ABSTRACT
        The California Education Information System (CEIS)
consists of two subsystems of computer programs designed to process
business and pupil data for local school districts. Creating and
maintaining records concerning the students in the schools, the pupil
subsystem provides for a central repository of school district
identification information and a modular master file from student
data together with seven other applications which provide master file
maintenance, mark reporting, attendance accounting, test reporting,
master schedule building, student scheduling, guidance, and
educational planning. The business subsystem consists of an
integrated series of five applications: accounts payable, stores
inventory, central control, personnel and payroll, and financial.
Projected date of field test completion for both subsystems is March
1, 1972. (SH)

CALIFORNIA EDUCATION INFORMATION SYSTEM

SYSTEM DESCRIPTION AND STATUS REPORT

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CALIFORNIA EDUCATION INFORMATION SYSTEM
SYSTEM DESCRIPTION AND STATUS REPORT

The California Education Information System consists of two subsystems
of computer programs designed to process Business and Pupil data for
local school districts. It is currently programmed for an IBM 360/30
and a Honeywell H-200 series computer.

The Pupil Subsystem creates and maintains records concerning students. This
subsystem includes nine applications.

The Business Subsystem creates and maintains records pertinent to the fiscal
position of the institution. This subsystem includes five integrated appli-
cations.

Pupil Subsystem

The Pupil Subsystem is designed to create and maintain records concerning
the students in the schools. This subsystem is made up of nine applications.
Each of these is described briefly below:

The Process Control Application is a central repository of school and
district identification information and provides a central reference
point for the options selected by the schools. Each of the other
applications references the Process Control Files to determine which
options are to be used for each school in their processing.

The Master File Maintenance Application creates, from Student Data Trans-
mittals and Health and Guidance forms, a modular master file. It provides
a means of directly updating any of the information that is on the master
file without going through the application that created that data. A
provision is also made for making mass changes, such as transferring junior
high school students to the high school they will be attending the next year.

The Mark Reporting Application provides a means of recording the marks
given by the teachers in each of the students' subjects and computing
the students' mark-point-average. It provides exception reports such
as the D, F, and I list which shows those students who have the number
of "D" grades or more as specified by the school or an "F" or an "In-
complete" grade. This application also provides for a variable number of
credits to be assigned to a particular student in a particular course
and for recording early completion of courses.

The Attendance Accounting Application provides the capability for the school to report on an exception basis those students who are absent. These records are checked against the school calendar so that holidays and teachers' institute days may be accounted for automatically. This application then computes the average daily attendance for the school and provides cumulative and current attendance information. It also provides reports such as the Irregular Attendance Report which indicates those students who have missed a specified number of days or more during the school month or during the school year.

The Test Reporting Application provides for the automated creation of test answer media, the scoring of the tests, and the reporting of results. The raw scores from these tests may be converted into a variety of converted scores such as grade placement, percentile, stanine, and others as requested. Reports such as cluster analysis, item analysis, student profiles, and test result labels are produced by this application.

The Master Schedule Builder Application assists the school administrator to develop a master schedule of courses to be offered by matching the students' course requests with the teachers available to teach these courses. This produces a list of the courses to be taught by each teacher and indicates the number of sections necessary.

The Student Scheduling Application schedules the students into classes using either the Honeywell Scheduler J or Honeywell Scheduler G or the IBM 360-scheduler. This application produces locator cards showing where the students are to be at any period during the day, class lists, and room load reports.

The California Guidance Application brings together data from the Master File and from the Test Scoring, Mark Reporting, and Attendance Accounting Applications to create and maintain a student history file. This application creates the California Academic Achievement Record which is a historical record of the student's academic career, and the California Guidance Report, which is a synopsis of his health data, test scores, and mark point averages.

The Educational Planning Application is a diagnostic tool which produces exception reports that fall into three classes. The first class includes those students who exceed a school-supplied parameter or norm. The second class includes those students who are below a school-supplied norm or criterion. The third class includes those students whose indicated abilities are apparently not in accord with their achievement as measured by test scores and course marks. This application is controlled entirely by school parameters which specify the data to be selected, the comparisons to be made, and the degree of discrepancy which must exist between a student's indicated abilities and apparent achievement before he is reported as an exception.

As of September 24, 1971, all of the Pupil Subsystem applications have been programmed for the Honeywell computer and converted to the IBM 360. Most of the documentation has been completed in a preliminary fashion. As soon as the operation manuals are delivered by the contractor, the entire Pupil Subsystem will be tested as a unit on the Honeywell and on the IBM. The field testing activity will then be started and will continue until such time as the Pupil Subsystem is proven to be operational in a field environment. The projected date of field test completion for the Pupil Subsystem is March 1, 1972.

Business Subsystem

The Business subsystem is an integre ed series of five applications.

The Accounts Payable application provides for the processing of all commercial account types of transactions from the origination of a requisition through the purchase order and receipt cycle to the generation of a warrant for payment and the posting of appropriation (fund control) information.

The Stores Inventory application uses purchase and inventory change data to maintain Inventory Status and compile Inventory History, and provide reports on stock status, stock shortages, back orders and records of inventory transactions by location within the school district.

The Control application is designed to provide a central control for all information common to the overall business subsystem and provide flexibility to meet varied district processing requirements.

The Personnel/Payroll application produces payroll warrants and maintains all payroll records. It maintains personnel data relative to work history, credential and educational background, sick leave and vacation leave balances, and retirement information.

The Financial application processes inputs from the Accounts Payable, Stores Inventory and Personnel/Payroll applications, and produces required reports and financial management reports. It maintains a Financial Master File, Audit file and current account control and periodically updates Income Ledger, Appropriation Ledger and General Ledger.

As of November 1, 1971, all of the Business Subsystem applications, except Stores Inventory and Accounts Payable, have been tested individually and by application. Preliminary documentation has been written and accepted except for the Accounts Payable Application. Field testing which has begun in Santa Clara Regional Center, Riverside Regional Center, Los Angeles Regional Center, Stockton Unified School district, and Oakland City Unified School district will be continued until the Business Subsystem is proven operational in a field environment.

The anticipated completion date of the field testing and the certification that CEIS is operational is March 1, 1972.

The CEIS programs have been written in COBOL to operate on the following:

- Any Honeywell 65K MSR-1 system with 2 disk drives and 4 tape drives.

- Any IBM 65K DOS system with 3 disk drives and 3 tape drives.

For information about CEIS, contact:

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Business Subsystem

Pupil Subsystem

CONTROL
User Req.
& Schedule

Accounts Payable

Personnel-Payroll

Stores Inventory

Manual Financial Input

Scheduling

Attendance

Mark Reporting

Test Reporting

Financial

Master File Maintenance

STUDENT HISTORY

STUDENT MASTER

California Guidance Reporting

Administrative Planning

PERSONNEL DATA

FINANCIAL DATA

Evaluation Data