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ABSTRACT

In March 1993, the National Goals Panel Technical Planning Subgroup on Core Data Elements was convened to focus on the issue of identifying information that could be obtained from local student data systems for use in monitoring local and state progress toward the National Education Goals. This panel's report identified recommended data elements, but did not investigate their availability or their local utility. In 1994-95, the Far West Laboratory collected 250,000 student records as part of a demonstration project for the California Student Information System. This Automated Information Retrieval System Demonstration Project (AIRS) explicitly addressed data processing and data quality issues to determine the degree to which local student information systems contain the information needed to support data aggregation and to identify weaknesses and ways to overcome them. AIRS findings indicate that the set of data elements recommended by the National Education Goals Panel is far outside the scope of existing information systems and would require massive data collection of little practical value for local educators. In addition, the prescription to keep a longitudinal, cumulative record to each student is incompatible with student information update procedures and the need for current information. Appendix A defines the recommended core data elements, and Appendix B displays AIRS functions and requirements and file layout. Appendix C contains data coding specifications. (Contains 11 figures.) (SLD)

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# Availability of Student Data to Support National Goals Panel Accountability

November 30, 1995

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## **Availability of Student Data to Support National Goals Panel Accountability**

### **Abstract**

In March 1993, the National Goals Panel Technical Planning Subgroup on Core Data Elements was convened to focus on the issue of identifying information that could be obtained from local student data systems for use in monitoring local and state progress toward the National Education Goals. The report from this panel identifies a "Recommended Set of Data Elements and Corresponding Indicators for Monitoring Progress Toward the Goals" to be maintained by local student record systems. However, the report did not investigate the availability or local utility of these data items in student information systems.

In 1994-1995 Far West Laboratory collected 250,000 student records as part of a demonstration project for the California Student Information System. Called AIRS, The Automated Information Retrieval System Demonstration Project was undertaken to demonstrate the feasibility of establishing a statewide system for electronic data gathering and aggregation of student information that would:

- streamline state and federal reporting,
- reduce districts' reporting burden, and
- enhance the quality of information available for accountability purposes and inter-agency student services needs.

Evaluation of the AIRS model explicitly addressed **data processing** and **data quality** issues to:

- determine the degree to which local student information systems contain the information needed to support data aggregation for state reporting and accountability programs,
- identify data discrepancies and other impediments to data extraction from local systems and translation to a standard format, and
- recommend strategies for overcoming gaps in data accessibility.

Although AIRS did not address all of the National Goals Panel data elements, AIRS findings regarding characteristics of student information systems and data "effort" with respect to availability and ease of collection, are broadly applicable to any program intent on using existing local information systems for larger reporting purposes.

AIRS findings indicate that the set of data elements recommended by the National Education Goals Panel is far outside the scope of student

information systems and would require massive data collection of little practical value for local educators. Furthermore, the prescription to keep a longitudinal cumulative record for each student is incompatible with student information update procedures and mission critical need for current information.

## **Background**

The consensus among state and federal education policy makers is that more accessible student information would improve their decision-making processes. The National Education Goals Panel has endorsed the development of statewide record systems with the expectation that such systems will one day provide the means for tracking national education goals. The majority of states are now planning or considering statewide systems.

In California, efforts to improve the quality of state level student information have been spearheaded by the California Student Information Services (CSIS) initiative. Between 1991 and 1994, the CSIS project conducted a broad-based feasibility study of key issues related to student data collection and information sharing. These include a statewide district readiness assessment to determine the level of perceived need and readiness to implement electronic record transfer; a cost-benefit study of individual student record transfer; a review of policy issues regarding confidentiality, privacy and student identification issues; and the development of the California Student Data Handbook.

In the Fall of 1993, CSIS undertook a project to demonstrate the **technical feasibility of establishing a statewide system for electronic data gathering and aggregation to meet state reporting and accountability purposes**. The project, called the Automated Information Retrieval System (AIRS) Demonstration Project, included participation from 331 school sites located within 38 districts and 6 county offices of education.

A 1992 CDE study<sup>1</sup> indicated that the CDE conducts forty-four (44) independent data collections from schools, districts, and county offices each fiscal year which are estimated to cost an average of \$35 million statewide. The study's analysis of the types of data collected indicated that a relatively narrow range of information is collected repeatedly by various CDE programs, but because the information is aggregated differently, there is very little compatibility among the Department's information databases. As a result, it is impossible to link the Department's information databases and

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<sup>1</sup> *Data Collection and Management in the California Department of Education*, report prepared by the Internal Feasibility Task Group of the CSIS Project, Program Evaluation and Research Division, October 1992.

respond to new research or evaluation questions about students without conducting new studies or data collections. It was estimated that current state reporting costs for schools and districts could be reduced by more than 80 percent by retrieving information that now exists from local student information systems through a system such as AIRS<sup>2</sup>.

The demonstration project focused on technical feasibility or "proof of concept" and was not intended to define the full data requirements for implementation of a statewide AIRS process. That process will require further analysis and support from program areas across the California Department of Education to create a comprehensive file layout that will cover all student data reporting.

### **Data Standards**

To accomplish the primary data collection and consolidation objectives, it was necessary for the demonstration project to establish standards for student-level information. Rather than establish a unique standard for California, the decision was made early on to use the SPEEDE/ExPRESS standard developed by ANSI for the National Center for Education Statistics (NCES). It was felt that this would promote adoption in California of national data standards for student information that would increase comparability, meaningfulness, and accuracy of data. Besides the SPEEDE/ExPRESS electronic data standard, NCES has developed a Student Data Handbook that defines the broadest set of student data that educators may require at various levels. For the AIRS project, a data elements file layout was developed for the three reporting forms: CBEDS-SIF (School Information Form), R-30-LC (Language Census Form), and E-COMP/TR (Test Results Reporting Form for ESEA Chapter 1 and EIA-State Compensatory Education). Layout elements were based on the SPEEDE/ExPRESS standard where possible (see **Appendix B** for AIRS Data Elements File Layout).

### **Data Processing**

The demonstration project established a process for LEAs to provide student-level information to the CDE and other state agencies. A desired outcome of the project was to determine how ready schools were to participate in an automated information retrieval process. A significant factor was the degree to which schools had data which could be successfully translated to a standard format to meet state reporting requirements. Participating LEAs were asked to provide AIRS data by specific dates to coincide with demonstration project needs. These data are described in

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<sup>2</sup> Same source as previous footnote.

**Appendix B** in the reference document *AIRS Data Elements File Layout*. Data were requested for both current (active) students and all those who had withdrawn during the current or preceding school year. *Exit date* and *enrollment status* data were used to differentiate between the active and inactive student records.

The AIRS data evaluation describes data collection activities and actual data received from participating COEs and districts (and their schools) as a result of AIRS data processing attempted or completed. The data evaluation covers the following:

- Description of AIRS data received from *each* participating site (including completeness with respect to the AIRS file format).
- Description of missing AIRS data and summary of reasons why these data were not sent or available from local sites (including gaps or disparities between what CBEDS asks for and how data were maintained at local sites).
- Replication of the state CBEDS report (including comparison of CBEDS vs. AIRS methods for collecting and verifying data).
- Related conclusions, recommendations and next steps (including hurdles to overcome for statewide implementation of AIRS).

The AIRS Demonstration Project was the first attempt to harvest data from disparate LEA systems. AIRS process results identify the following areas of concern:

**Data processing.** LEAs experienced difficulties in completing required AIRS data processing steps (extraction, mapping, conversion, error checking). A major cause of these difficulties was the wide variation that exists in local school databases and file formats even at sites using the *same* information system software.

**Data consolidation for state reporting.** Data submitted by some participating sites included both current (active) students and those withdrawn during the current or preceding school year. Other sites, however, submitted data only for active students. Furthermore, the disparity between how data are requested by the CDE and how local data are maintained and reported by LEAs is a critical problem area that must be explored and resolved.

**Data availability.** The greatest obstacles to obtaining individual student information from LEAs for aggregated state reporting were that critical data were often not kept in local databases or were not maintained in a standard format. Furthermore, certain types of student data (e.g. for

categorical programs, testing, health) were often stored in separate databases and locations sometimes maintained by the school, district, or county office. A high priority for implementing a statewide electronic reporting system in California will be to work with LEAs to improve student data maintenance and accessibility.

An AIRS Data Field Analysis report was prepared and sent to each data submitter along with a request for further documentation. This AIRS Data Field Analysis is a field-by-field report of the data submitted with respect to the full set of AIRS data elements. The Field Analysis shows the percent of student records reporting data for each field, whether the field is required for constructing the CBEDS-SIF report using the AIRS method, and whether participants provided documentation describing problems they encountered in mapping to the required AIRS format from their local student information systems. For data fields required for CBEDS reporting, participants were asked to document how this information is currently collected *if* they were not able to submit data using their electronic student information system

AIRS data elements for CBEDS-SIF reporting are analyzed in five broad categories:

- Current school enrollment by demographic categories,
- Prior year student outcome reporting,
- Current course enrollment,
- Student program participation in ten categories of alternative education, and<sup>d</sup>
- School-level information (not available in CBEDS but captured by the AIRS method).

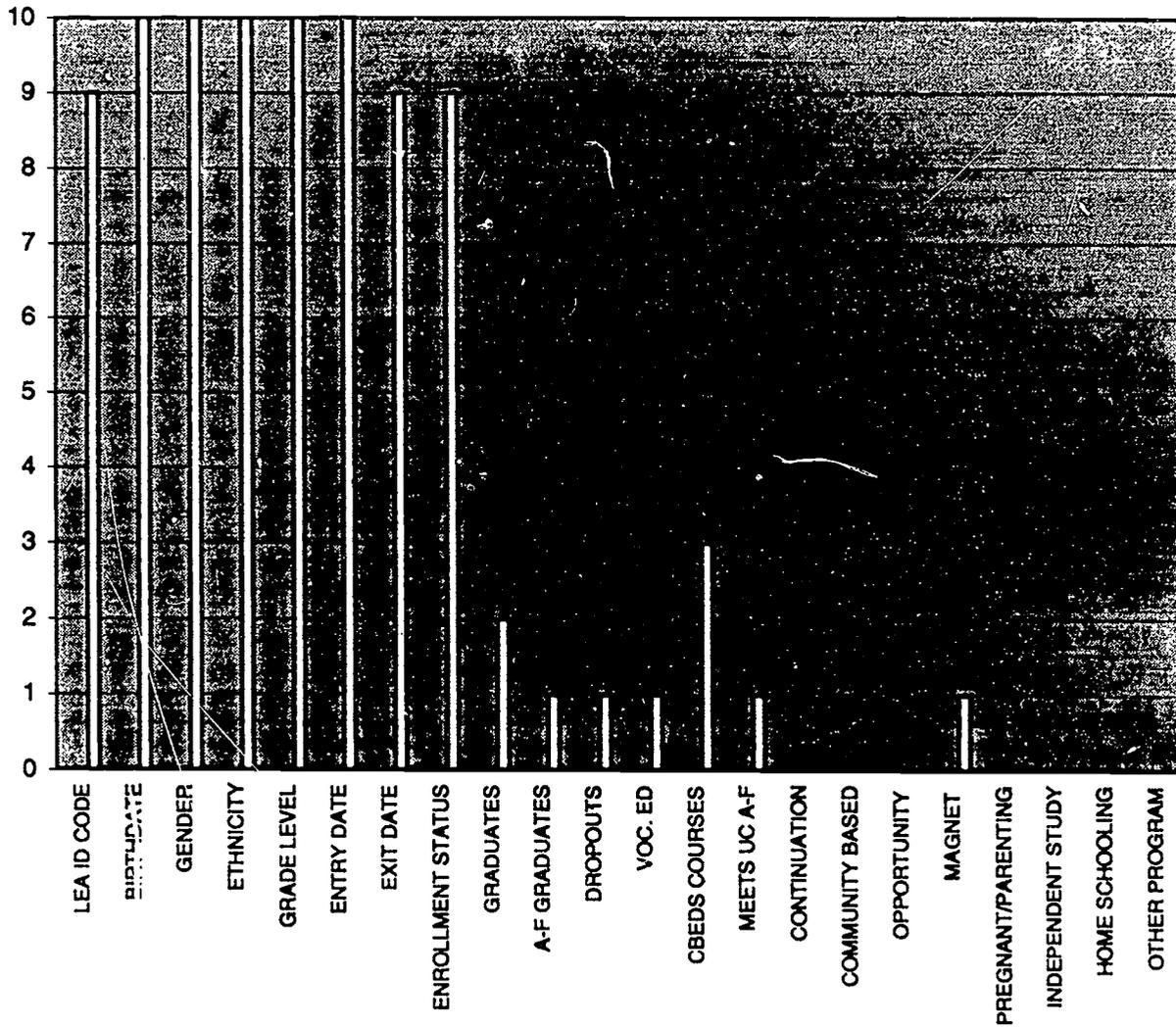
**Figure 1** below shows the results of data submissions for CBEDS-SIF elements from 10<sup>3</sup> COE and district participants in AIRS. For a complete specification of the data elements required for AIRS CBEDS-SIF reporting, see *"AIRS Data Collection Coding Specifications and Corresponding Student Data Handbook Elements for the CBEDS School Information Form (SIF)"* (Appendix C).

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<sup>3</sup> Although 11 COEs and districts submitted data (see *Summary of AIRS Data Processing Completion* table), one district's data was submitted too late for inclusion in this analysis.

Figure 1

CBEDS-SIF Information



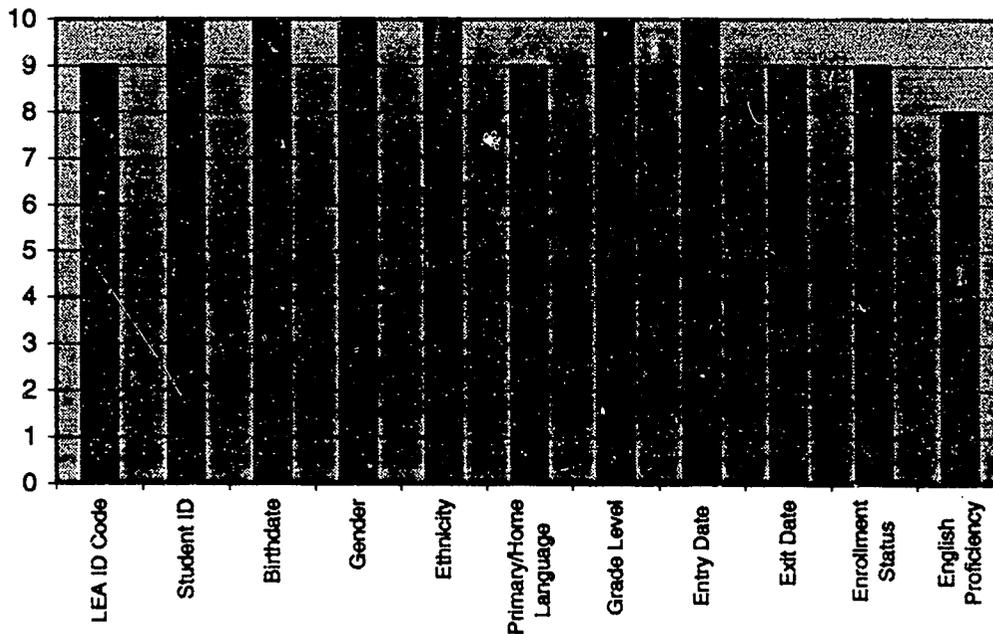
A sharp drop off in data beyond current point in time snapshot information about enrollment status, grade-level etc., and basic demographic information is apparent. Participants had great difficulty reporting data collected over time, such as prior year graduates and dropouts, accumulation of all high school credits necessary to meet enrollment requirements for the University of California (A-F graduates) and data concerning participation in special programs over the course of the school year.

The following charts show data submitted for *all* AIRS elements by COE and district participants, not just for CBEDS-SIF reporting. Data elements are organized in four categories: demographic information, student

outcome data, student program participation data and core linking elements for a state archived record system.

**Figure 2**

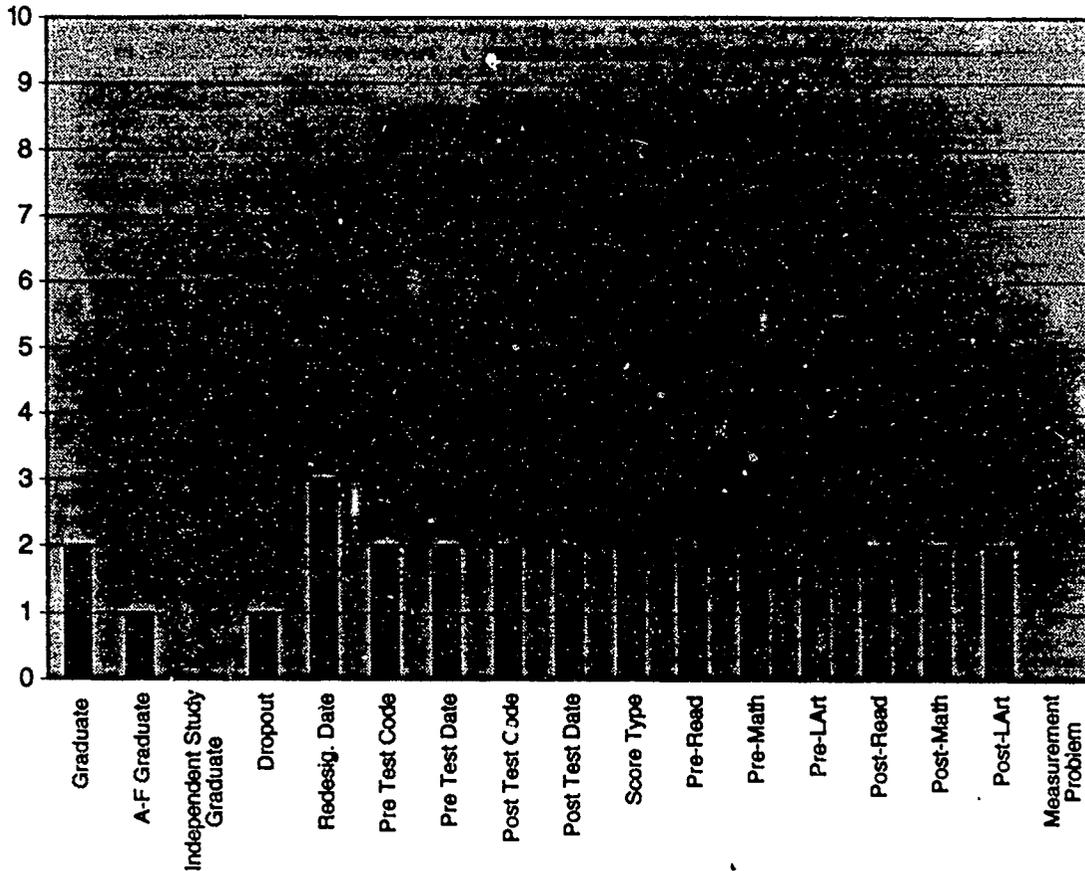
### Demographic Information



**Demographic information.** Basic demographic information was widely available; in addition to the demographic information required for CBEDS-SIF reporting, LEAs nearly universally keep home language and/or primary language information for students, as well as English proficiency information. Point-in-time snapshot data collections (such as the SIF enrollment count by demographic categories on Information Day) are particularly compatible with current on-line data maintained in student information systems. An incremental approach to a student-level data collection might begin with scheduled collection of basic demographic information in conjunction with a Fall report of all actively enrolled students, and a Spring report of student academic attainment and skills assessment. The reach of current CBEDS reporting could be readily extended by incorporating home/primary language and English proficiency information.

Figure 3

### Student Outcome Data



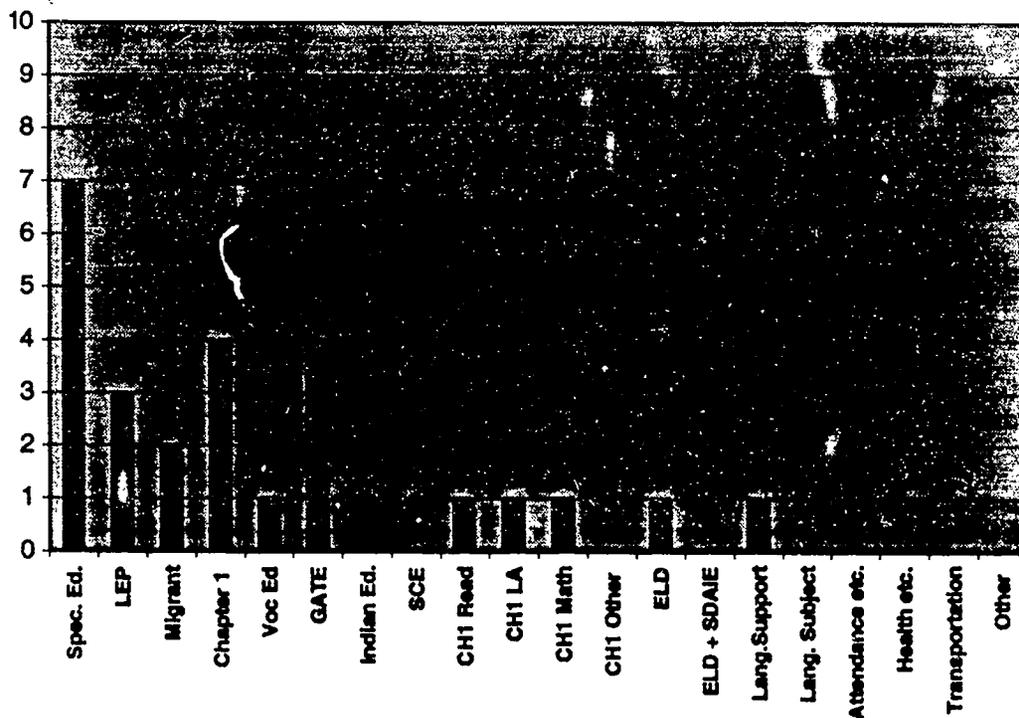
**Student outcome data.** Student outcome data depends on collecting information over a span of time, e.g. graduates and dropouts for the span of the prior year, A-F graduates which encompass four years of academic course work, date of redesignation as fluent English proficient (for a count of students redesignated since the prior year language census), and year-to-year test results (pretests and posttests) to assess student academic progress (for Chapter 1 program evaluation). These data were considerably more difficult to obtain for AIRS because it usually entailed access to data maintained in separate data files—archived files of prior year data for graduate and dropout information, separate data file or separately maintained database for testing information. Collecting student outcome data often presents difficulties for school districts. From the point of view of the SIS snapshot, there is an after-the-fact quality to student outcome information such as graduation. Many districts do not keep prior year information on-line. Typically a batch process upgrade is performed during the summer to move students from the prior year grade to the next grade and to the projected next school of

enrollment, seniors are often upgraded to grade 13 at this time. As a part of this process, school registrars may routinely enter a "left graduated" enrollment status code for twelfth graders, regardless of whether students have actually met graduation requirements. Even in districts which do maintain "old grads" on-line, there are questions about the accuracy of graduation status codes. In either case, a fair amount of reconciliation is done by hand for current CBEDS reporting and the resulting information is typically not entered on an archived automated record system.

In many cases, data required for AIRS was located in several separate data files, but the data submission was drawn only from a single student information file. Span-of-time data required extra steps to collect, adding another layer of complexity for submitters that often exceeded the time and personnel resources available for AIRS.

Figure 4

### Program Participation

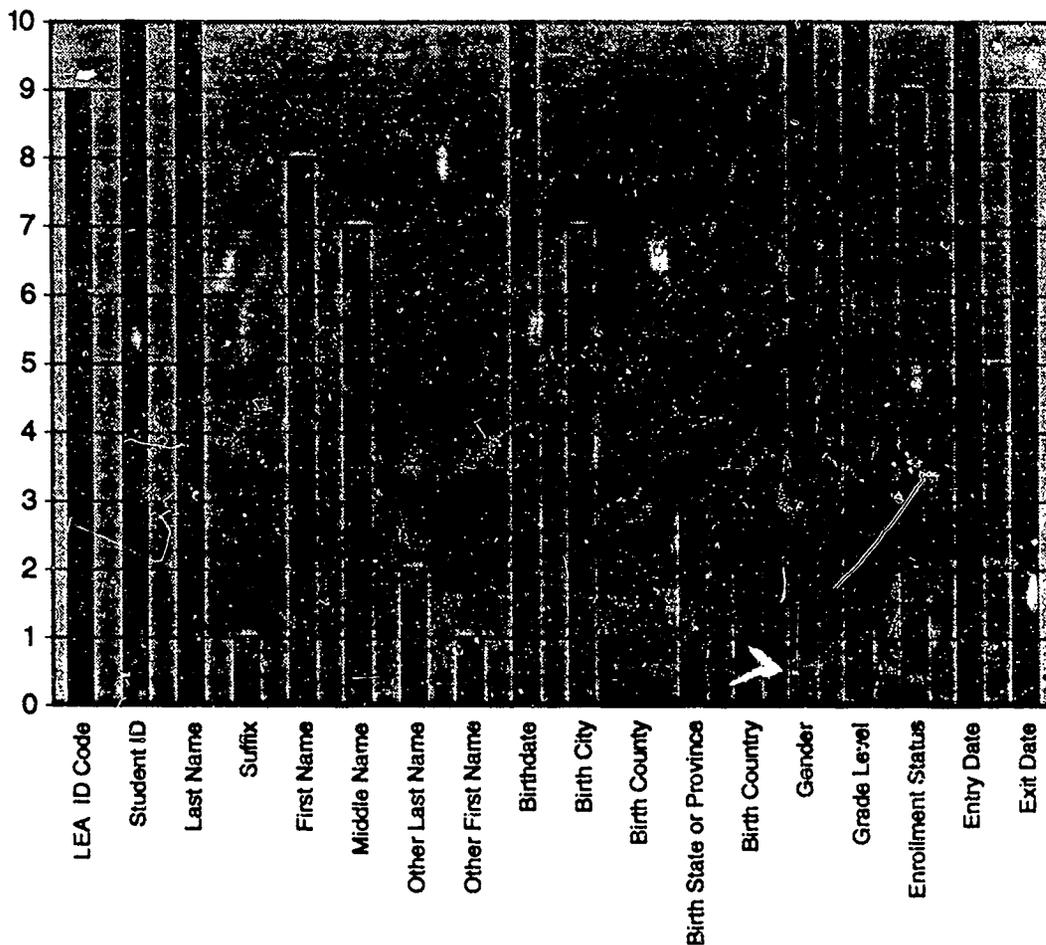


**Student program participation data.** The first eight elements identify student participation in categorical programs, while the remaining 12 elements are service delivery categories for two programs: Chapter 1 and LEP. Mirroring earlier findings from the CDE review of data management,

no single person at the LEA level had a complete understanding of who collected and maintained specific kinds of data; likewise, no single person was knowledgeable about the coding structure for program-specific data collections. Based on the AIRS experience, local SISs were characterized by fragmented, decentralized data maintenance built around program-by-program funding and reporting requirements, which was exacerbated by lack of staff knowledge about data available in other local databases.

**Figure 5**

**Core Linking Elements in an Archived Record System**



**Core linking elements in an archived record system.** These are the Student Directory elements specified for use in a state archived record system and represent core linking elements to eliminate duplicate records for a single reporting period and identify matches for longitudinal purposes. As described in *A Review of the Confidentiality, Privacy and Security of Student*

*Records in the Information Age in California*, one important way to ensure student privacy is to use a set of core elements to produce system-assigned *anonymous* identifiers so that *personal* identifiers, such as student names, are not available to the system's users.

LEA ID code, student ID, birthdate, gender, grade level, enrollment status, entry and exit dates have been described above; the remaining elements are student name components and birthplace components. Student names were universally available. Varied local formats could be accommodated using the AIRS format, however, we strongly recommend that LEAs which maintain student name as a single field containing first, middle and last name (as did two participant districts), move to a system specifying at least first and last names as separate fields.

Birthplace information was maintained in local systems in ways that could be parsed into the specified AIRS format. Typically, LEAs code birthplace as a single field, using the following algorithm: if birthplace is within California, enter city name; if birthplace is within the US but not in CA, enter state name; if birthplace is not within the US, enter county name. Birthplace is not a well-maintained field for LEAs; there is no standard for entering place names (e.g. Los Angeles, LA, CA) so there is a great deal of within-LEA variance as well. A strong effort to communicate the value and need for the component elements and coding standards for data entry will be necessary *if* birthplace is to be used as a core element for locating student identification matches and ruling out erroneous matches.

### **Comparison of NGP Recommended Set of Data Elements and AIRS findings regarding data availability and ease of collection.**

The AIRS demonstration project focused on technical feasibility or "proof of concept" and was not intended to define the full data requirements for implementation of a statewide student record system. AIRS identified data elements needed for only a subset of state reporting, so direct findings do not relate to all of the recommended data elements. Nevertheless, AIRS findings regarding characteristics of student information systems and data "effort" with respect to availability and ease of collection, are broadly applicable to any program intent on using existing local information systems for larger reporting purposes.

The NGP Subgroup used the following guiding principles in identifying essential data elements:

First and foremost, record systems must meet school and local education agency needs for managing the educational enterprise.

- Second, record systems should be developed to monitor the progress of both individual and groups of students.

In comparing the NGP Recommended Set of Data Elements with AIRS findings, this report will use these principles as evaluative criteria and also address the following questions:

- Is it compatible with the information contained in existing local student information systems?
- Is it consistent with routine student data maintenance activities?
- Are K-12 student information systems the appropriate data source?

Figure 6

National Education Goal #1

Indicator	Data Elements	K-12 Record Systems
<b>Goal 1: Attendance</b>		
Number of Entering Students with Appropriate Immunizations	Type of Immunization, Date of Immunization, Status of immunization	Yes Not addressed in AIRS
Developmental Well-Being of Students Entering Kindergarten in terms of Five Dimensions:	Developmental Observation and Documentation, Date of Developmental Observation and Documentation	No Not addressed in AIRS
Physical Well-Being;		
Social & Emotional Development;		
Language Usage		
Approaches to Learning;		
Cognitive Learning.		
Developmental Well-Being of Students Entering First Grade in terms of Five Dimensions:	Developmental Observation and Documentation, Date of Developmental Observation and Documentation	No Not addressed in AIRS
Physical Well-Being;		
Social & Emotional Development;		
Language Usage		
Approaches to Learning;		
Cognitive Learning.		
Number of Disadvantaged, Disabled and Other Entering Students Who Participated in National Association for the Education of Young Children (NAEYC) Accredited Preschool Programs (Measures Objective #1)	Name of Preschool Program, Type of Preschool Program; Number of Years in Each Preschool Program, Disability Status, Poverty Status	No Not addressed in AIRS
Number of Entering Students with Low Birthweight	Birthweight	No Not addressed in AIRS
Number of Entering Students Whose Mothers Received Comprehensive Prenatal Care	Month of First Prenatal Care, Extent of Prenatal Care	No Not addressed in AIRS
Number of Students Who Received Routine Health Care Prior to Entering School	Date of Last Routine Health Care	No Not addressed in AIRS
Number of Students Who Received Dental Care Prior to Entering School	Date of Last Dental Care	No Not addressed in AIRS

First and foremost, record systems must meet school and local education agency needs for managing the educational enterprise, i.e., be of tangible benefit for local users. Immunization data is useful to local educators because it is an entry requirement for enrollment. While developmental observations might be useful for entering kindergartners, remaining data items are of little practical value for improving the educational experiences of students. Maintaining ongoing information such

as the date of the last routine healthcare appointment would be burdensome to school staff and of no practical value for day to day educational activities.

Second, record systems should be developed to monitor the progress of both individual and groups of students. While developmental observations might be useful for entering kindergartners, there is substantial cost in maintaining such records throughout an entire school career.

Third, are K-12 record systems the most appropriate source of information from the standpoint of data utility at point of collection?

With the exception of immunization type, date and status, this information is not collected in K-12 student record systems. All of this information is more appropriately collected in public health (e.g. record of live births as source for birthweight) or preschool systems (e.g. developmental observations.) Moreover, the point of data collection, i.e., entry to the school system at age five, is not optimal given the importance of early intervention. From a public health standpoint, it is more useful to determine whether toddlers are immunized according to schedule, rather than determining this retrospectively at age five.

**Figure 7**

**National Education Goal #2**

Indicator	Data Elements	K-12 Record Systems	AIRS Findings
High School Graduation Rate	School Exit Date, Status upon Exit, Type of Credential Received, Cohort Year	Yes	1 of 10
High School Graduation Rate of Minorities and Non-Minorities (Measures Objective 2)	School Exit Date, Status upon Exit, Type of Credential Received, Cohort Year, Race/Ethnicity	Yes	1 of 10
Other High School Completer Rate	School Exit Date, Status upon Exit, Type of Credential Received, Cohort Year	Yes	Not Addressed in AIRS
Other High School Completer Rate of Minorities and Non-Minorities (Measures Objective 2)	School Exit Date, Status upon Exit, Type of Credential Received, Cohort Year, Race/Ethnicity	Yes	Not Addressed in AIRS
Dropout Rate	School Exit Date, Status upon Exit, Cohort Year	Yes	1 of 10

**Student outcome data.** Student outcome data depends on collecting information over a span of time, e.g. graduates and dropouts for the span of the prior year, A-F graduates which encompass four years of academic course work, date of redesignation as fluent English proficient (for a count of

students redesignated since the prior year language census), and year-to-year test results (pretests and posttests) to assess student academic progress (for Chapter 1 program evaluation). These data were considerably more difficult to obtain for AIRS because it usually entailed access to data maintained in separate data files—archived files of prior year data for graduate and dropout information, separate data file or separately maintained database for testing information. Low data submission rates should not be construed as a lack of availability in student information systems. Most submissions just scratched the surface of the data that are potentially available in local student systems. In many cases, data required for AIRS was located in several separate data files, but the data submission was drawn only from a single student information file. Span-of-time data required extra steps to collect, adding another layer of complexity for submitters that often exceeded the time and personnel resources available for AIRS.

Figure 8

National Education Goal #3

Indicator	Data Elements	K-12 Record Systems	AIRS
Number of Students Achieving National/International Standards by Subject	Name of Assessment, Assessment Score	No Not Addressed in AIRS	
Number of Minority and Non-Minority Students Achieving National/International Standards by Subject (Measures Objective 1)	Name of Assessment, Assessment Score Race/Ethnicity	No Not Addressed in AIRS	
Number of Students Taking Advanced Placement Courses	Name of Advanced Placement Course Taken	Yes Not Addressed in AIRS	
Number of Students Taking Advanced Placement Tests	Name of Assessment	Yes Not Addressed in AIRS	
Number of Students by Score on Advanced Placement Tests	Name of Assessment, Assessment Score	Yes Not Addressed in AIRS	
Number of Students Participating in Volunteer or Community Service Activities	Type of Volunteer or Community Service Activities	Yes Not Addressed in AIRS	
Number and Extent of Students Participating in Volunteer or Community Service Activities	Hours per Week of Volunteer or Community Service	Yes Not Addressed in AIRS	
Number of Courses Taken in English, Math, etc.	Course Titles or Course Numbers	Yes	3 of 10
Number of Higher Level Courses Taken	Course Titles or Course Numbers	Yes	3 of 10
Number of Students Making High Grades by Subject	Course Titles or Course Numbers, Academic Grade Received	Yes Not Addressed in AIRS	
Number of Students Involved in Extracurricular Activities	Type of Extracurricular Activity	Yes Not Addressed in AIRS	
Number of Students Who are Competent in More than One Language	English Proficiency, Language Other Than English, Other Language Proficiency	Yes Not Addressed in AIRS	
Number of Students Registering to Vote at Age 18	Age, Registered to Vote	No Not Addressed in AIRS	

While course information is generally available in local systems, it is recorded in the form of local codes. Translation from local course codes to the state standard was a significant barrier.

In addition to lack of uniform course codes, course information frequently is kept in separate data files. For three districts, local course codes were mapped to CBEDS equivalent codes using the ExPRESS.Cal software. While another district's local course information was available, course numbers were different for each high school and junior or middle school and the task of mapping all course information for the very large data set was not possible in the time available. One district's course information was kept in a separate data file and was not extracted for the AIRS data

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submission and, therefore, was not available to map to CBEDS codes. Another district kept local course information in a separate data file but this information was not linked to individual students due to lack of a common student ID number. One COE had fields to record course information, but this was not maintained due to the annual effort required.

Figure 9

### National Education Goal #4

Indicator	Data Elements	K-12 Record Systems	AIRS Findings
<b>Number of Students Achieving National/ International Standards in Math and Science</b>	<b>Name of Assessment Scores</b>	No Not Addressed in AIRS	
<b>Number of Students Taking Higher Level Courses in Math and Science</b>	<b>Course Titles or Course Numbers</b>	Yes	3 of 10
<b>Number of Students Taking Advanced Placement Courses</b>	<b>Name of Advanced Placement Course Taken</b>	Yes Not Addressed in AIRS	
<b>Number of Students by Score on Advanced Placement Tests</b>	<b>Name of Assessment, Assessment Scores</b>	Yes Not Addressed in AIRS	
<b>Number of Minutes Spent in Math and Science Courses</b>	<b>Course Title, Number of Minutes per Course</b>	Yes Not Addressed in AIRS	
<b>Number of Teachers Instructing Classes for Which They are Certified</b>	<b>Subject Matter Area, Level of Assignment, Type of Certification/ License/Permit Held, Level Authorized by the Certificate, Teaching Fields or Areas Authorized</b>	Yes Not Addressed in AIRS	
<b>Number of Teachers by Subject by Credit Hours Earned</b>	<b>Subject Matter Area, Number of Credit Hours Earned or Courses Completed in Major Area</b>	Yes Not Addressed in AIRS	
<b>Number of Teachers by Years of Experience</b>	<b>Total Number of Years of Teaching Experience</b>	Yes Not Addressed in AIRS	
<b>Number of Minority and Female Students Completing Degrees in Math, Science, and Engineering (Measures Objective 3)</b>	<b>Type of Degree or Credential Awarded, Area of Specialization, Race/Ethnicity, Gender</b>	Yes Not Addressed in AIRS	

**Enrollment in Selected High School Courses:** Selected courses—Intermediate Algebra/Algebra II, any other 3rd or 4th year advanced math course, Chemistry - 1st year, Physics - 1st year—provided summary indicators of student participation in high school science and mathematics curricula and progress in coursework for college entry and careers in science and math. As a student-level data collection, the decision was made to collect CBEDS codes for all currently enrolled courses, not just the designated science and math courses selected for CBEDS-SIF reporting. In conjunction with the expanded information available in a student-level data system, course coding data provide potential for analyzing course-taking patterns and understanding curricula barriers at particular school sites and among particular student subgroups.

Some districts included in their student systems a CBEDS-equivalent code for each of their high school course offerings. This is at least an annual effort by districts because course offerings change from one year to the next. However, lack of uniform local course codes between high schools within districts impedes this effort; and the problem is further compounded for regional centers which handle data processing for multiple districts. (One of the COEs had a slot for CBEDS-equivalent code but it was not maintained due to the effort required.)

Three AIRS participants were able to map their local course numbers to the CBEDS codes and provided the data requested for AIRS. Several other participants indicated that this information was constructible from student's course schedules though this information was not extracted for AIRS data submission and, subsequently, was not available to map to the CBEDS codes.

Figure 10

National Education Goal #5

Indicator	Data Elements	K-12 Record Systems
Number of Minority Students Entering College (Measures Objective 4)	Postsecondary Institution Attended, Type of Postsecondary Institution Attended, Race/Ethnicity	No Not Addressed in AIRS
Number of Minority Students Completing Degree Programs (Measures Objective 4)	Type of Postsecondary Institution, Type of Degree or Credential Awarded, Area of Specialization, Race/Ethnicity	No Not Addressed in AIRS
Number of Students Scoring High on College Entrance or Placement Tests	Type of Entrance or Placement Test, Entrance or Placement Test Score	No Not Addressed in AIRS
Number of Students Employed After Graduation	Employment Status	No Not Addressed in AIRS
Number of Students Employed After Graduation by Type of Employment	Employment Status, Type of Employment, Name of Employer	No Not Addressed in AIRS
Number of Students or Ex-Students Registered to Vote	Registered to Vote	No Not Addressed in AIRS

Postsecondary information about students participation in the workforce or higher education matriculation and degree accomplishment obviously cannot improve the education experience for that individual student. While feedback concerning such information may enable a K-12 institution to improve their educational programs, the cost of collecting and maintaining massive amounts of after-the-fact data will far outweigh any perceived benefit.

Does K-12 have a source for this data? Why replicate data from more appropriate and reliable sources in postsecondary and employment information systems. That is, devise means for linking records between systems, don't replicate information. A comprehensive student information system that enabled postsecondary institutions to report back to K-12 institutions information about the academic preparation and progress of their graduates--using data already maintained in postsecondary systems--would be warmly received, provide some reciprocity in the flow of information and obviate the need for redundant collection of post hoc data.

**Figure 11**

**National Education Goal #6**

<b>Indicator</b>	<b>Data Elements</b>	<b>K-12 Record Systems</b>
<b>Number of Offenses in School</b>	<b>Type of Offense Reported, Date of Offense Reported</b>	<b>No</b>
		<b>Not Addressed in AIRS</b>

Procedures for school crime reporting are currently under development in California.

**Conclusions**

“First and foremost, record systems must meet school and local education agency needs for managing the educational enterprise”. Redundant data collection of preschool information, dates of routine health care appointments, postsecondary education participation and outcomes, and postsecondary employment information are not viable data elements for K-12 student information systems for this reason. K-12 participation in a voluntary system will be dependent upon the system’s ability to positively impact the day to day operations of a classroom and a school. Unless this is true, the collection and entry of data by those at that level will be considered burdensome and carried out hastily or at their leisure, if at all. The end result is data whose quality (i.e. completeness, accuracy and timeliness) suffers, rendering it useless to administrators, researchers and teachers alike. If a voluntary system is going to produce reliable information, maintenance at the school and classroom level must result in more time and resources for direct services for children and produce data of real practical value. Collection of data to measure progress toward achieving the national goals must not become a data burden that impairs the usefulness of local information systems.

With respect to the second guiding principle, “Second, record systems should be developed to monitor the progress of both individual and groups of students”, we agree with the premise, but want more specificity about the extent to which “monitoring the progress” entails accountability for student outcomes. Accountability requires more and better information about students’ experience in the school system and their participation and progress in educational programs. Concern over educational quality in the context of dwindling resources also translates into a demand that educational agencies become more accountable for demonstrating that educational

expenditures pay off in terms of improved student performance. Accurate data about students with specific characteristics, for example, students with limited proficiency in speaking English, dropouts, or students in vocational education programs, is needed to allocate resources and evaluate the effectiveness of programs targeted toward these students. An indicator system that simply reports the number of students in various categories, rather than following particular cohorts, is unlikely to capture the complexity of learning environments, describing the diversity in schooling outcomes within a district or across a larger school community in terms of school processes.

We disagree with the conclusion: "This is best accomplished through the use of a longitudinal student data base with updated information being added to, not replacing, existing data." Student information systems are a point in time snapshot capture of current information. Student mobility alone would limit the usefulness of a longitudinal system, not to mention the exponential, insupportable growth in the size of a student record.

What is needed is careful design of data elements to provide historical information<sup>4</sup> and a system for linking or matching student records over time and between institutions. Rather than an expensive and redundant effort to collect all the data in K-12 record systems, a comprehensive student information system would link accountability among educational segments. A system capable of examining student progress through preschool, elementary and secondary schools, transitions from secondary to postsecondary education, the transfer among, and retention within the postsecondary segments and identifying differential participation at all educational levels can only be achieved by establishing a set of core linking elements to match records maintained by all segments of the education community and extending to the workplace.

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<sup>4</sup> Example given to support the need for layers of longitudinal history was that of a child whose English Proficiency status was changed to fully proficient with no record that the student had formerly been classified as limited English Proficient. However, this information is typically preserved in a current information record by reporting the student's English proficiency status as "Redesignated Fluent English Proficient" along with the date of redesignation.

**APPENDIX A**

**National Goals Panel  
Definitions of Recommended Core Data Elements**

APPENDIX A

DEFINITIONS OF RECOMMENDED CORE DATA ELEMENTS

SET 1- ELEMENTS CURRENTLY EXISTING IN MOST ADMINISTRATIVE  
RECORD SYSTEMS

A. Student Data Elements

BACKGROUND CHARACTERISTICS

Sex - The student's gender (Female or Male).

Racial/Ethnic Group - The general racial or ethnic heritage with which the student most identifies. Categories include: American Indian or Alaskan Native, Asian or Pacific Islander, Hispanic, Black (not Hispanic), and White (not Hispanic).

Date of Birth - The day, month, and year on which the student was born. (Used to compute age.)

Country of Citizenship - The country in which the student maintains citizenship. (Used to identify persons with backgrounds that may lead to different outcomes.)

English Proficiency - The student's adeptness at English, assessed by reading (the ability to comprehend and interpret text), listening (the ability to understand a verbal expression of the language), writing (the ability to produce written text with content and format), and speaking (the ability to use oral language appropriately and effectively) skills. Categories include: fully English proficient, limited English proficient, and not English proficient. ( Used to identify students with potential problems succeeding in US Schools.)

Home Language - The language and dialect routinely spoken in the student's home. This language/dialect may or may not be the student's primary/native language. (Also used to identify students with potential problems succeeding in US schools.)

Language Other Than English - A language and/or dialect other than English in which the student has speaking, writing, reading, or comprehension skills. (Used to identify students who may have potential problems or students who have achieved fluency in more than one language.)

Other Language Proficiency - The student's adeptness in the language other than English. Categories include: proficient and limited proficient. (Used to identify students who may have potential problems or students who have achieved fluency in more than one language.)

Migrant Status - An indication that the child accompanies a parent whose primary employment is in one or more agricultural activities on a seasonal or other temporary basis and who establishes a temporary residence for the purposes of such employment. Categories include: yes or no. (Used to identify students who may have problems in school.)

Type of Primary Disability - The major or overriding disability condition that best describes the individual's impairment (i.e., the impairment that is most disabling). A student may be entitled to receive special education and related services when identified as having a disability. (Used to assess our success with students with special learning needs.)

Type of Immunization - The type of immunization received by the child.

Date of Immunization - The date on which the immunization was received.

Status of Immunization - The status of an immunization (e.g., first inoculation, had the disease; religious exemption)

#### COURSE AND ACTIVITY INFORMATION

Course Title - In a departmentalized organization, the descriptive title by which a course is identified (E.g., English III, Algebra, Biology, Spanish II, Apprenticeship, Career Education); in a self-contained class, any portion of the instruction for which a grade is assigned or a report is made (e.g., reading, arithmetic, language arts). [This information can be used to compute the number of courses taken by subject, the number of higher level courses taken by subject, and the number of advanced placement courses taken.]

Course Number - An identification number or other symbolic designation assigned to a course for identification purposes. Standard course numbers may represent national, state or local coding systems. [This number can also be used to compute the number of courses taken by subject, the number of higher level courses taken by subject, and placement courses taken.]

Academic Grade Received - The letter or numerical grade awarded to a student as an indicator of his or her performance in a course and used, together with other information, to determine the student's grade point average.

Type of Volunteer and Community Service Activities - The type of activity in which service is provided within the school building/district or for the local community outside of the school building for experience not only as workers but also as citizens (e.g., peer tutoring, volunteer work in hospitals).

Hours per Week of Community Service - The number of hours per week the student participates in volunteer or community service activities.

Type of Extracurricular Activity - The type of activity not directly related to the curriculum that a student takes in which the student participates for his or her enjoyment. Extracurricular activities are managed and generally operated under the guidance of an adult or staff member, are not for credit or required for graduation, are conducted during other than school hours (or if partly during school hours, at times agreed upon by the participants and approved by school authorities), and with the possible exception of direct costs of any salaries and indirect costs of the use of school facilities, are self-sustaining as all other expenses are met by dues, admissions or other student fund-raising events. (Examples include Camp Fire Girls, Boy Scouts, Boys and Girls Clubs, YMCA, YWCA.)

#### COMPLETION INFORMATION

Cohort Year - The school year in which the student entered the baseline group used for computing completion rates, also known as first term of academic history.

School Exit Date - The date on which the student discontinued schooling.

Status Upon Exit - The explanation as to why the student discontinued schooling.

- Graduation
- Completion of program (e.g., completion of IEP requirements)
- Dropped out (left school, not known to be continuing)
- Expelled
- Death
- Transfer to another educational program
- Transfer to home schooling

Type of Credential Received - A description of the type of credential received upon completion of an educational program (e.g., High School Diploma, Alternative High School Diploma, Certificate of Completion, Certificate of Attendance, General Education Development (GED) **Credential**, **Bachelors Degree**, **Masters Degree**, etc.).

### B. Teacher Data Elements

Subject Matter Area - The subject matter in which the staff members with "Teaching" assignments function.

Level of Assignment - An indication of the grade level(s) taught by the teacher.

Type of Certification/License/Permit Held - The type of legal document giving authorization from the State (or an agency or organization authorized or recognized by the State) to perform services for the LEA. [Could include certification received from National Board for Professional Teaching Standards]

Level Authorized by the Certificate - The instructional level or levels or levels (e.g., elementary school, middle/junior high school, high school, all level) within which the staff member is authorized to serve by each active certificate held.

Teaching Fields or Areas Authorized - The descriptive name of each teaching field each active teaching certificate held.

Number of Credit Hours Earned or Courses Completed in Major Area - The number of credit hours earned or courses completed by the staff member in each recognized major.

Total Number of Years of Teaching Experience - The total number of years the staff member has held a teaching assignment in both public and private schools. [This may be computed from the dates of previous and current employment, rather than kept as a data element on a database.]

### C. School Data Elements

Course Title - In a departmentalized organization, the descriptive title by which a course identified (E.g., English III, Algebra, Biology, Spanish II, Apprenticeship, Career Education); in a self-contained class, any portion of the instruction for which a grade is assigned or a report is made (e.g., reading, arithmetic, language arts). [This information can be used to compute the number of minutes by different courses or subjects.]

Number of Minutes per Course - The total number of minutes regularly assigned to a course each week.

Type of Offense Reported - A violation or infraction of a specified code established by the legal authorities where the school is located. (e.g., Infraction of school rules, criminal offense, chronic truancy)

Date Offense Reported - The date on which the offense occurred.

SET 2 - ELEMENTS NOT CURRENTLY EXISTING IN MOST ADMINISTRATIVE  
RECORD SYSTEMS

READINESS INFORMATION

Name of Preschool Program - The name of a preschool program attended by the student. Examples include: Head Start, Even Start , Special Education.

Type of Preschool Program - A description of the type of preschool program in which the student participated. Categories include: Day Care/Custodial Care, Developmental/Instructional Program, or National Association for the Education of Young Children (NAEYC) Accredited Program. [If there is no entry in this data element, the assumption that no preschool program was received.]

Number of Years in Each Preschool Program - The number of years the child attended each preschool program described.

Developmental Observation and Documentation - A description of the child's performance on a developmental observation indicating the developmental well-being of a student entering kindergarten or first grade.

Date of the Developmental Observation and Documentation - The month and year on which the developmental observation and documentation was completed.

Birth weight - The weight of the child at birth in pounds or portions of pounds.

Month of First Prenatal Care - The number of the month during pregnancy during which the mother first had contact with a doctor or other medical personnel regarding the pregnancy.

Extent of Prenatal Care - The number of times the mother had contact with a doctor or other medical personnel during the pregnancy of this child.

Date of Last Routine Health Care - The date when the child last received routine health care from a doctor or other medical personnel.

Name of Routine Health Care Provider - The name, if any, of a person or clinic where the child receives routine health care from a doctor or other medical personnel.

Date of Last Dental Care - The date when the child last received dental care.

## ASSESSMENT INFORMATION

Name of Assessment - A classification denoting the name of an assessment given to a student. This name may include information about the subject, version, form, or edition of the assessment assigned by the publisher. (Examples include portfolio assessments, criterion-referenced achievement tests, advanced placement tests, or other types of assessments.)

Assessment Score - A summary expression of the performance of a student on the assessment. [Used to ascertain if a student has attained a high level of proficiency commensurate with international, national, state or local standards.]

## FOLLOW-UP INFORMATION

Employment Status - The degree of participation in the work force (e.g., in school, not employed, employed full-time, active military, employed part-time).

Type of Employment - The type of work or occupation in which the student was engaged after completion of high school.

Name of Employer - The name of the employer for whom the student worked upon completion of high school.

Postsecondary Institution Attended - The name of each institution in which the graduating student plans to enroll or a former student enrolled for post-school education training.

Type of Postsecondary Institution - A description of the type of school attended by the former student (e.g., 4-year college or university, 2-year college, technical institute, school of nursing, trade school).

Dates of Attendance - The inclusive dates of attendance at the postsecondary institution.

Type of Entrance or Placement Test - A description of the type of test given the student for entrance into a postsecondary institution or for placement into appropriate courseware.

Entrance or Placement Test Score - A summary expression of the performance of a student on the test.

Type of Degree or Credit - The type or name of degree or credential awarded a person upon completion of an educational program.

Area of Specialization - The major area studied at the postsecondary institution.

Registered to Vote - An indication that the person is registered to vote.

## APPENDIX B

### CSIS AIRS Functions and Requirements AIRS Data Elements File Layout

**AIRS Functions and Requirements**  
**Appendix B**  
**AIRS Data Elements File Layout**

<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT</u> <u>DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
1	001-008	8	Date	Report Date Report Date						
2	009-022	14	AN	LEA ID Code California CDS code	Y		03.02		67(N104)	
3	023-032	10	AN	LEA Student ID Local student ID	Y		01.02		127(IN105)	
4	033-034	2	AN	Student ID Number Type Code identifying the type of student identification number. (LR is the code for local student ID).			01.01		128(IN104)	
5	035-054	20	AN	Last Name Student Last Name	Y		01.05		93(IN202)	
6	055-057	3	AN	Suffix Student Generational Suffix	Y		01.05		93(IN202)	
7	058-072	15	AN	First Name Student First Name	Y		01.05		93(IN202)	
8	073-087	15	AN	Middle Name Student Middle Name	Y		01.05		93(IN202)	
9	088-107	20	AN	Other Last Name Alternate or former student last name	Y		01.05		93(IN202)	
10	108-122	15	AN	Other First Name Alternate student first name; e.g., anglicized name or nickname	Y		01.05		93(IN202)	
11	123-130	8	Date	Birth Date Student Date of Birth according to student's legal birth registration (CCYYMMDD format)	Y		02.01		1251(DMG02)	

**AIRS Functions and Requirements**  
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<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
12	131-150	20	AN	City of Birth Name of the city where student was born			Y		02.10	19(IND04)
13	151-155	5	AN	County of Birth County within the state where student was born (National Technical Information Service list)			Y		02.09	1096(IND03)
14	156-157	2	AN	State or Province Code identifying the state or province where the student was born (US Postal Service codes)			Y		02.08	156(IND02)
15	158-159	2	AN	Country of Birth Code identifying the country where the student was born (National Technical Information Service list)			Y		02.07	26(IND01)
16	160	1	AN	Gender Student Gender	Y			Y	02.02	1068(DMG03)
17	161-163	3	AN	Ethnicity California Ethnic Code Table	Y			Y	02.04	1109(DMG05)
18	164-165	2	AN	Primary Language Student's native language or language first learned. (Use codes on Language Census).			Y		02.11	819(IND05)
19	166-167	2	AN	Home Language Language spoken at home or language spoken by parents at home. (Use codes on Language Census).			Y		02.13	819(IND07)
20	168-169	2	AN	Grade Level Student Grade Level	Y			Y	06.06	1131(SST08)
21	170-177	8	Date	Entry Date Date student enrolled (CCYYMMDD format)				Y	06.07	373(SSE01)
22	178-185	8	Date	Exit Date Date student last attended school (CCYYMMDD format)	Y			Y	06.09	373(SSE02)



# AIRS Functions and Requirements

## Appendix B

### AIRS Data Elements File Layout

<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
23	186-188	3	AN	Enrollment Status Code indicating active or withdrawn enrollment status, including graduation status. (Table 641: graduat	Y	Y	Y		06.05	641(SST07)
24	189	1	AN	English Proficiency Code indicating level of English proficiency	Y				02.12	1476(IND06)
25	190-192	3	AN	Test Type Identifies particular test or test status; i.e., California State Adopted Test	Y				07.01	1155(TST01)
26	193-200	8	AN	Test Name Acronym for language assessment instrument	Y				07.02	93(TST02)
27	201-208	8	Date	Redesignation Date Date of redesignation from LEP to FEP (CCYYMMDD format)	Y				11.01	1251(OPX04)
28	209-210	2	AN	Special Education Student is participating in a special education program		Y			10.05	1133(OP01)
29	211-212	2	AN	LEP Student is participating in a language program for limited English proficient students		Y			10.05	1133(OP01)
30	213-214	2	AN	Migrant Student is participating in a migrant education program		Y			10.05	1133(OP01)
31	215-216	2	AN	Chapter 1 Eligible Student is eligible to receive ESEA Chapter 1 services		Y			10.05	1133(OP01)
32	217-218	2	AN	Chapter 1 Student is receiving ESEA Chapter 1 services		Y			10.05	1133(OP01)
33	219-220	2	AN	Voc Ed Student is participating in a vocational education program		Y			10.05	1133(OP01)

**AIRS Functions and Requirements**  
**Appendix B**  
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<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMPT/R</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
34	221-222	2	AN	GATE Student is participating in the gifted and talented program					10.05	1133(OP01)
35	223-224	2	AN	Indian Education Student is participating in an Indian education program					10.05	1133(OP01)
36	225-226	2	AN	State Comp Ed Student is participating in a state compensatory education program	Y				10.05	1133(OP01)
37	227-228	2	AN	Reading Chapter 1 reading instruction	Y				10.05	1133(OP01)
38	229-230	2	AN	Language Arts Chapter 1 language arts instruction	Y				10.05	1133(OP01)
39	231-232	2	AN	Math Chapter 1 math instruction	Y				10.05	1133(OP01)
40	233-234	2	AN	Other Chapter 1 other instruction	Y				10.05	1133(OP01)
41	235-236	2	AN	English Language Development English language development instruction (ELD)	Y				10.05	1133(OP01)
42	237-238	2	AN	Specially Designed Academic EL.D and Specially Designed Academic Instruction in English (SDAIE)	Y				10.05	1133(OP01)
43	239-240	2	AN	Primary Language Support ELD, SDAIE, and Primary Language Support	Y				10.05	1133(OP01)
44	241-242	2	AN	Subjects Through the Primar ELD and academic subjects through the primary language	Y				10.05	1133(OP01)

# AIRS Functions and Requirements

## Appendix B

### AIRS Data Elements File Layout

<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
45	243-244	2	AN	Attendance, etc. Chapter 1 support services	Y				10.05	1133(OP01)
46	245-246	2	AN	Health, Nutrition Chapter 1 support services	Y				10.05	1133(OP01)
47	247-248	2	AN	Transportation Chapter 1 support services	Y				10.05	1133(OP01)
48	249-250	2	AN	Other Chapter 1 support services	Y				10.05	1133(OP01)
49	251-254	4	AN	PreTest Name Type E-Comp-TR achievement test code	Y				07.01	93(TST02)
50	255-262	8	Date	PreTest Date Date test administered (CCYYMMDD format)	Y				07.03	1251(TST04)
51	263-266	4	AN	PostTest Name Type E-Comp-TR achievement test code	Y				07.01	93(TST02)
52	267-274	8	Date	PostTest Date Date test administered (CCYYMMDD format)	Y				07.03	1251(TST04)
53	275	1	AN	Score Type Type of score; i.e., normal curve equivalent or percentile	Y				07.15	1160(SRE01)
54	276-277	2	AN	Pre-Read Score value, reading pretest	Y				07.16	352(SRE02)
55	278-279	2	AN	Pre-Math Score value, math pretest	Y				07.16	352(SRE02)

**AIRS Functions and Requirements**  
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<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
56	280-281	2	AN	Pre-LArt Score value, language arts pretest			Y		07.16	352(SRE02)
57	282-283	2	AN	Post-Read Score value, reading posttest			Y		07.16	352(SRE02)
58	284-285	2	AN	Post-Math Score value, math posttest			Y		07.16	352(SRE02)
59	286-287	2	AN	Post-LArt Score value, language arts posttest			Y		07.16	352(SRE02)
60	288	1	AN	Measurement Problem Pretest different from post test or other measurement problem			Y		07.14	1159(SBT03)
61	289-292	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
62	293-296	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
63	297-300	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
64	301-304	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
65	305-308	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
66	309-312	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)



**AIRS Functions and Requirements**  
**Appendix B**  
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<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
67	313-316	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
68	317-320	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
69	321-324	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
70	325-328	4	AN	CBEDS Code Current course enrollment	Y				12.49	127(REF02)
71	329-330	2	AN	Meets UC A - F Student meets state postsecondary entrance requirements	Y				12.54	3(NTE02)
72	331-332	2	AN	Continuation classes Student is participating in Continuation classes program	Y				10.05	1133(OP01)
73	333-334	2	AN	Community Student is participating in a Community/Experienced Based program	Y				10.05	1133(OP01)
74	335-336	2	AN	Opportunity Student is participating in an Opportunity program	Y				10.05	1133(OP01)
75	337-338	2	AN	Magnet Student is participating in a Magnet program	Y				10.05	1133(OP01)
76	339-340	2	AN	Pregnant/parenting Student is participating in a Pregant/parenting program	Y	Y			10.05	1133(OP01)
77	341-342	2	AN	Independent Study Student is participating in an Independent Study program	Y				10.05	1133(OP01)

**AIRS Functions and Requirements**  
**Appendix B**  
**AIRS Data Elements File Layout**

<u>NUM</u>	<u>COLUMNS</u>	<u>LENGTH</u>	<u>DATATYPE</u>	<u>ELEMENT</u>	<u>DESCRIPTION</u>	<u>CBEDS</u>	<u>R30</u>	<u>E-COMP/TR</u>	<u>DIRECTORY</u>	<u>SDHPAGE</u>	<u>EXPRESS</u>
78	343-344	2	AN	Homeschooling Student is participating in a Homeschooling program	Y					10.05	1133(OP01)
79	345-346	2	AN	Other Student is participating in Other program	Y					10.05	1133(OP01)

## APPENDIX C

### **AIRS Data Collection Coding Specifications and Corresponding Student Data Handbook Elements for the CBEDS School Information Form (SIF)**

# **AIRS Data Collection Coding Specifications and Corresponding Student Data Handbook Elements for the CBEDS School Information Form (SIF)**

## *A. Number of Classified Staff*

Section A. collects information about the number of classified staff in three categories (Paraprofessionals, Office/Clerical Staff, Other Classified Staff), according to full or part-time employment status, by gender and seven racial/ethnic categories.

This staff information will not be collected as part of the AIRS demonstration pilot of a *student* level information system.

One possible future method for collection would be to compile this staff information as a part of an annual school profile information collection.

## *B. School Enrollment*

SIF: Report, by gender, grade level and ethnic group, the current total unduplicated enrollment as of Information Day. Refer to the Glossary of Terms for "grade 12", "other elementary", and "other secondary" definitions.

CBEDS definitions:

### **Grade 12 (Senior):**

On February 14, 1986, the State Board of Education adopted the following definition for high school senior:

A senior (grade 12) is anyone who has completed at least 65 percent of the units required for graduation in his or her district and is expected to graduate before the beginning of the next school year.

The district may set its required units standard higher than 65 percent if the standard is common to all high schools in the district.

The student is expected to graduate with his or her class either in spring or over the summer. An ambitious junior who has acquired 65 percent of the district required units would not be considered a senior.

### **Other Elementary:**

Other elementary means any students in kindergarten through grade 8 and in an ungraded program. These may include special education students or students enrolled in continuation classes.

### **Other Secondary:**

Other secondary means any students in grades 9 through 12 (excluding adults) in an ungraded program. These may include special education students or students enrolled in continuation classes.

### Special Education Reporting

The special education student, who is mainstreamed into the regular school program, can be reported in the grade appropriate to his or her level. School districts with special education students may report them on CBEDS in either "other elementary" or "other secondary", if the student is in an ungraded program. Districts should report only those students who are enrolled in kindergarten through grade 12.

AIRS data element (from layout) and corresponding Student Data Handbook page and element.

**AIRS File Layout**  
**Element # and Name**

**Student Data Handbook**  
**Page # and Element Name**

(11) Birthdate	02.01 Birthdate
(16) Gender	02.02 Gender
(17) Ethnicity	02.15 National or Ethnic Origin
(20) Grade Level	06.06 Student Grade Level
(23) Enrollment Status (B30 or B34)	06.05 Enrollment Status (B30 or B34)

### C. High School Graduates (1993-94)

SIF: Include summer graduates (1994) but do not include students with high school equivalencies (i.e., GED or CHSPE). (Sorted into gender and race/ethnicity columns).

AIRS data element (from layout) and corresponding Student Data Handbook page and element.

**AIRS File Layout**

**Element # and Name**

**Student Data Handbook**

**Page # and Element Name**

(16) Gender	02.02 Gender
(17) Ethnicity	02.15 National or Ethnic Origin
(20) Grade Level (HG)	06.06 Student Grade Level
(22) Exit Date	06.09 Exit Date
(23) Enrollment status (B18, B19, B26)	06.05 Enrollment Status

A certain level of redundancy is built in by identifying graduates both by grade level and enrollment status indicators.

Status Reason Code B series is linked with enrollment status, or less broadly, with 06.01 High School Graduation Type in the SDH); D series covers much of the same territory, but is associated with Reason for Exit. Conceivably, any of these would be appropriate in this instance. Rather than collecting duplicate information and a potential source of discrepant data, we would collect this information once in the broadest category, i.e., enrollment status.

06.01 High School Graduation Type would also require reporting additional information beyond current CBEDS reporting requirements.

### D. High School Graduates Completing "a-f" Subjects

SIF: High School Graduates Completing "a-f" Subjects - Completion of *all* University of California requirements.

CBEDS definition:

The "a-f subjects" refer to high school courses certified by the school principal as meeting the course requirements for admission to the University of California.

**AIRS:** Previous information identifying graduates plus (70) Meets UC a-f.

**SDH:** Previous information identifying graduates plus AWD segment in Academic Summary. TO BE ADDED to SDH.

### E. Enrollment in Selected High School Course (grades 9-12)

SIF: Number of 9-12th graders enrolled in Intermediate Algebra/Algebra II, Any other 3rd or 4th year *advanced* math course, Chemistry - 1st year or Physics - 1st year, by gender and ethnicity.

#### **AIRS File Layout Element # and Name**

(16) Gender  
(17) Ethnicity  
(20) Grade Level  
(23) Enrollment Status (code B34)  
(61) CBEDS Code  
(62) CBEDS Code  
(63) CBEDS Code  
(64) CBEDS Code  
(65) CBEDS Code  
(66) CBEDS Code  
(67) CBEDS Code  
(68) CBEDS Code  
(69) CBEDS Code  
(70) CBEDS Code

#### **Student Data Handbook Page # and Element Name**

02.02 Gender  
02.15 National or Ethnic Origin  
06.06 Student Grade Level  
06.05 Enrollment Status  
12.49 Course Number (identified as  
CBEDS course code)

AIRS will collect the CBEDS course code for up to ten courses for currently enrolled students as of CBEDS information day. Selected courses will be identified as follows:

CBEDS definition:

Intermediate Algebra/Algebra II corresponds to assignment Codes 2404 and 2408.

Other 3rd- or 4th-year advanced mathematics correspond to Assignment Codes 2406, 2407, 2409 through 2417, 2480 and 2481. Note: 2418 should be included if an advanced course content is offered.

Chemistry and Physics correspond to Assignment Codes 2607 and 2613 only and not to advanced courses in these subject areas.

Note that 12.49 Course Number is a repeating element that corresponds to the ten occurrences of CBEDS code in the AIRS file layout.

*F. Vocational Education Enrollment (grades 7-12)*

SIF: Number of 7-12th graders enrolled in vocational education courses, by grade level, gender and seven racial/ethnic categories.

AIRS data element (from layout) and corresponding Student Data Handbook page and element.

**AIRS File Layout  
Element # and Name**

**Student Data Handbook  
Page # and Element Name**

(16) Gender	02.02 Gender
(17) Ethnicity	02.15 National or Ethnic Origin
(20) Grade Level	06.06 Student Grade Level
(23) Enrollment Status (code B34)	06.05 Enrollment Status
(33) Voc Ed (code 7)	11.01
(61) CBEDS Code	12.49 Course Number (identified as CBEDS course code)
(62) CBEDS Code	
(63) CBEDS Code	
(64) CBEDS Code	
(65) CBEDS Code	
(66) CBEDS Code	
(67) CBEDS Code	
(68) CBEDS Code	
(69) CBEDS Code	
(70) CBEDS Code	

AIRS will collect the CBEDS course code for up to ten courses for currently enrolled students as of CBEDS information day. Vocational education courses will be identified by CBEDS course codes 4000-5900 inclusive. Vocational education participation will also be noted as a program participation code

Note that 12.49 Course Number is a repeating element that would correspond to the ten occurrences of CBEDS code in the AIRS file layout.

*G. Dropouts (1993-1994)*

SIF: This section reports the number of prior year dropouts for grades 7 through 12 by grade level, gender and ethnicity.

CBEDS Definition:

Based on Education Code § 54721, the Department defines a high school dropout for CBEDS data collection as a person who meets the following criteria:

- was formerly enrolled in grades 7,8,9,10,11, or 12
- has left school for 45 consecutive school days and has not enrolled in another public or private educational institution or school program
- has not re-enrolled in the school
- has not received a high school diploma or its equivalent
- was under twenty-one years of age
- was formerly enrolled in a school or program leading to a high school diploma or its equivalent

Districts must consider students as potential dropouts, if their 45th day of consecutive non-attendance occurred between the opening day of school in the fall of 1993 and the closing day of school in the spring of 1994. For CBEDS reporting, these students are to be officially reported as dropouts if they have not returned to school by Information Day in October, 1994. Thus, students who had left school for more than 45 days, but returned prior to Information Day in 1994, are not to be reported as dropouts.

The Department maintains a policy regarding dropout verification which accepts documentation other than transcripts as evidence that students, who have left school for more than 45 days, are enrolled in other institutions of higher learning or have received a high school diploma or its equivalent. The documentation must be received from a responsible adult having knowledge of the student's status.

Districts are responsible for determining the status of their "no-show" students. "No-shows" are students who completed any of grades 7 through 11 during the 1992-93 school year, but who did not begin attending the next grade in the school to which they were assigned or in which they had pre-registered or were expected to attend in the fall of 1993. It is important to verify if a no-show is a dropout or merely attending a school other than the school where they were expected. If you establish that a fall 1993 "no-show" student assigned to your school is a dropout, you are responsible for reporting that student as a dropout on the October 1994 CBEDS report.

Unless a district has year-round schools, summer school should not be counted as part of the non-attendance days. Deceased students are not to be reported as dropouts. Students who have left school for more than 45 days and who are twenty-one years of age, or older are not to be reported as dropouts.

Expulsions are to be counted as dropouts if the student is gone from school for more than 45 consecutive days and has not returned to an educational institution or program prior to the next reporting period.

AIRS data element (from layout) and corresponding Student Data Handbook page and element.

**AIRS File Layout**  
**Element # and Name**

**Student Data Handbook**  
**Page # and Element Name**

(16) Gender	02.02 Gender
(17) Ethnicity	02.15 National or Ethnic Origin
(20) Grade Level	06.06 Student's Grade Level
(22) Exit Date	06.09 Exit Date
(23) Enrollment Status (B52)	06.05 Enrollment Status (B52)

Code and definition requested for B52 - "According to established regulations, or statutes, the student is considered to be a dropout".

### *H. Alternative Education*

#### Types of Programs/Educational Options

SIF: Number of students enrolled in eight categories of alternative education programs by level: elementary (K-8) and secondary (9-12).

#### CBEDS definition:

Alternative education is a course of study prescribed by the Education Code which is different from and is an alternative to conventional instruction (see E.C. § 51225.3 (b)). For the district, it may be mandated (as in a continuation high school) or optional (as with independent study, a "magnet," or a partnership academy). For pupils and teachers, an alternative school or program provides an option in which participation is voluntary.

The categories within which students in alternative educational programs are to be reported on the School Information Form are discussed below:

Continuation Classes are classes which meet the mandate for continuation education. These classes are maintained for students enrolled in the comprehensive high school and are held on the comprehensive high school campus.

"Community/experience based" means any instructional program that is based in the community, including community service, internship, city (or community) as school, school without walls, and experience or field-based education.

"Opportunity" means any instructional program that is established pursuant to E.C. § 48630-48637 and is not a permanent alternative to regular education.

"Magnet" means any program or school within a school designed to attract students away from their school of residence that is established and operates on the basis of a particular curriculum theme and/or a particular instructional mode or structure, and may or may not be intended for achieving racial balance.

"Pregnancy/Parenting" refers to the total number of identified pregnant/parenting female and expectant/parenting male pupil who receive specialized services (i.e., child care, classes, counseling, case management, etc.) through the school or program in which they are enrolled. Count each student only once.

"Independent Study" is an individualized education plan designed to meet the student's needs. As part of this plan, the student may enter into an agreement (contract) with the district to complete specific assignments under the supervision of a teacher.

"Home Independent Study" refers to a district operated independent study used for schooling pupils at home on a continuing basis in which a parent plays a significant role in the pupil's education.

"Other" means all alternative programs or educational options not encompassed by the preceding categories.

**AIRS File Layout  
Element # and Name**

**Student Data Handbook  
Page # and Element Name**

(20) Grade Level	06.06 Student Grade Level
(23) Enrollment Status (code B34)	06.05 Enrollment Status
(72) Continuation classes (code 80)	11.01 Type of Special Program or Service Received
(73) Community (code 81)	
(74) Opportunity (code 82)	
(75) Magnet (code 83)	
(76) Pregnant/parenting (code 84)	
(77) Independent Study (code 85)	
(78) Homeschooling (code 86)	
(79) Other (code 87)	

We added AIRS elements 72-79 as a result of an evaluation meeting with CDE. Alternative education programs will be defined as in the CBEDS manual. Currently there are no counterpart codes in the **SDH**. One outcome of the pilot should be better information about how program participation is organized at a school level or student level.

Number of Graduates meeting High School requirements through Independent Study (1993-94):

SIF: "Number of Graduates Meeting High School Requirements Through Independent Study" is for reporting students who were enrolled in an independent study program and who either graduated from high school or successfully completed a high school equivalency exam (i.e., GED or CHSPE).

**AIRS File Layout  
Element # and Name**

**Student Data Handbook  
Page # and Element Name**

(22) Exit date	06.09 Exit Date
(23) Enrollment status (B24, B25, B54)	06.05 Enrollment Status

Code and definition requested for B54 - "Graduate meeting High School requirements through Independent Study"

*I. Year-round school*

**SIF:** Check "Yes" if any part of the school is year-round.

**AIRS:** This information will be collected as part of the school participant table profile.

*J. Attendance Area Served By School*

**SIF:** Check only one. Response options are Rural, Suburban and Urban.

**AIRS:** This information will be collected as part of the school participant table profile.

*K. Grade Span*

**SIF:** What are the grades offered by your school? Response options are Lowest grade and Highest grade.

**AIRS:** This information will be collected as part of the school participant table profile.