

## IMPROVING CALIFORNIA'S STUDENT DATA SYSTEMS TO ADDRESS THE DROPOUT CRISIS

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### Highlights:

- ▶ **California's education segments—K-12, Community Colleges, California State University, and University of California—maintain independent student data systems to compute graduation and completion rates *within* their respective segment(s)...they cannot, however, account for transfers *across* segments.**
- ▶ **The education segments should integrate their existing data systems into a unique student data record system capable of tracking students from kindergarten to college and beyond.**
- ▶ **The most critical information needed to enhance existing data systems is student participation in various education improvement programs...in order to evaluate their effectiveness.**
- ▶ **Experience with other states...suggests that a strong advocate will need to promote the development of an integrated student record data system for California.**

The extent of California's dropout problem is unknown. In 2005-06, the state Department of Education reported two widely different estimates of the rate at which California students graduate from high school: 83.2 and 67.1 percent. Others have placed the state's high school graduation rate at somewhere between 71 and 74 percent. At the postsecondary level, the five-year graduation rate at California state universities is placed at below 50 percent, although this rate may be too low because it does not account for students who may have completed their degrees on campuses other than the ones where they started.

California needs to build a robust student data system to accurately measure high school and college graduation rates across schools and colleges, improve capabilities to assess the status of education, and improve the quality of education. Such a system is commonly called a *student unit record (SUR)* or *K-20+ data system* because it contains an individual electronic record corresponding to each student that permits tracking an individual student's progress over time—from entry into kindergarten (or pre-school) to exit from college, and eventually into the labor market.

### ▶ Purposes of a SUR Data System

An SUR data system serves four main purposes:

- Holding educational institutions accountable.
- Evaluating the effectiveness of education programs.
- Helping to identify students at risk and design appropriate programmatic interventions.
- Assessing return on education investments.

It would enable the state, education administrators, faculty, and the public to address issues that cannot be addressed with current data systems, such as: ascertaining the true state high school and college graduation rates; evaluating the progression of California's students over time; identifying students who are dropping out and how to help them; improving course articulation between high school and college; evaluating program effectiveness in retaining, preparing, and helping students to succeed in high school and college; identifying classes of students who may need special intervention and attention;

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and, assessing how well students are prepared to meet California's future labor demands.

The accurate measurement of individual student dropout, enrollment, graduation and achievement is necessary for all of the above purposes.

### ► **Limitations of California's Current Data Systems**

Currently, the state's four education segments—K-12, Community Colleges, California State University and University of California—maintain five independent student data systems:

- **The California School Information System (CSIS)** has the responsibility to assign a unique, non-personally identifiable random student identification (CSID) number to all K-12 students in California. It maintains enrollment data and can track students since 2006.
- **California Longitudinal Pupil Achievement Data System (CALPADS)** was authorized by the legislature in 2003 to meet the federal, state, district, and school reporting requirements of the federal No Child Left Behind Act of 2001. It is under development and will not be completed until 2009, at the earliest.
- **California Community Colleges Management Information System (COMIS)** contains selected records for all students attending one of the 109 community college campuses throughout the state since 1992.

- **California State University Enrollment Recording System (ERS)** contains selected standardized records for students from all of the 23 CSU campuses since 1985, although a less complete set of records is available dating back to 1979.
- **University of California Corporate Student System (CSS)** contains selected records for students from the nine UC campuses since 1999, although a less complete set of records is available dating back to 1994.

In addition to the systems listed above, the **California Postsecondary Education Commission** maintains a student record data system that contains a subset of information from all three postsecondary segments, and the **California Partnership for Achieving Student Success (CAL-PASS)** maintains non-identifiable, longitudinal student-level data files on behalf of 11 regional consortia of K-12 schools, community colleges, and Cal State and UC campuses. Participation in a consortium is voluntary and schools may pull out of a consortium at any time.

Each of these student data systems can be used for accountability purposes. They contain, or will contain, the data needed to compute graduation and completion rates *within* their respective segment(s); that is accounting for transfers from one K-12 school to another or, for instance, from one CSU campus to another CSU campus, although none of the segments have yet published these rates if they actually compute them.

These systems cannot, however, account for transfers *across segments*, or transfers to an educational institution in another state. And they have limited, if any, use for other purposes, either because they do not contain the required information or they are not integrated or linked with one another and with other data systems that contain information on post-education activities, earnings, and federal and state program participation.

### ► **Desirable Enhancements to Existing Student Data Systems**

California needs to make the following enhancements to its existing data systems to fully meet the state's evaluative and decision-making capacity:

#### **1. Add specific data elements.**

Student information (including courses completed, grades for course completed, college preparation test scores, student attendance, education programs students participate in) currently collected by schools, districts, and/or colleges, ought to be added to the existing student record of each of the segmental data systems. In addition, new data should be added.

The most critical additional student information needed is participation in the various education improvement programs implemented by the state, the segments, or individual districts and colleges, such as summer school, tutoring, remedial classes or courses, high-school-to-college transition programs, dropout prevention, and class-size reduction programs.

Without this information, the effectiveness of these policies and programs cannot be evaluated on an ongoing basis.

## **2. Integrate the existing SUR data systems from the four California education segments.**

The four segments' existing data systems enhanced with the added data elements listed above ought to be linked, or preferably integrated, into a unique student data record system for the state. Over time, the capacity to link this integrated student data system with other in-state and out-of-state data systems containing information on students transferring to private or other states' educational institutions, and on students' activities after they have completed their education, ought to be added incrementally.

## **3. Link the integrated SUR data file with other data files.**

As noted in the preceding section, computing comprehensive graduation and completion rates, identifying the economic activities that students engage in after leaving education, assessing the performance of California students in their adult lives, and calculating returns on educational investment, will require also linking the eventual integrated student records with a broad set of federal, state, and other individual data records systems.

## **4. Broaden access to the resulting data set.**

Access to the existing, and eventually to the integrated, student record data system, ought to be made available (in an anonymous format) to schools, districts, and campuses, as well as to outside

interested parties and researchers. While federal and state laws limit the options under which the integrated data system can operate, there are few restrictions to allowing access to *anonymous* student data.

## **5. Improve data quality.**

Standardization of the data across segments, and the quality of the data collected, needs to be given more focused attention. This will require providing staff resources and training at the school, district, and campus levels.

## **6. Enhance analytical capabilities.**

An independent dedicated entity that is adequately funded ought to be established to analyze on an ongoing basis the data from the integrated student data record system, provide objective measures and assessments of the state of California's education, and support data-driven decision making. This entity could be part of another entity that eventually operates the integrated student data system, or could be housed at an existing research center or university.

These enhancements will require addressing several challenges, including overcoming the culture of independence and the protective mindset of the four education segments, shifting some of the decision-making authority on data requirements and information technology decisions away from the four segments' governing boards, establishing an entity that has the authority to make decisions on the design of the integrated student data system, and another (or the same) entity that is given the responsibility to maintain and operate the data system. Decisions will

also have to be made regarding a unique student identifier across the four segments, and about who will have access to the data, and under what circumstances.

Experience with other states, and our own study of the feasibility of developing an integrated student record system for California, suggests that a strong advocate—the governor, a legislator, a well-connected business leader—will need to promote the development of an integrated student record data system for the state. Legislation will be required because many of the issues involved are sensitive and important, and need to be aired, debated, and eventually resolved in an open public debate. It is not likely that the disparate views about governance of the proposed data system and access to the data can be resolved without legislative authority.

## **► Conclusion**

California needs to develop a longitudinal student record data system integrating information from its four education segments with added linkages to a broad set of other in-state and out-of-state data sets to track the progress and accurately measure the performance of its students, schools, and colleges, and to assess the effectiveness of its education programs and investments.

Such a system would not only help the state to better understand and address the dropout crisis, but would also help it improve educational performance more generally.

## Research Reports and Policy Briefs in Print

1. **THE ECONOMIC LOSSES FROM HIGH SCHOOL DROPOUTS IN CALIFORNIA** (*August 2007*)
2. **THE RETURN ON INVESTMENT FOR IMPROVING CALIFORNIA'S HIGH SCHOOL GRADUATION RATE** (*August 2007*)
3. **DOES STATE POLICY HELP OR HURT THE DROPOUT PROBLEM IN CALIFORNIA?** (*October 2007*)
4. **CAN COMBINING ACADEMIC AND CAREER-TECHNICAL EDUCATION IMPROVE HIGH SCHOOL OUTCOMES IN CALIFORNIA?** (*November 2007*)
5. **STUDENT AND SCHOOL PREDICTORS OF HIGH SCHOOL GRADUATION IN CALIFORNIA** (*December 2007*)
6. **CALIFORNIA SCHOOLS THAT BEAT THE ODDS IN HIGH SCHOOL GRADUATION** (*December 2007*)
7. **ALTERNATIVE PATHWAYS TO HIGH SCHOOL GRADUATION: AN INTERNATIONAL COMPARISON** (*January 2008*)
8. **GIVING A STUDENT VOICE TO CALIFORNIA'S DROPOUT CRISIS** (*March 2008*)
9. **BUILDING SYSTEM CAPACITY FOR IMPROVING HIGH SCHOOL GRADUATION RATES IN CALIFORNIA** (*April 2008*)
10. **IMPROVING CALIFORNIA'S STUDENT DATA SYSTEMS TO ADDRESS THE DROPOUT CRISIS** (*May 2008*)

## Forthcoming

11. Follow-up Study of Students Who Did Not Pass the California High School Exit Exam (CASHEE)
12. School Transitions, Adolescent Development, and the Potential for Reducing Dropout Rates
13. Investigating Middle School Determinants of High School Achievement and Graduation in Three California School Districts
14. A Profile of High School Completion in the Los Angeles Unified School District
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