

June 2001



Clarifying
Complex
Education
Issues

Developing CSIS: An integrated public school data system

Collecting accurate and reliable information about public school students, their classes, and their teachers is a perennially thorny issue. Schools and districts have limited capacity and time, yet the state needs data for its own and federal reports. Even in the high-tech age, assembling basic data, summarizing it by school, and transmitting it safely are difficult challenges.

California's strong push for accountability at all levels heightens the need for good data. In an effort to improve school records and streamline information gathering, state policymakers created CSIS (California School Information Services program) in Assembly Bills 107 (1997) and 1115 (1999).

CSIS is supposed to enhance the ability of school districts to collect data, simplify the transmission of school or district information for use in state and federal reports, and enable the electronic transfer of individual student data from school to school or school to higher education. This simple, almost common sense idea turned out to require detailed planning, a complex design, and careful execution.

Establishing CSIS was complex

Responsibility for the development and implementation of CSIS is assigned by law to the independent, state-funded agency FCMAT (Fiscal Crisis and Management Assistance Team), a unit of Kern County Superintendent of Schools. Among other things, the new Sacramento-based CSIS staff, with the assistance of a broad-based advisory committee and the cooperation of state agencies, has had to:

- ✓ develop a strategic plan;
- ✓ identify the necessary data for the electronic transfer of information;
- ✓ provide an extensive "data dictionary" identifying the source and meaning of each piece of data; and
- ✓ establish protocols for identifying students while ensuring privacy and security within the system.

The chronology of this work and other CSIS materials, including the measures that safeguard student privacy, are available online: www.csis.k12.ca.us

CSIS is responsible for the development of processes and protocols school districts need to complete two major functions: integrating and streamlining the flow of information to the California Department of Education (CDE), and rapidly transferring student records. The latter includes demographic and health information, test scores, and enrollment history. It will be encrypted and sent from the student's prior school directly to the new one.

The data sets for state reporting will include, for example, demographic information, attendance of students and teachers, graduation and dropout data, and particular course enrollments. The CDE identified 40 state reports that it needs and would collect from districts through CSIS, following a careful transition process. CSIS is expected to provide five of them from the participating districts this year.

Phasing in the new, voluntary system is expected to take five or six years. In 2000–01, its second year of operation, 155 participating districts and county offices of education have formed nine consortia representing nearly a million and a half students. Each consortium has adopted and is using different software, either purchased or self-developed, to create its own data system within the CSIS parameters.

The state offers incentives

The new student record keeping system is voluntary. To encourage participation, CSIS offers one-time incentive funding through the consortia, based on a sliding scale that includes enrollment and number of schools.

Incentive payments are crucial, and not only because the program is voluntary. Although some schools and districts have sophisticated techniques for collecting and reporting data, many do not. In addition, the new system has its own descriptors and categories of data as well as software. The incentive payments are intended to cover a portion of the costs in the start-up period.

Public schools are becoming data driven

CSIS is one piece of a larger change in how California school districts collect, manage, and analyze data of various types. State agencies and school districts are also becoming familiar with a new accounting system designed to improve budgeting and financial reporting. And they are adjusting to annual developments in California's statewide testing program and to the highly public Academic Performance Index (API), which is used to rank the performance of public schools and determine state awards or interventions.

Districts and county offices are expected to realize eventual savings because they will spend less time transferring student records and completing various state reporting forms. The CSIS plan for the new data collection system is to eventually replace many reports that school districts and county offices must now complete, some of which currently request identical information.

Adequate funding is key

For CSIS to live up to its potential, the project will need adequate funding, effective oversight, and further development. The estimated six-year expense is \$28.4 million for operations and \$88 million for incentive grants. The plan is to phase in about 222 additional school districts in the third year, 2001–02, at an estimated additional cost of \$20 million.

Funding is one of the many things under discussion. Governor Gray Davis' 2001–02 budget proposal includes \$16.5 million for CSIS, which would cover ongoing operations and about half of the estimated cost of the planned expansion, according to an analysis by the independent Office of the Legislative Analyst (LAO). The LAO recommends a substantial increase—more than \$12 million—in the proposed budget for CSIS in 2001–02.

The law establishing CSIS included a provision for oversight, with quarterly reports from an external consultant. The California Department of Finance and the Department of Information Technology had to agree on the terms of that contract, which was awarded to Logicon in Sacramento.

The CDE needs to continue to determine how best to replace the 40 data collections it now requires with the new school, staff, and student databases created under CSIS. Particularly important is a high level of data comparability between CSIS participants and districts that are not yet part of the new system.

Reliable student data will have a number of uses

A chorus of concerns accompanied the creation of CSIS. These centered around student and teacher privacy, the enormity of the database, insufficient funding to develop and implement the new system, lack of capacity in many schools or districts, and the need to involve and acquire cooperation from a number


of existing state agencies. As CSIS has moved carefully forward, these concerns continue to be addressed.

CSIS, when fully implemented, will support the goals of California's broad accountability system. For example, the legislation that established the Academic Performance Index (API) that ranks schools called for the use of teacher and student attendance, dropout, and graduation data. Currently that information either is not collected uniformly at the school level or is not considered valid because of unreliability in the collection procedures. Full district participation in CSIS would enable the CDE to meet the requirements of the API law by expanding the components of the Index.

Further, proponents of CSIS point out that better statewide information would aid in the analysis of test scores and educational evaluation at both local and state levels. Linking participants' test results with program data would help make clear the "value added" to student learning by specific programs, they say. And it would ensure that information about students who move from school to school would not be lost in the system.

Education researchers and policymakers are beginning to realize the potential in a system that can provide consistent information. One immediate result is suggestions for broadening the scope or purpose of the CSIS data collection, even before the resources needed to include all California school districts and county offices are available.

The longer-run possibilities for CSIS are indeed intriguing. For example, the data could be used to link information about migrant and at-risk students with the several county or state agencies that provide services to them and their families. In some other states, the data system connects K–12 education with what happens to students in post-secondary schools or the workforce.

With increasing attention on California's data-driven accountability system, the necessity for reliable and comparable data is clear. The challenges for full implementation are sufficient financial support to entice all schools to participate, safeguards to protect students and the data, and communication and cooperation among the involved state policymakers. 



EdSource is a not-for-profit 501(c)(3) organization established in California in 1977.

Independent and impartial, EdSource strives to advance the common good by developing and widely distributing trustworthy, useful information that clarifies complex K–12 education issues and promotes thoughtful decisions about California's public school system.

This EdFact may be reprinted, with credit to EdSource.

For more information about our organization, a catalog of our publications, or details on how to subscribe to our Information Service, please contact us at:

EdSource
4151 Middlefield Road
Suite 100
Palo Alto, CA
94303-4743
650/857-9604
Fax 650/857-9618

E-mail
edsources@edsources.org
Or visit us on the web:
www.edsources.org

For data about every school and district in California, visit the Education Data Partnership:
www.ed-data.k12.ca.us

EdSource thanks the Ahmanson Foundation for investing in our work.

© Copyright 2001
by EdSource, Inc.