

2020 Vision Making the Case for Comprehensive Education Reform in California

October 2007

The Future is Today

The world is changing in ways few of us could have imagined even a decade ago. Computing and communications technology have fundamentally altered our everyday lives. To be sure, the world will continue to change and will present a host of new opportunities and challenges to the children of California. Our responsibility to those students is to provide a high-quality education that will enable them to meet future challenges and take full advantage of future opportunities. And, with Governor Schwarzenegger declaring 2008 as the "Year of Education," we have an opportunity to achieve this goal.

As the state prepares for the "Year of Education," the Office of the Secretary of Education within the Office of the Governor, the Speaker of the Assembly and President Pro Tempore on behalf of the California State Legislature, and the Superintendent of Public Instruction requested technical assistance from the CIF of the San Francisco Foundation. Cross & Joftus, LLC—on behalf of the CIF and with support from the Bill & Melinda Gates Foundation, the William and Flora Hewlett Foundation, the Irvine Foundation, and the Stuart Foundation—prepared this document to respond to the request for technical assistance.

This report documents the dynamic demographic and economic changes facing the state, the challenges of the current education system in preparing students for those changes, and a glimpse into what a future education system might look like that better supports the students and educators within the system. If we fail to build on the momentum of positive changes accomplished over the last several years, we may face economic stagnation or even decline resulting from an undereducated workforce whose skills do not match those required by businesses. At the same time, the State of California will likely face higher costs associated with an aging population and increased social services associated with an undereducated population.

One thing is clear from the research: Comprehensive education reform is needed in order to accomplish our goal of creating a brighter California future; our traditional approach to reform—fragmented and piecemeal—will not suffice. The Golden State has a golden opportunity to make the changes to policy, systems, and practices that better support students and educators. These changes, which can and should be made immediately, will move California a long ways towards ensuring that today's kindergartners are prepared to succeed and contribute when they graduate in 2020.

Changing Times and Changing Needs

When the first school bell rang this fall, an estimated 450,000¹ anxious and excited California kindergartners filed into classrooms across the state. It is a sight that has repeated itself year after year, decade after decade. Though the scene may have been a familiar one, the future awaiting the class of 2020 will be anything but familiar from previous generations. The world that awaits them will likely be more dynamic and interconnected, filled with technologies not yet imagined. The most dramatic difference awaiting the class of 2020 is that it will be one of the first trying to fill the huge social and economic void created by the mass retirement of the baby-boom generation.

According to demographers, three million California workers from the baby-boom generation will exit the workforce between 2010 and 2020 with another three million expected to retire between 2020 and 2030.² Though four million new workers will join the labor force between 2010 and 2020, outpacing the number of retirees, the characteristics of these new entrants is significantly different than those leaving. The average level of education of this outgoing generation is higher than any previous generation and will be hard to match, particularly if current trends in California student achievement continue.

Compounding the issue of a mass exodus of highly skilled workers from the workforce to retirement—a fact that has significant social-program costs—is that the future economy is likely to require higher levels of education and skills. According to the Public Policy Institute of California (PPIC), the California workforce is projected to grow by 30 percent, and the labor market will increasingly demand more highly educated, knowledge workers.³

Two related factors are at work here. First, the California economy continues to move towards those industries in which a college degree is required. For example, the services industry (e.g., personal, business, health, legal, and educational services), which typically requires at least a bachelor's degree, is expected to make up 39 percent of the California economy in 2025 compared to 34 percent of the economy in 2005. The second factor is the general trend in almost all sectors towards needing workers with at least some college, though not necessarily a four-year college degree.

What remains unclear is whether California's current education system will produce enough highly qualified workers to meet this demand: If current patterns persist, by 2020, California's economy will require more than 75 percent of its population to have at least some college education (39 percent with at least a BA), but only 61 percent of the population is predicted to have that level of educational attainment (only 33 percent with a BA).

¹ Derived from enrollment trends 2001-05, <u>www.schoolmatters.com</u>.

² Myers, Dowell (2007). *Immigants and Boomers: Forging a New Social Contract for the Future of America*. New York: Russell Sage Foundation.

³ Baldassare, Mark and Hanak, Ellen (2005). *California 2025: It's Your Choice*. San Francisco: Public Policy Institute of California.

21st Century Standards, 20th Century Systems

Californians have a unique opportunity to change the future by changing the education path of the class of 2020 and those that follow. The state already started down this path when it adopted new K-12 academic standards in the late 1990s and deliberately made them among the most rigorous in the nation. And since that time, California's K-12 educators have been working hard to understand the new academic standards and align lesson plans with them, adopt new text books, and identify better strategies for teaching California's increasingly diverse student population.

As educators have worked to adapt to these changes while increasing student achievement and the percentages of students taking rigorous courses, student outcomes still fall short of the goals set by the California's educators and policymakers. Worse, the progress made to date may plateau or even slip without significant changes in state education policies and school funding that support improvement in district, school, and classroom practice. In fact, despite the progress, more than one-third of California's 11th graders still fail to read or perform math at proficient levels.⁴ In recent years, only seven out of 10 of the state's entering ninth graders has gone on to graduate high school on time. For African American and Latino students, the chances of earning a diploma are even slimmer, with some studies showing that only slightly more than half graduate on time.⁵ And of those who graduate, only a quarter have successfully completed with a grade of "C" or better California's college-preparatory curriculum (known as A-G) most likely to lead to college acceptance and other higher learning.⁶

A series of recent studies entitled *Getting Down to Facts* (GDTF) reinforced what educators across the state have known for quite some time: California schools are being held accountable to 21st century standards while supporting them with antiquated systems developed in piecemeal fashion during the 20th century. Development of the school finance, governance, personnel, and data systems pre-date the new standards and accountability systems with little, if any, systemic coherence.

According to GDTF, the problems with California's education system include the following:

- The current finance system is deeply flawed. Funding gaps across districts are substantial and haphazard, with no regard to costs, student needs, or meeting state goals. There is no coherent rationale for why schools serving similar student populations in similar locations receive different funding amounts.
- California's education system is not making the most effective use of its current resources. This is true across a broad range of categories, from the irrational and ineffective distribution of resources across districts and schools to how staff time is allocated and the lack of transparency and evaluation.

⁴ www.schoolmatters.com.

⁵ Greene, Jay (April 2002). *High School Graduation Rates in the United States*, Manhattan Institute Civic Report.

⁶ Education Trust West (June 2004). Are California High Schools Ready for the 21st Century? Author.

- California's schools may need more resources to meet student-achievement goals, but, to have a substantial impact, increased funding must go hand-in-hand with reforms. Significant and systemic reforms directed at fixing our state's troubled finance and governance systems are needed with the understanding that reforms are not without costs.
- Highly prescriptive finance and governance policies thwart schools and districts in their efforts to meet the needs of their students and promote higher achievement. When asked about which changes would be most important to help them improve outcomes for students, principals ranked less paperwork requirements and more flexibility in allocating resources as more important than most other factors. More than 30 percent of districts' funding comes from more than 100 different categorical programs with varying levels of restrictions. Flexibility is probably even more important in California because of the diversity of students, schools, and districts. It is unlikely that a single program will meet all needs.
- Current teacher policies do not let state and local administrators make the best use of the pool of potential teachers or adequately support current teachers. Teachers are essential to student success, but current policies related to hiring, training, retaining, and dismissing teachers are not designed to optimize student learning or the quality of the teacher workforce.
- There is not enough data available to make good decisions about schooling. California lacks a culture of data and lags behind other states in collecting useful information on students' learning, teachers and the effectiveness of educational programs and operations. Basic data on such things as the learning patterns of students across grades and programs are currently absent. These data are essential for measuring progress and developing reforms, and any reform without investing in better data is unlikely to succeed.

In California, we do not have the information to tell us when schools, classrooms, or programs are working. Moreover, we do not have the flexibility in the system to inspire or learn from innovation. In such a system, only the most talented educators and students can be successful, and the extra resources needed to turn around low-performing schools and help struggling students meet high standards will have little impact.

While the research did not make recommendations on specific policy changes that would most benefit the students of California, the findings pointed the way toward solutions—a comprehensive approach to renovating California's antiquated education system into a 21st century model that empowers educators, fosters high levels of student achievement, and contributes to economic growth.

Reform Needs to be Bold and Comprehensive, Not Piecemeal

Upon release of the *Getting Down to Facts* research, Governor Schwarzenegger declared 2008 to be the "Year of Education." Given the consequences of inaction, bold action must be taken while the window of opportunity for change is open. As the GDTF researchers emphasize, marginal change—adding a few more resources or yet another well-intended program—is unlikely to have any significant impact on student outcomes.

There is a real need for realigning California's school finance, governance, personnel, and data systems with the state's goals for school and student performance and for accompanying those reforms with targeted resources that support educators and student learning. The momentum created by the *Getting Down to Facts* research provides educators and policymakers an opportunity to envision and put in place an education system radically different than the status quo.

Without such change, California's educators will continue to struggle to provide a high-quality education to all students. A balanced and comprehensive approach, on the other hand, not only will improve student outcomes in California, it will be a vital investment in individual and community opportunity and the state's economic competitiveness.

Stemming from the problems identified in the *Getting Down to Facts* studies, one might envision a set of reforms that address those deficiencies and consider how those reforms, if implemented, could benefit students, business, and the state of California in the years ahead. Below, we consider four main areas for potential reform, envisioning how these areas might look differently for the class of 2020 if California enacts significant policy and fiscal changes.

Teacher Assignment and Professional Development

The Challenge

Prior research has concluded that high-quality teaching can dramatically improve student achievement outcomes. The *GDTF* research team identified current policies related to teaching that prevent all students from having access to the best teachers, including:

- California state laws do little to address teacher-quality gaps among schools. Without other incentives, teachers typically choose to work in schools with the best working conditions, which are typically not those serving low-income and minority students.
- Current salary structures do not value teachers with skills that are in high demand, making it difficult to recruit and retain teachers of hard-to-staff subjects such as math and science.
- Substantive evaluation of teachers occurs infrequently, preventing meaningful feedback to teachers and informed decisions about professional development and staffing. In addition, teacher tenure in California occurs earlier in a teacher's career than in other states, exacerbating the removal of low-performing teachers.

- The state's emphasis on requiring teachers to take generic education credits does little to improve teacher effectiveness, and existing teacher education is often disconnected from the actual skills teachers need most.
- California lacks effective programs that train and support principals in being the instructional leaders of their schools.

The Vision

In the ideal California of 2020, the best and brightest college students from the nation's top universities choose to enter the teaching profession at the same rates that they currently enter the fields of business and law. Teaching is viewed as a prestigious and vital profession. Schools of education offer a rigorous curriculum that incorporates subject-matter content, classroom management, and child development; practice teaching with feedback from master teachers; and opportunities to observe master teachers. Students graduate with the knowledge and skills needed to be highly effective beginning teachers. School districts are able to recruit top-notch teaching candidates, particularly in high-need subjects and schools, with competitive salaries, bonuses, and other desirable incentives.

New teachers are actively mentored by veteran teachers and participate in professional development programs that are directly connected to their work and experiences in the classroom. Once in the classroom, teachers encounter a work environment that fosters their success. Conditions such as small class sizes, adequate preparation time, and sufficient support personnel (e.g., counselors and social workers) ensure that all teachers have the necessary resources needed to serve students. Based on their abilities and skills, teachers are able to progress along a career path that includes additional responsibilities without having to leave the classroom entirely. Teachers with the most experience compete to work in the schools that need them most, particularly those with high concentrations of low-income and minority students. Teachers are evaluated frequently through direct observation and various outcome measures to determine their effectiveness. Teachers failing to improve student outcomes are identified and provided with extra support. When necessary, low-performing teachers are dismissed.

Resource Generation, Allocation, and Use

The Challenge

GDTF researchers found that the current resource allocation system in California often hinders more than helps school districts in raising student achievement. In particular:

• School and district administrators often feel as though their hands are tied by cumbersome restrictions on the allocation and use of resources. Up to one-third of funding is associated with categorical programs from the state with varying levels of restrictions attached to them. As a result, many administrators report the complex nature of these restrictions, some of which work in direct opposition to one another, and an inability to respond creatively to the needs of their students in a way that would lead to real achievement gains.

- California's school finance system is not aligned with the state's education goals and standards—funding does not follow state priorities or the educational needs of students.
- State revenues and the funding available to school districts are highly dependent on a tax base subject to significant fluctuations.
- When compared with other states, California spends significantly less per pupil than other states. While few believe that more money alone will cure all ills, it is well understood that California schools have fewer teachers, fewer administrators, and fewer counselors in schools than most other states.

The Vision

One can envision a time in the near future when California school funding is not subject to a volatile revenue base and when the state allocates and uses resources in a transparent manner that is consistent with its goals for student achievement and regional cost differences. Schools in California are supported by a sustained commitment of resources to adequately meet the demands of all students. California schools have access to educational resources within a system that fosters innovative collaboration with other social service agencies to effectively meet the needs of the students and their families and the flexibility to allocate those resources in a way that is responsive to students' needs. Rather than a system built around compliance and distribution formulas based on narrow interests, we envision a system that recognizes and reflects student needs, provides local educators with the flexibility to tailor education programs to their unique circumstances, and is aligned to governance and accountability structures of the state's education system.

Information Systems

The Challenge

Lack of data and information in California drastically impede the efforts of state and local decision-makers to improve resource allocation and inform school improvement activities and classroom instruction, according to *GDTF* researchers. Findings include:

- California lacks a strategic plan for collecting and reporting information about its schools and lacks a culture of data in how that information can be used to drive effective decision-making, from the state level to the individual classroom.
- California has repeatedly failed to make the financial investment needed to support a comprehensive, longitudinal data system that adequately tracks students, programs, and teachers at the state level.
- The majority of school districts lack local information systems that enable critical analysis to make sound, strategic decisions about instruction, teacher and program effectiveness, and student learning. Furthermore, school leaders and teachers often lack adequate training in using data to drive student achievement.

• Without adequate data, researchers in California have been unable to evaluate the effectiveness of the state's public school reform efforts and thus unable to help inform future decision-making.

The Vision

It is possible to envision California's education system in 2020 that includes schools that are hotbeds of innovation and high performance, driven by policies and practices that are informed by robust data systems tracking the performance and needs of students and schools over time. The use of data is a critical part of the educational culture in California. Data flow freely between school districts and the state to assist educators in delivering high-quality instruction. Well-trained teachers and school leaders have access to and use high-quality, real-time student achievement data to make well-informed decisions about instruction and student learning. Teachers know immediately whether a student is struggling with a recently learned concept, such as multiplication or reading comprehension, and can immediately call upon resources, such as reading specialists or tutors, to provide struggling students with the extra support they need.

Within this vision, principals can deploy additional resources where needed to support teachers and their students. For example, principals are able to track which teachers may need more professional development with certain subject matter given how their students are mastering specific content. High schools can predict which students are most likely to drop out of school and have the capacity to intervene before it is too late. Central office administrators can identify struggling schools in the middle of the year and provide specialized supports, such as school improvement specialists and reading coaches. Finally, educators and policymakers are able to observe and begin to understand long-term, post-schooling student outcomes (such as employment or further schooling) to further refine and improve the state's educational system.

Leadership

The Challenge

State education policies have a strong effect on California school leaders, especially principals. And, as the *GDTF* researchers found with resource allocation and use strategies, they also found that some current policies hinder more than help principals' efforts to raise student achievement. Survey data of principals indicate that:

- Principals report that categorical program rules and paperwork requirements impede their ability to raise student achievement.
- California principals report spending less time on activities connected with instruction and more time responding to legal and regulatory requirements and to teacher and parent concerns.
- Principals report frustration with being unable to dismiss ineffective teachers. Greater authority in this area, even if infrequently used, would increase principals' ability to forge a more effective teaching team.

The Vision

For the California of 2020, one can envision teachers and administrators most familiar with students making the decisions about how to use resources. School leaders are empowered to succeed within the school system, rather than in spite of it. Principals have the flexibility and authority to allocate resources where they are most needed to meet standards. Using student achievement data throughout the year, principals have the flexibility and skills to alter spending plans accordingly. For example, a principal may discover that her second-grade students are falling behind in reading and decide to shift resources to provide extra funding for professional development for teachers working with these students.

Principals also have to ability to allocate teachers to grade levels, courses, and students as they see fit without having to work within limiting labor-contract provisions. Operating within the context of the district's existing reform plan, principals have the flexibility to make instructional reform decisions, such as adding more time for reading instruction, based on their schools' needs rather than contract rules or categorical fund requirements. In addition, principals have the authority to hire, evaluate, support, and, in worst-case scenarios, remove teachers based on their effectiveness. Finally, principals have the time and training to serve as instructional leaders and are not bogged down by overly burdensome regulations and paperwork. In exchange for this greater degree of autonomy and authority, principals are held accountable, rewarded for school and student success, and if necessary, removed if unable to demonstrate results.

Finally, aspiring principals complete rigorous pre-service professional development programs that provide academic and hands-on training to develop their skills as instructional and organizational leaders. New principals receive coaching and mentoring from experienced principals. And all principals have adequate leadership support at their school sites from assistant principals, counselors, and other administrators to allow them to serve as instructional leaders to their teaching staff.

A Better Future for Students

Clearly, the reform vision outlined above is ambitious and not without significant hurdles to implement. But, there is little question that the effort is worthwhile: We know both intuitively and from existing research that a strong education system provides extraordinary benefits for students beyond their years spent in the classroom.

For decades, research has shown a dramatic and direct correlation between educational attainment and earnings potential. In fact, in a snapshot of salaries in 2001, researchers found that the average college graduate earned 76 percent more money than the average high school graduate, and advanced degree holders earned 120 percent more. What's more, less educated individuals face higher rates of unemployment and are more likely to live in poverty. The poverty rate for college graduates is about one-third of the poverty rate for high school

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⁷ Carnevale, Anthony and Desrochers, Donna (2004). *Standards for What? The Economic Roots of K-16 Reform* Washington, DC: Educational Testing Service. Baum, Sandy and Payea, Kathleen (2004). *Education Pays 2004: The Benefits of Higher Education for Individuals and Society.* Trends in Higher Education Series. New York City: The College Board.

graduates.⁸ Clearly, an education system in California that keeps students engaged throughout their K-12 educational experience and beyond will contribute greatly to their economic well being for years to come.

In addition, as Tom Friedman makes clear in his book *The World is Flat*, students today are not competing simply with the child sitting next to them in class, or in the rival school down the block. Today's students are competing in a global arena. The newfound ability to source talent and skills from across the globe is placing tremendous pressure on students to achieve at high levels so they can produce at those levels as adults.

Improving California's school system will help the state's future graduates meet the challenges of this ever-flattening world. It will prepare them to think creatively, adapt to changing circumstance and advancing technologies, and inventively develop solutions to the problems of tomorrow.

One can only imagine what the world will look like in the year 2020 as today's kindergartners cross the graduation stage, diploma in hand, ready to pursue their life's goals and dreams. We believe California has the ability, and obligation, to prepare its students to compete and succeed locally, nationally, and globally.

A Better Future for California Business

The benefits of improving California's educational system extend beyond the students currently enrolled in the state's K-12 system. If we invest in making the changes necessary now to our educational system, we can expect a thriving business economy in California in the years ahead. Imagine a future in which students are prepared with the knowledge and skills demanded by California's growing economy; California businesses are able to choose from a diverse field of highly qualified job applicants who have been educated locally; and California is known throughout the country, and the world, as a leader in innovation and creative business solutions as a result of its highly skilled, homegrown workforce.

The exodus of the baby boom generation will affect every state, some more so than California. Though California businesses have traditionally had the luxury of importing highly educated workers from other states (and nations) to fill their workforce needs, the competition for these types of workers will grow more fiercely. With a better-educated homegrown workforce, the sting of that competition will be lessened.

A Better Future for California – The "Snowball Effect"

As we consider the impact of a more effective educational system in California, it is important to recognize the overall societal return of a more highly educated population. In fact, there is the potential for a "snowball effect" whereby individual gain is compounded to greatly benefit society as a whole. What can Californians expect in return for improving its educational system?

⁸ Baum and Pavea (2004).		

Less Crime and Decreased Prison Costs

Studies show an inverse correlation between years of schooling and crime rates. In essence, more schooling decreases an individual's chances of committing a crime or serving time in prison. For example, researchers recently found that a one-year increase in average years of schooling for dropouts would reduce murder and assault by almost 30 percent, motor vehicle theft by 20 percent, arson by 13 percent, and burglary and larceny by about 6 percent.

In addition, California currently houses 170,000 prisoners at a cost of \$7 billion annually. Recent studies of prison populations found that prisoners are significantly more likely to be less educated than the overall general population. For example, a study by the U.S. Department of Justice on the educational attainment of state and federal prisoners found that in 1997, an estimated 75 percent of state prison inmates and 59 percent of federal inmates did not complete high school.¹⁰

Expanded Tax Base and Decreased Need for Public Assistance

As a more educated population enters the workforce, incomes rise, and in turn, state tax revenues expand. According to Princeton University researcher Cecilia Rouse, the average high school dropout earns \$260,000 less than a high-school graduate over the course of their lifetime. For California, this represents more than \$38 billion in lost wages and taxes. If California could capture even a portion of these lost funds by improving educational outcomes for students, this expanded tax base would allow the state to improve its infrastructure, including schools, roads, and healthcare.

In addition, those with lower education levels have been shown to be more reliant than their peers on governmental social assistance programs such as welfare, unemployment, and Medicaid during their lifetime. For example, an African-American female that successfully graduates high school will cost the state and federal government \$8,100 less annually in social assistance programs than a high-school dropout of the same race and gender.¹²

Healthier Communities

When policymakers and communities consider the impact of education reforms, they often focus on reading scores, achievement gaps, and graduation rates. While all are extremely important, the impact of education extends far beyond these academic metrics. In fact, as California improves its education system, it can expect healthier citizens that are more engaged in community life.

Studies have shown that more highly educated individuals perceive themselves to be healthier when compared to those with less education and that smoking rates go down as education levels go up.

⁹ The Campaign for Educational Equity (2005). *Cost of Inadequate Education to Society Is Hundreds of Billions of Dollars, Researchers Say.* Accessed at: http://www.tc.columbia.edu/news/article.htm?id=5320. ¹⁰ Harlow, C. W. (2003, January. Revised April 15, 2003). *Education and Correctional Populations*. Bureau of Justice Statistics Special Report. Washington, DC: U.S. Department of Justice. Available: www.ojp.usdoj.gov/bjs/pub/pdf/ecp.pdf.

Alliance for Excellent Education (2006). "High school dropouts cost the U.S. billions in lost wages and taxes, according to Alliance for Excellent Education," http://www.all4ed.org/press/pr-022806.html.

¹² Vernez, G., R.A. Krop, and C.P. Rydell (1999). Closing the Education Gap; Baum and Payea, (2004).

Research has also shown that educational attainment leads to higher levels of civic participation. For example, more education is correlated with higher levels of participation in volunteer activities. And a recent study found that "in every age group, adults with higher levels of education are more likely to vote than those who have less education." For democracy to flourish, civic involvement and informed voter participation are essential, and education is an important driver.

Passing High Achievement on to Future Generations

As California's children move through the state's education system, graduate, and go on to have families of their own, their educational achievement will have an impact on the lives of their children and generations to come. Research has shown a strong correlation between parents' educational attainment and their children's academic success. ¹⁴ One can expect to see the success or failure of California's students, perhaps the class of 2020, perpetuated in future generations.

Turning Vision into Reality

For students and their families, the first day of kindergarten is a day of great hope and celebration. It is a major milestone marked by excitement and imaginings of all that the future has to hold. For this year's class of 2020, we envision a bright future—one in which all students are prepared for college, career, and participation in a democracy.

We envision a school system in which all students have access to high-quality teachers and administrators, educators benefit from well-designed professional development and robust data systems, and school leaders have the flexibility and skills to allocate resources to meet student needs. We envision a future in which California's students can compete globally, and businesses thrive because they are staffed by a top-notch labor force. Finally, we envision a state enjoying the benefits of a highly educated population, including less crime, decreased costs for prisons and welfare, engaged citizens, improved infrastructure, healthy communities, and generations of lifelong learners.

California can move closer to achieving this vision by developing and adopting comprehensive and research-based school finance, governance, personnel, and data reforms that will greatly enhance the ability of K-12 educators to succeed in raising academic achievement of California's students.

¹⁴ NCES (1996). "Urban Schools: The Challenge of Location and Poverty." Accessed at: http://nces.ed.gov/pubs/96184all.pdf.

¹³ Baum and Payea (2004).