the focus on achieving equity and closing the Achievement Gap, LEAs are required to collect and submit data that will encourage educators and other stakeholders to assess progress and identify remaining inequities. The online California Dashboard is part of the accountability system. It can help parents and stakeholders view and assess how student groups and subgroups are performing on a variety of measures. However, the Dashboard is not a useful tool to families who lack access to the Internet at home and do not understand the Dashboard metrics.

## School2Home: Essential to Achieve Digital Equity and Meet LCFF Priorities

Although California has adopted bold education policy actions to address the Achievement Gap, recent state education performance results demonstrate that progress on some fronts has been slow.<sup>v</sup> To be sure, systemic changes, such as these, take many years to be implemented fully and course corrections are often needed. CETF suggests that one needed vital correction relates to digital equity. As LEAs begin updating their 3-year LCAPs to accelerate student achievement, CETF recommends that they address intentionally and comprehensively the need for achieving digital equity in low-performing Title 1 Schools.

CETF oversaw the design of, and now manages, School2Home, which provides an essential framework to help close the Achievement Gap and Digital Divide in schools located in underserved communities. This framework includes 10 Core Components, which are grounded in research and continually updated to reflect changes in technology, policy, and practice. The 10 Core Components are mutually reinforcing, designed to be implemented cohesively and meant to impact school culture.

### School2Home 10 Core Components

1. **School Leadership, Assessment, and Planning:** A School Leadership Team is formed to assess needs, analyze data, set goals, develop a work plan, and oversee implementation.
2. **Technology Bundles for Students and Teachers:** All students receive a computing device to use in the classroom and at home following parent training. Teachers receive powerful devices.
3. **Teacher Professional Learning:** Teachers receive professional learning about integrating technology into classroom instruction, homework assignments, and engagement of parents.
4. **Coaching and Mentoring:** School personnel are designated as technology coaches and content champions to support teachers and embed professional learning.
5. **Parent Engagement and Education:** Parents receive basic digital literacy training to use the device, ensure online safety, communicate with the school, and support their child's education.
6. **Student Tech Expert Development:** Students are recruited and trained to help provide basic technical support to other students, teachers, and families.
7. **Online Resources:** The website provides support for teachers to prepare lessons and assistance for parents to acquire digital skills and engage with schools and teachers.
8. **Learning Academies:** Principals and teachers participate in workshops and online sessions as learning communities to share best practices and learn from one another.
9. **Affordable Home Internet Access:** Parents receive information about affordable high-speed Internet service offers and the availability of public broadband access centers.
10. **Evaluation:** A comprehensive annual evaluation process provides feedback to schools for accountability and input to program managers for continuous improvement to achieve goals.

The successful implementation of School2Home aligns with and supports the 8 LCFF priorities. The following illustrates some of the ways School2Home can support the implementation of these priorities:

- **Basic Conditions:** Increasingly, instructional materials and resources are provided online and the teaching necessary to instill higher-order critical thinking employs multiple uses of technology. Basic conditions should ensure all students, teachers, and families have access to technology. *School2Home addresses these conditions through its focus on one-to-one device deployment, broadband assistance for families, and teacher professional learning.*
- **State Standards:** California State Content Standards include requirements for digital learning. Strategies to address these priorities should include ongoing professional learning for teachers that addresses content standards and helps them maximize the potential of technology to personalize learning to meet the unique needs of English learners and other high-need student groups. *The School2Home Professional Learning Core Component, coupled with embedded Coaching and Mentoring, helps teachers provide all students with access to state-aligned content and technology-enabled resources, especially for English learners.*
- **Parent Engagement:** Parents of students in schools in underserved communities are often less active in school activities for a number of reasons, including the fact that many may be working 2 to 3 jobs, do not speak English, or may not feel welcome in their school. *School2Home and its partner schools employ a concerted effort to overcome these barriers and tie family engagement to school goals. School2Home embeds parent engagement into structures and processes designed to meet these goals, including training and professional development. It builds on the dual-capacity building approach supported by the California Department of Education.*
- **Student Achievement:** School2Home annual evaluations have found that its digital strategies enhance student learning when compared to an analogous statewide cohort. These findings are consistent with numerous research studies. For instance, in a meta-analysis and research synthesis on learning in technology immersion environments, researchers Binbin Zheng of Michigan State University and Mark Warschauer of the University of California Irvine found that digital technologies are reshaping education with positive results.<sup>vi</sup> This meta-analysis examined more than 900 studies— 10 of which employed rigorous methodologies and sufficient statistical detail to calculate the effect size of comprehensive programs on academic performance. All of the 10 immersion environments included in the statistical analysis employed a comprehensive approach with elements similar to those in School2Home, although only a few of the partner schools participating in School2Home have been able to achieve a one-to-one environment. The findings of the 10 studies are notable because they illustrate what School2Home could accomplish with additional technology resources, especially at schools with higher percentages of low-income students.

Across all 10 studies and in the main, comprehensive technology integration programs that included at least devices for each student, professional development for teachers, strong leadership, and tech support were found to increase achievement by 0.16 standard deviations, which is statistically significant. Other statistically significant findings included:

- Improved English Language Arts achievement and writing achievement.
- Improved mathematics achievement.
- Improved science achievement.

Another study, published in 2018 in the National Center for Education Statistics (NCES), found a consistent pattern of higher performance scores for students with home Internet access in reading, mathematics, and science, and for students' knowledge of information and communications technology, than for their peers without Internet access.<sup>vii</sup> Although the study notes that the Achievement gaps

between those who reported using a computer at home/having access to the Internet at home and those who did not could be influenced by other factors, the case for students and families to have home access to computing devices and the Internet remains.

- **Student Engagement and School Climate:** Other important findings gleaned from School2Home annual evaluations, as well as from the full review of the 900 studies listed in the above meta-analysis, include positive gains in the following areas of teaching, learning, and school climate when compared to schools that were not implementing similar programs:
  - Increased frequency and breadth of student technology use. This finding was especially true for writing, research, homework, and exploring a wide range of learning opportunities.
  - Increased teacher use of student-centered, individualized, and project-based learning. Teachers found it easier to individualize learning experiences when every student had a digital device.
  - Improved quantity and genres of student writing. Students wrote more frequently and were more likely to collaborate and share their work with others.
  - Enhanced home-school relationships. Parents were more likely to pay attention to their child's homework, grades, and attendance.
  - Improved student attitudes toward schools. Surveys, interviews and observations confirmed that students liked using their laptops for learning, enjoyed school more and thought they performed better.
  - Enhanced teacher perceptions toward technology. When provided with sufficient professional support and continued learning opportunities, teachers became more positive about using technology.
  - Greater acquisition of learning skill acquisition. Although these skills are more difficult to define and measure, School2Home evaluators and other researchers found evidence of improved collaboration, complex problem solving through project-based learning, and abstract thinking by students in technology programs.

## Recommendation

This policy brief has reviewed the evolving landscape of education policy in California over the last decade, as reflected in new content standards, a substantial overhaul of education funding, and a shift towards enhanced local accountability, engagement and control. These policies, taken together, envision “education equity” of fair access to high-quality education for all students. CETF fully embraces this education equity vision, while noting that it will be difficult to achieve without a concerted and intentional effort to address the digital inequities that continue in economically disadvantaged schools.

To that end, CETF recommends that those responsible for developing the LCAP in their district, including LEAs, parents, teachers, principals, and the community at large, consider incorporating, at a minimum, the foundational core components of School2Home into their goals, programs, and strategies. These foundational core components include: (a) School Leadership, Assessment, and Planning; (b) Technology Bundles; (c) Teacher Professional Learning; (d) Parent Engagement and Education; and (e) Affordable Broadband.

This comprehensive approach will help schools maximize the impact of investments in infrastructure and instructional technology to allow all students to succeed to their highest potential regardless of socio-economic circumstances. CETF stands ready to help LEAs and schools that are committed to employing the School2Home framework as a time-tested model for improving student outcomes on multiple dimensions.

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- i Data on Digital Divide. Field Research Corporation. (2016). 2016 Annual Survey on Broadband Adoption in California. California Emerging Technology Fund. Retrieved from [http://www.cetfund.org/files/CETF\\_Annual\\_Survey\\_2016.pdf](http://www.cetfund.org/files/CETF_Annual_Survey_2016.pdf)
- ii Rideout, V. J. & Katz, V.S. (2016). Opportunity for all? Technology and learning in lower-income families. A report of the Families and Media Project. New York: The Joan Ganz Cooney Center at Sesame Workshop. Retrieved from [http://joanganzcooneycenter.org/wp-content/uploads/2016/01/jgcc\\_opportunityforall.pdf](http://joanganzcooneycenter.org/wp-content/uploads/2016/01/jgcc_opportunityforall.pdf)
- iii Darling-Hammond, L., Zielesinski, M.B., & Goldman, S. (2014). Using Technology to Support At-Risk Students' Learning. Retrieved from <https://edpolicy.stanford.edu/sites/default/files/scope-pub-using-technology-report.pdf>
- iv Note an overview of LCFF can be found here: <https://www.cde.ca.gov/Fg/aa/lc/lcffoverview.asp>
- v <https://www.cde.ca.gov/nr/ne/yr19/yr19rel68.asp> (for news release)
- vi Warschauer, M., Lin, C.-H., & Chang, C. (2016). Learning in one-to-one laptop environments: a meta-analysis and research synthesis. *Review of Educational Research*, Vol 86, Issue 4, 1052- 1084. Retrieved from <http://journals.sagepub.com/doi/abs/10.3102/0034654316628645>
- vii KewalRamani, A., Zhang, J., Wang, X., Rathbun, A., Corcoran, L., Diliberti, M., and Zhang, J. (2018). Student Access to Digital Learning Resources Outside of the Classroom (NCES 2017-098). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved [date] from <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2017098>