

California Policy Brief

CHILDREN'S EDUCATION: THE CLEAR CASE FOR DATA SYSTEMS REDESIGN

Primary Contact: Brad Strong, Education Director, bstrong@childrennow.org

PROBLEM:

California's many data collection efforts on children's education are not integrated or unified

California currently uses many disparate systems to collect and analyze data pertaining to children's education. The California Department of Education alone has over 125 data collection efforts going in this area, capturing data from student demographics and attendance to expulsion rates and testing scores. Additional databases that track children's education are also maintained by the University of California, the California State University, the California Community Colleges, the state Employment Development Department, the Department of Social Services and the Department of Justice and California Youth Authority (CYA), among others. Moreover, at least four other teacher data systems are separately maintained by the California Teachers' Retirement System and the Commission on Teacher Credentialing. However, very few of these data systems are integrated to enable data standardization, sharing and enhancement. As a result:

- ✓ *No clear standard for data collection and analysis exists;*
- ✓ *We lack clear information on quality of programs;*
- ✓ *Data are not centralized and accessible;*
- ✓ *State and local decision making suffers;*
- ✓ *Individual students needs go unaddressed;*
- ✓ *Continuous improvement efforts are sporadic and lack state support.*

EVIDENCE BASE:

A strong body of research documents the need for the creation of an integrated, longitudinal data system for children's education

In the past few years, much research has demonstrated the need for the creation of an integrated, longitudinal data system. In 2007, the *Getting Down to Facts* determined that:

“California is lagging most other states in developing education data systems capable of helping policymakers and others understand how schools are doing and how resources can be deployed most effectively to increase student learning.”

The established recognition of this need is not new. In May of 2002, EdSource highlighted the seriousness of California's need to address its education data issues, stating:

“The current lack of longitudinally linked data in California has important implications for policymakers seeking to understand which schools and which programs are effective; for parents, teachers, and administrators who want to know how well students are progressing; and for anyone who is interested in understanding the status of public education.”

Similar conclusions have been drawn by the Data Quality Campaign, the Public Forum on School Accountability, the Alliance for Excellent Education and others.

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ISSUES:

The data system redesign efforts already underway are insufficient

While California has begun to make progress toward data systems redesign with the creation of the California Longitudinal Pupil Achievement Data System (CALPADS) and the California Longitudinal Teacher Data System (CALTIDES), it has become increasingly clear that these systems alone are insufficient to support the analyses necessary to fundamentally improve education and student achievement in California.

However, these two systems will undoubtedly provide critical data, including answering important questions about graduation rates, student achievement, teacher qualifications and credentialing programs and can serve as the backbone of the more comprehensive system that is required.

Absent linkages with other data however, these systems will not be very useful in determining which schools or programs are most effective at truly preparing students for success in college or gainful employment – outcomes being the only real test of college and career readiness. Nor will they be useful in helping to evaluate the cost-benefit of programs like preschool, after school, Healthy Families and others targeting at-risk youth (i.e. foster care, teen pregnancy, etc.). Consequently, they alone will not provide the immediate answers that teachers, principals and counselors need to best serve students.

It is also troubling that we do not even have the most basic information related to program participation when it comes to many of our early childhood programs. This has to be included in any comprehensive effort.

For teachers, administrators, parents, policymakers and researchers to make better decisions that lead to improved student outcomes, a clear understanding of student characteristics and program participation is critical. For educators, real time access to this information is particularly important. As one example, an understanding of the offenses and parole stipulations of juvenile offenders (currently housed within a CYA database) could provide meaningful resources and information for school counselors (both academic and mental health). Similarly, academic records would be valuable for CYA educators to develop age- and achievement-appropriate curricula for offenders.

Unfortunately, these systems are not easily integrated, and paper records can sometimes take up to six months to retrieve – too late to be of much use to the teachers, counselors and principals in the trenches seeking to meet the needs of these at-risk students.

SOLUTION:

A new data system for California's children

Only by developing the ability to ascertain what works and what does not will the State be able to make clear progress in regards to academic achievement. For California to regain its position at the top of our nation's academic and economic indices, the state will need to develop a comprehensive, integrated, longitudinal data system that allows for continuous improvement on the part of students, teachers, administrators and policymakers alike.



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Specifically, the system must provide useful information to those working directly with students and to policymakers (state and local) so that they may make well-informed decisions about educational investments that yield the best outcomes.

As a first step in the creation of a comprehensive student-centered information system, the effort must be informed by research and by an awareness of the efforts underway in other states. The Data Quality Campaign has carefully analyzed what states have done and has identified a set of best practices for others to follow. At a minimum, we need to generate consensus around the belief that California's information system must include these best practices and become a model for the nation.

Data Quality Campaign

Goals: Answering Six Priority Questions:

1. *Which schools produce the strongest academic growth for their students?*
2. *What achievement levels in middle school indicate that a student is on track to succeed in rigorous courses in high school?*
3. *What is each school's graduation rate, according to the 2005 National Governors Association graduation compact?*
4. *What high school performance indicators (e.g., enrollment in rigorous courses or performance on state tests) are the best predictors of students' success in college or the workplace?*
5. *What percentage of high school graduates who go on to college take remedial courses?*
6. *Which teacher preparation programs produce the graduates whose students have the strongest academic growth?*

Data: Ten Essential Elements

1. *A unique statewide student identifier that connects student data across key databases across years*
2. *Student-level enrollment, demographic and program participation information*
3. *The ability to match individual students' test records from year to year to measure academic growth*
4. *Information on untested students and the reasons they were not tested*
5. *A teacher identifier system with the ability to match teachers to students*
6. *Student-level transcript information, including information on courses completed and grades earned*
7. *Student-level college readiness test scores*
8. *Student-level graduation and dropout data*
9. *The ability to match student records between the P-12 and higher education systems*
10. *A state data audit system assessing data quality, validity and reliability*

If we intend to effectively address the needs of all children, then we must also generate the political will to establish a comprehensive information system capable of highlighting the most effective policy decisions and providing insight into the most cost-efficient and appropriate services for our children.

Overarching Themes & Specific Recommendations

Children Now believes that any comprehensive, child-centered, educational information redesign should be guided by the following key themes:

- The state's role in data collection, use and practice must be clearly identified and should foster an environment of continuous improvement. Fundamental to this issue is the ability to identify what the most appropriate and effective role is for the State (versus school districts) in fostering a system-wide culture of using and sharing data beyond compliance-oriented activities (i.e., standards-based diagnostics, benchmarking, and best practice sharing/improvements to curriculum and instruction).
- A comprehensive, interconnected information system must be the goal. It is critical that the system being developed is able to communicate with and manipulate information from other related databases, including (but not limited to) those pertaining to: 1) preschool and child care; 2) higher education; 3) teachers, administrators and other certificated employees; 4) child welfare services; 5) workforce development; 6) social services; and 7) juvenile justice.
- Access to the data is critical and must be provided to policymakers, researchers, and local educators in ways that best foster intelligent policy, rich and useful datasets for analysis, and that help inform classroom instruction and assist teachers and administrators in identifying and addressing individual student needs.

In order to achieve the goals that Children Now has advanced, the following recommendations are offered as the most important elements to include in any effort to dramatically improve educational information systems in the state of California.

1. **Establish a Data Oversight Commission:** California currently lacks any formal governance structure dedicated to providing policy guidance related to the creation and ongoing implementation of educational information systems and related data. The Commission would be the formal governance umbrella charged with overseeing, consolidating, and standardizing data from the various silos. The Commission should also be tasked with establishing access procedures and security protocols while ensuring that policymakers, researchers and local education agencies have access to useful data that is directly pertinent to their unique roles in our efforts to improve student achievement.
2. **Centralize Data Collections – Warehouse Data:** The various data collections efforts need to be combined into a centralized repository with sufficient staff dedicated to both ensuring the quality of the data, and creating stock reports and information that will aid local educators and state policymakers alike in establishing and supporting a culture of continuous improvement in our schools. In addition to stock reports, dedicated staff would respond to specific requests from policymakers, educators and researchers, while ensuring that all privacy, access and security protocols are strictly adhered to.

3. **Important Collections:** The data contained in the centralized repository should be inclusive of educational records from preschool through college in addition to data related to child welfare, social services, juvenile justice and the workforce. This type of rich information system will allow for more comprehensive analyses of our educational system, thereby fostering a better understanding of what happens to our children as they traverse California's education system and enter the workforce. In addition, it will provide teachers, counselors, principals and even social workers with information about the needs of at-risk students who may also be part of the juvenile justice or foster care systems.
4. **Invest for Success – Major Ongoing Commitment:** To achieve the goal of continuous improvement through the use of data, we will need to make a substantial commitment of both one-time and ongoing funding. All districts need to have student information systems that are up-to-date and dedicated staff that are trained and knowledgeable about the collection and management of data. These frontline staff are central to the reliability of the data and are responsible for generating and maintaining student identifiers, as well as following coding protocols to ensure that categories like dropouts and transfers are reported consistently throughout the state.
5. **Increase Transparency – School Accountability Report Card (SARC):** Throughout the years, the SARC has become the one tool by which policymakers can collect and display data without incurring many costs. This has resulted in the SARC becoming completely unwieldy, and has also led to the unfortunate consequence that we now have no way to centralize about 25 percent of the data collected. Making matters worse, once complete, principals and schools districts post SARCs on local websites with no centralized location to find them. We should require SARC data to be added via a web form with a backend database so that the State may also secure the data. A single state-run website should also be created to provide access to every SARC.
6. **Missed Opportunities – Major Initiatives and No Data:** One of the biggest obstacles to securing data is the mandated cost associated with its collection. All too often, substantial funds are dedicated to major education initiatives and large categorical programs without any way to evaluate their effectiveness or any data to help assess their outcomes. For example, last year Governor Schwarzenegger and Legislature dedicated \$2.9 billion to the Quality Education Investment Act to help schools that are serving higher percentages of low income, minority, and English learners to close the achievement gap. Because the implementation plans were largely local, this historic opportunity could have provided substantial insight into how site level resources are used. Future commitments should be coupled with reasonable requests for data to allow for effective program evaluation.

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