California Dropouts

A Status Report

CALIFORNIA STATE DEPARTMENT OF EDUCATION
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I. INTRODUCTION

This study of California dropouts has been prepared by the Special Studies and Evaluation Reports unit of the Program Evaluation and Research Division, California State Department of Education,[1] in accordance with the Supplemental Report of the 1985 Budget Act, Item #6100-101-890, which states:

> It is the intent of the Legislature that an in-depth study shall be conducted regarding the numbers and characteristics of students who stop attending school before graduating from high school. This study shall be based upon a stratified sample of school districts of sufficient size and scope to ensure that the findings of the study shall accurately measure the statewide dropout rate and shall identify factors which are positively or negatively associated with the probability that a student will complete a high school education.

This study draws on a large body of current research and features the correlates, to the extent known, associated with dropouts. It also details what is known, or more accurately what is not known, about the magnitude of the dropout phenomenon. The study goes beyond what was requested in the Supplemental Report of the 1985 Budget Act in that several additional areas are included: a discussion of various dimensions of dropout and prevention programs and the matching of students with programs, a more complete definition of a dropout, a preliminary analysis of the potential effects of recent California reform efforts on the problem of dropouts, and a description of the Department's efforts related to dropout prevention and recovery.

The study methodology did not include a sampling strategy because, since so few districts routinely or even occasionally collect dropout statistics, stratified sampling would produce only sketchy and fundamentally biased results. Instead, all high school and unified districts were requested to send to the Department any dropout information available in either report form or tabular form. In addition, staff conducted site visits in ten districts in order to collect more detailed information on dropout accounting procedures and to learn about local educational agencies' (LEAs') dropout prevention programs.

Presented in Section II of this report is a description of the reasons that students withdraw from school, including a discussion of "early onset" and "late onset" conditions.

Presented in Section III is a discussion of various features of programs for dropout prevention or recovery, along with some suggestions on how to match students with programs. Six major dimensions of dropout prevention or recovery

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[1] The Department acknowledges the substantial contribution to this report of Professor David Stern, UC, Berkeley, for the preparation of sections II and III.

programs are examined: (1) curriculum and objective; (2) location/auspices; (3) instructional process; (4) staff; (5) related activities; and (6) schedule. This is followed by a discussion, including examples, of how a comprehensive assessment system could be used to indicate which program features would be most suitable for each student.

Summarized in Section IV is the status of dropout accounting procedures in districts across the state, including an examination of dropout estimates and suggestions for an amplified definition of a dropout. While the emphasis on the mechanical aspects of defining and collecting dropout data may seem removed from the central issue of what to do about dropout prevention, the "number" problem is far from trivial--meaningful and reliable data must be available on both the LEA level and a statewide basis to enable educators to make informed judgments about intervention strategies. Note that with the emphasis on school and district data, information on dropouts can be gathered at the state level on a survey basis rather than from a stratified sampling.

Presented in Section V is a discussion of the relationship of educational reforms and the holding power of schools.

Outlined in Section VI are recommendations and recent departmental initiatives in the area of dropout prevention and retention strategies.

The focus of this report is on today's dropout. It is important, however, to keep in perspective the national trends in high school graduation rates over the last 100 years or so. During the years from 1870 to 1970, the proportion of seventeen-year-olds completing high school steadily increased from a mere 2 percent to 76 percent, with exceptional growth beginning in 1920 (National Center for Education Statistics, 1982). During the 1970s and into the 1980s, the national proportion has stabilized at approximately 75 percent. While this is clearly good news, there is an important element of our world which has not stabilized--the work environment. The Committee for Economic Development states in Investing in Our Children (1985):

> The rapid introduction of new technologies and the continuing shift of employment away from manufacturing and towards services are having a profound and irreversible impact on the type of work that today's students will encounter when they enter the job market and on the skills they will need in order to obtain and succeed in productive employment. It is likely that as computers and robotics become increasingly pervasive production tools, the number of manufacturing jobs requiring higher-level skills will be reduced. At the same time, the variety and level of skills needed to design, sell and service manufactured products will probably increase.

The implications of this change are profound, not only for the high school dropout but also for the high school graduate who is unable to compete effectively in today's changing market. The challenge for the schools is one of both quantity and quality; holding power must be increased, but so must the quality of education.

II. VARIOUS REASONS THAT STUDENTS WITHDRAW FROM SCHOOL

There are many reasons that students drop out of school. Written reports on etiological research all emphasize the multiplicity of causes. McDill and others (1985) write of "multiple causes of dropping out," which they group into "factors" related to school, current family obligations and conditions in the family of origin, and the lure of paid work (pp. 418--419). The Assembly Office of Research (1985) said: "Students drop out of school for a variety of reasons: they are not succeeding in school, they want to work, or they are pregnant"; and they run out of time or desire to pass the required courses and the local tests of minimum proficiency. A literature review for the Association of California Urban School Districts (1985) listed 20 known characteristics of dropouts and grouped the characteristics as cognitive, affective, family, and demographic. The State Department of Education has identified 24 personal and family-related characteristics sometimes associated with dropping out and 25 school-related variables. Some of the school variables are obvious warning signs that a student is on the way to dropping out: absenteeism, truancy, frequent tardiness, poor or declining grades, low test scores, limited extracurricular participation, disruptive or rebellious behavior, discipline/suspension/expulsion problems, and others.

Early Versus Late Age at Onset

The usual rubrics for grouping characteristics of dropouts may contain mixtures of causes, symptoms, and symptoms that become causes. For instance, McDill and others (1985) include teenage pregnancy among the "family conditions" associated with dropping out, but knowing that the problem is teenage pregnancy does not tell us what to do about it. It is important to know <u>when the problem begins</u>. Some students are doing fine until they get into trouble as adolescents. Some students have done poorly since the primary grades, including many who were not "intellectually impaired" when they entered school. For these students, some kind of early intervention or change would have been warranted, and later intervention may be more costly. The distinction between early and late onset of problems is important for understanding why students drop out of school. It is also important for planning programs, if certain kinds of problems are concentrated in certain locations.

Unfortunately, some discussions of what to do about dropouts have focused on attempts to reduce the multiplicity of causes to a common denominator, which tends to be an early onset condition. For instance, the California Urban School Districts' task force participants, "based on the practical long-term experiences of their districts, were unanimous in their agreement with the literature--the single most outstanding feature of a dropout is a <u>history of failure in school</u>" (p. 1; emphasis added). This conclusion suggests early onset. The report further states that "the large majority of dropouts start in remedial tracks in the elementary grades." Treadway (1985) also chose to emphasize early onset and early interventions.

This emphasis on early onset is unfortunate because statistical evidence about early onset has been misinterpreted, occasionally, by the researchers themselves. For example, Lloyd (1978) constructed a statistical (regression) model to predict whether or not a student graduated from high school on time, using information on students in third grade. This model gave correct predictions for 76.7 percent of the students. That may sound like a high degree of accuracy, but it is less accurate than predictions based on no model at all. In the group Lloyd studied, 78.3 percent of the students did finish high school on time. Simply "predicting" that every student graduates on time would produce 78.3 percent correct predictions!

Quay and Allen (1982) caution against the temptation to rely on predictive models for designing interventions, in part because the percentage of correct predictions by most models does not exceed the percentage that could be obtained with no model at all. Lloyd's study is a case in point. Another is a study by Wehlage and Rutter (1984). As cited by Treadway (1985), they found that "the strongest predictor of students' eventual decision to drop out was . . . their expectation of educational achievement" (p. 6; emphasis by Treadway). Treadway used this theme in his discussion of early intervention programs. But the Wehlage and Rutter model was designed for predicting persistence among high school sophomores who were part of the High School and Beyond study (National Center for Education Statistics, 1984). Their Table 2 reports 67 percent correct predictions. With no model at all, the percentage of correct predictions would be 86 percent, since only 14 percent of this High School and Beyond sample of sophomores did drop out. Unless predictive models do better than no model at all, their practical use is "problematic," as Quay and Allen (1982) put it.

Quay and Allen also mention the costs of incorrect predictions. If a student is "predicted" to be a dropout, the labelling itself has consequences, not all of them helpful for the child. On the other hand, it does not help to ignore obvious symptoms that a student is having trouble.

In sum, age at onset is important, but neither statistical models using early data on students nor models using later data generally lead to more accurate predictions than those produced with no model at all. Whether most dropouts in fact leave for reasons that arise early or late is still an open question.

Reasons and Responses

In practice, students who are misbehaving or failing in school do receive extra attention from teachers, principals, counselors, and sometimes psychologists or other specialists. Public schools must accept virtually all children and the Education Code is thick with the built-up legislative output from generations of reformers and interest groups concerned about the treatment of those children who do poorly in school. Special funds are available for certain prescribed purposes. All these laws and prescriptions limit and guide the attention of school professionals. They must report on their activities in terms of the laws which authorize them.

However, beneath the bureaucratic terminology is a practical understanding that has also developed over time. While legally authorized programs produce aggregate data, person-to-person practice develops know-how. As Mann (1986) observes, most aggregate data do not incorporate practitioners' understanding. This communication gap hinders practical improvement of procedures for dropout prevention and recovery. The problem is how to blend data with know-how; that is, how to design better techniques for responding to children at risk.

The California Urban School Districts' report emphasized early onset of school failure. Results of standardized achievement tests also show higher proportions of urban elementary schools below national norms in low-income urban areas than in rural or suburban places. The problems of low income, unemployment, racial and cultural discrimination, language barriers, and accompanying conditions that beset many urban schools probably "affect" children even before they are born, and certainly from birth. Confronting this set of early problems afflicting whole communities of children is a constant challenge for the schools and everyone else.

In rural areas children face common problems at a later age, as they become aware of the dominant urban culture. One teacher in Nevada Joint Union High School District said that the district's alternative school finds students suffering from culture shock. Students' anxiety about their place in the big world drives some of them away from regular schools.

Anxiety, along with excitement, is a common feeling among adolescents. They are excited and anxious about finding their place as adults. Schools have much responsibility for the intellectual side of preparation for adulthood. But schools are part of an institutional framework--including minimum wage and child labor laws--which also limits teenagers' opportunities to experience "real life." High school students are fully aware of this. Some resent the school for treating them "like children" and, thus, adding to the difficulty of becoming adults. Some drop out or attend only when they feel like it, while many just drift along, not making waves but also not learning much. (See Wehlage, 1983; Coleman and Husen, 1985; Stern and others, 1985a.) Solutions to this problem include creation of alternative programs that connect academic work more closely to students' practical concerns and restructuring of regular school routines to avoid wasting students' time.

Urban poverty, rural isolation, and anxiety affect whole groups of students. Other problems of a more ontogenetic nature also cause students to withdraw from school. Mental retardation, specific learning disorders, and psychosocial abnormalities may be congenital. Family stress can damage very young children. Family crises also occur when children are older and can disrupt the lives of high school students who previously did well in school. Other reasons that previously successful students may withdraw from high school include pregnancy, pressure to earn money, or desire to spend large amounts of time on something other than regular school--hacking with computers, rock-climbing, or whatever. The Assembly Office of Research found that a large number of California dropouts actually start their senior year in high school, but then drop out needing only a few units to get their diplomas.

For responses to any of these situations, there are various options. The best response would depend on whether the situation is an individual case or a problem affecting a whole community. What kind of supplemental alternative program, if any, is warranted? Should the objective be to get students to cover the same subjects in a different way through regular high school classes or to try remediation aimed at enabling them to pass a high school equivalency examination? What about individual or group counseling? Should the student get some work experience--for pay, course credit, both, or neither? What kind of instructional process is likely to work best, group or individual? What kind of staff are required? Where and when should all of this take place?

As these questions imply, there is a multiplicity of possible responses to students who seem headed toward dropping out of school or have already done so. This makes sense because of the multiplicity of causes. In the next section of this report, we describe various features of existing dropout prevention and recovery programs and return to the issue of how schools decide what response is warranted in different situations.

III. PROGRAM FEATURES AND THE MATCH WITH STUDENTS

Various Features of Programs for Dropout Prevention or Recovery

Most dropout prevention programs have several parts. For instance, Project HOLD, a well-publicized exemplary program which originated in Pajaro Valley Unified School District, offers peer counseling, attendance monitoring, parent counseling, and classroom guidance. For any particular student, one or two of these features may be much more important than the others. And the particular combination of features that is most effective in Pajaro Valley may not be the most suitable package in another location. In general, for purposes of state policy or local planning, it is useful to consider program elements one at a time. Then, rather than consideration of whether to replicate Project HOLD or other exemplary programs in prepackaged form, the question becomes whether a particular feature should be added to the programs already available.

What follows is a partial listing of program elements. The order in which elements are listed here is arbitrary, and the list could be extended or refined. However, this list does include six major dimensions of programs for dropout prevention or recovery. Within each dimension, there are several possibilities. Any program can, therefore, be represented as a six-dimensioned package. Given the choice of features listed here within each dimension, it would be possible to design 25,920 distinct programs, each with a different combination of features! Since choices within some dimensions are not mutually exclusive, the number of conceivable programs is even larger than 25,920. The point is that a vast array of programs are possible.

To illustrate the features of this list, references will be made to actual programs for which there is some evidence of success. However, since the evidence of success pertains to the program as a whole, it is not possible to know which particular features or combination of features actually accounts for the program's success.

Curriculum and Objective

A basic dimension of programs for dropout prevention or recovery is the nature of the curriculum. The major possibilities are a regular academic curriculum leading to a high school diploma, a remedial academic curriculum leading to a diploma equivalent, a specialized vocational curriculum leading to job placement, or a combination of vocational and regular or remedial academic curricula.

Regular academic curriculum leading to a diploma. An example is the Oakland Street Academy, founded in 1973 and administered by the Bay Area Urban League under contract with the Oakland Unified School District. Although many of its students are former dropouts, the Street Academy's test scores for 1982-83 were above the Oakland district's average. Another example is the Welcome Back Project in Elsinore Union High School District. In 1981, students in this project reportedly achieved a 50 percent gain in credits earned toward graduation, compared to their baseline rate of credit accumulation.

Remedial academic curriculum leading to diploma equivalent. Educational Clinics Incorporated has operated its clinics for dropouts in the state of Washington since 1976. As of 1982, its major academic objective was to enable students to pass the General Education Development (GED) examination; 52 percent of 1,824 participants between 1976 and 1982 achieved the objective (Educational Clinics Incorporated, 1982; p. 33). Demonstration of the clinic model in California is now underway, pursuant to SB 65 (Torres) of 1984 (Education Code Section 58550 et seq.). Educational Clinics Incorporated will operate two of the nine demonstration sites. Preparation for the GED examination in California is also offered by many other educational programs and entities, including adult schools, some community colleges and continuation high schools, and the California Conservation Corps and its local counterparts (e.g., San Francisco, Marin, and East Bay Conservation Corps).

In California, an alternative to the GED test is the California High School Proficiency Examination (CHSPE). An individual who passes the CHSPE receives from the state a certificate which is legally equivalent (in California) to a high school diploma. (See Stern, 1982; and Assembly Office of Research, 1985.) Passing the CHSPE is explicitly stated as an objective for students in some continuation schools, independent studies programs, and other programs. An example is Project STOP in Ceres Unified School District.

Specialized vocational curriculum leading to job placement. Within the California public educational system, specific job training is provided mainly by Regional Occupational Centers and Programs (ROC/Ps) and by community colleges. Both of these are available to individuals over age eighteen years who have not obtained a high school diploma or equivalent. Sixteen- and seventeen-year-olds who have not graduated from high school may attend ROC/Ps even if they are not enrolled in a regular or continuation high school--provided that they satisfy the Education Code requirements for continuation education. More commonly, ROC/P students are also enrolled at a regular or continuation high school, where they attend classes part of the day. It is also possible for high school students to enroll concurrently in a community (or four-year) college in order to take vocational (or academic) courses.

Regular academic curriculum combined with vocational curriculum. Many California students take vocational courses in addition to regular academic subjects. The vocational courses may be taken at ROC/Ps; more frequently, they are taken at the regular high school itself--though many vocational classes in the high schools are introductory or explanatory and do not prepare students for actual jobs (Stern and others, 1985b). In these conventional arrangements, the academic and vocational subjects are self-contained, with no explicit relation between them. For instance, teachers do not use problems in the vocational classes to apply concepts taught in the academic classes.

However, significant efforts are currently underway to integrate academic and vocational subjects more closely. One well-documented example in California is the Peninsula Academies program. This program consists of a Computer Academy housed at Menlo-Atherton High School and an Electronics Academy at Sequoia High School, both in Sequoia Union High School District. Both enroll students in grades ten through twelve. In the recruitment of students, priority

is given to those who are economically or educationally disadvantaged and have records of poor attendance and underachievement. Integration of the academic and vocational curricula is an essential part of the program. Teachers worked together to plan the sequence of topics in each course so that the courses would continually reinforce each other. For instance, during one four-hour period for juniors at the Electronics Academy, the study of direct current circuits in electronics class coincides with analysis of electric motors in science class, while in math class the students are given Ohm's law as an example in their study of algebra, and the English class practices capitalization using the electronics lab manual (American Institutes for Research, 1984, p. 56). This integration of theory and practice apparently makes sense to the students and presumably accounts in part for the reduction in their dropout rate (Reller, 1985). With additional funds to support replication (AB 3104, Chapter 1568, Statutes of 1984), the Peninsula Academies model in its entirety is being copied at ten locations.

Another effort to integrate academic and vocational subjects is being undertaken by vocational educators in high schools and ROC/Ps. This effort is a direct response to the high school graduation requirements contained in SB 813 of 1983 and to the model graduation requirements promulgated by the State Board of Education in the same year. The new requirements reduce the amount of time available for students to take electives, including vocational education. In response, vocational educators in some districts have won governing board approval to count certain vocational courses as fulfilling graduation requirements. For instance, students who complete courses in agriculture, drafting, auto mechanics, or word processing may obtain full or partial credit toward meeting graduation requirements in life science, mathematics, physical science, or English, respectively. The California Advisory Council on Vocational Education (1985) has described the equivalencies worked out in several districts. Those equivalencies do not represent the close integration between academic and vocational offerings found at the Peninsula Academies, but the efforts may produce more connection between the two than in the conventional arrangements, in which academic and vocational courses are not systematically related to each other at all.

The relationship between academic preparation and job preparation has been the focus of a number of recent reports from business and education (see, for example, Academic Preparation for the World of Work, published by the College Board (1984); Education Commission of the States: Task Force on Education for Economic Growth (1983); High Schools and the Changing Workplace, by the National Academy of Sciences (1984); and Investing in Our Children, by the Committee for Economic Development (1985).

Remedial academic curriculum combined with vocational curriculum. Some school-based programs offer vocational training along with remedial academic instruction geared to the GED test or CHSPE. Project STOP in Ceres Unified School District is an example.

However, much of the impetus for this kind of program has come from employment-related training efforts sponsored by the state, and especially by the federal government, outside of schools. The federal Economic Opportunity Act of 1964 created the Job Corps, which has now survived more than two decades of changing administrations, massive shifts in strategies for dealing with unemployment, the coming and going of the Comprehensive Education and Training Act

(CETA) and the Youth Employment Development Act (YEDA) with their panoply of programs for employment and training, the coming of the Job Training Partnership Act (JTPA) in 1982, and, most remarkably, the ebbing of popular commitment toward redistributive programs of any kind. Job Corps has survived in part because it has been found to produce benefits greater than its costs (see Taggart, 1981). In its 20-year history, Job Corps has evolved an effective educational program for young people who are not in school, most of whom are not high school graduates. The program is individualized and competency-based (see "Instructional Process"). For participants who test at grade level 7.5 or above when they enter the program, the academic objective is to pass the GED test. Ninety hours of Job Corps instruction has been found to produce average gains of 1.5 years in reading achievement and 1.0 year in mathematics (Taggart, 1981, p. 124).

The kind of intensive techniques developed by the Job Corps for combining vocational training with academic remediation are now being widely diffused through programs sponsored by the federal Job Training Partnership Act. Programs for youth under JTPA must meet performance standards defined in terms of three kinds of competence: preemployment and work maturity, basic education, and job-specific skills. Schools that operate programs with JTPA funds are therefore obliged to adopt this competency-based approach to vocational and remedial academic instruction. For example, the Los Angeles Unified School District's Manpower Development program has produced several volumes of competencies to be used in JTPA training. The volume entitled Basic Education Competencies contains more than 100 "benchmarks" for assessing students' skills in reading, writing, and mathematics. For instance, "The trainee is able to put two consonants together and make a new sound." "The trainee identifies and writes sentences with subject and verb agreeing in number and person." "The trainee adds, subtracts, multiplies, and divides decimal fractions." Other volumes produced by the same office cover vocational English as a second language, preemployment skills used in machine shops, and specific skills for clerical occupations.

Location/Auspices

A second major dimension in which programs vary is where they are located. For participants of high school age, the main choices are the regular high school, another school facility, or some place other than a school.

Regular high schools can be the sites of programs for dropout prevention. To the extent that dropping out is a response to a negative climate in the regular high school itself, dropout prevention must happen there (see "Instructional Process"). Or, if the problem originates with the students rather than in the climate of the high school, but the aim is to help students get back into regular classes, there are advantages in locating dropout prevention or recovery programs at the regular school site (Robbins, Mills, and Clark, 1981). It is also possible that the program for dropouts or students at risk will be so good that it becomes an asset to the regular high school. The Peninsula Academies may have such an effect. Finally, the regular high school may simply be the most convenient or economical place to house a program for actual or potential dropouts.

Other school facilities include continuation high schools, adult schools, ROC/Ps, and community colleges. Each of these locations may appeal to young people who are averse to the regular high school for some reason. Continuation high schools are usually small and cozy, compared to large comprehensive high schools. ROC/Ps, adult schools, and community colleges treat students more like grown-ups. In addition, some individual students simply want to avoid the regular high school because of certain other people there.

Nonschool organizations are especially important as program sites for young people who have already left school without graduating. Educational Clinics Incorporated, which operates remedial academic programs for this group, describes its location in the downtown business district of Everett, Washington, as "a store-front facility which at once conveys the feelings of intimacy and professionalism" (Educational Clinics Incorporated, 1982). Some young people who are not willing to set foot in a school will enter there. The same could be said of other nonschool programs, such as the Center for Employment Training in San Jose or San Francisco Renaissance.

Nonschool sites are necessary because the programs include activities that do not take place in schools, in particular paid employment. Some programs induce young people to remedy their academic deficiencies by providing paid jobs. Conservation corps programs, for example, require participants to spend one day per week preparing for high school equivalency examinations. High schools themselves use this strategy when they enforce California laws allowing young people to work longer hours only when they are enrolled in a formal work experience program, which therefore requires that they be enrolled in high school.

Instructional Process

Another basic difference among programs is that some programs keep students in classroom groups but try to transform social relations in the classroom, while other programs are completely individualized. Often these two approaches are combined, with individuals working on their own separate learning contracts but meeting together in a group for instruction and social support.

Transforming social relations in the classroom has been a major objective of several programs chosen for replication through the National Diffusion Network: Project Intercept in Ossining, New York; the FOCUS program in Hastings, Minnesota; and Project PASS in Pinellas County, Florida. For instance, Project Intercept began with 30 hours of workshops for classroom teachers to broaden their repertoire of techniques for classroom management, constructive discipline, and instruction using multiple modalities of sight, sound, touch, movement, and listening. Continued assistance of this kind enabled teachers to improve the climate of regular high school classes and to "establish a therapeutic remedial academic program for a large number of disruptive potential dropouts" who are placed in separate classes (Maurer, 1982).

The purpose of these interventions is to break the vicious cycle of rebellion and repression that can destroy the climate for learning. Instead of the trust and mutual respect between teachers and students which are necessary for learning to take place, the pathological classroom becomes a scene of psychological warfare. Students heckle while teachers lecture. Sarcasm replaces self-disclosure. Teachers feel compelled to be authoritarian and sometimes

arbitrary (Rollings, 1985; Wehlage, 1983). Students cut classes (Moos and Moos, 1978). The healthy classroom is quantitatively and qualitatively different. Gold and Mann (1984, pp. 61--66) present striking quantitative evidence that in successful programs for disaffected students the interaction consists mainly of students' initiating and teachers' responding--in contrast to conventional schools, where most of the time teachers initiate and students respond. This is one indication of students' taking more responsibility for their own learning.

An unusual qualitative account of the process involved in creating a constructive classroom climate for disruptive students has been provided by Newton, Greenwood, and Sagan (1985). They operated alternative classrooms in two junior high schools in Multnomah County, Oregon, during 1982-83. Students placed in these classrooms were not identified as emotionally or educationally handicapped, but they had caused so much trouble in regular classes that they were on the verge of being expelled. The alternative classrooms were their last chance, and the students knew it. Since this situation is similar to some continuation high schools and other programs in California, it is worth considering the process in some detail. The report by Newton and his colleagues provides an explicit psychological theory of what constitutes a healthy classroom and includes descriptions in students' own words, written during lessons in class or in journals after school.

Giving students an opportunity to write down their responses to class assignments, and then to read them aloud, enables them to reflect on their own behavior. This helps them take responsibility for their own actions instead of blaming others for what happens to them. For instance, a student wrote:

> I came in the room after lunch a little rambunctious. . . . I was not listening . . . but I got the assignment right after the third time. The first two times I wasn't and I pulled myself together and listened to you. (Newton, p. 187; emphasis added)

Rather than seeing themselves as victims of capricious authority when they are punished for something, students are given enough respect and support so that they can own up to what they have done:

> I had to pay a price in PE. My decision was to say a bad word. The results were to do 100 push-ups. (Newton, p. 188; emphasis added)

Part of enabling students to acknowledge their own responsibility is to help them see alternatives available to them in a given situation:

> If what happened yesterday started again, the only thing I would do the same is laugh. . . . What I would do differently is sit quiet and not heckle. (Newton, p. 202)

The theory and techniques used in the Multnomah project, which Newton and his collaborators call Creative Behavior, is intended to enhance students' capacity for rational problem solving in psychosocial matters:

> If I hit him, the problem would be over, but there will be another problem I would have to deal with and that is what would happen. (Newton, p. 207)

The same process of clear labelling and rational reflection also helps students deal with academic matters:

> The . . . math was hard because I don't understand how to divide decimals too well. I have trouble when the divisor is a decimal. (Newton, p. 217)

Having respect for students, helping them take responsibility, and providing alternatives are features of healthy classrooms in many places. One distinctive feature of the Creative Behavior method used in the Multnomah project is its emphasis on "integration"; that is, on enabling students to recognize what they have learned and to believe that they are really more capable than they were before. Students integrate by writing and by regularly celebrating their improvement:

> I feel I earned my celebration real good and all I have to do is make up one assignment and I will get the celebration. The things I did to make this happen was I got all caught up in my work and I didn't get another half-day suspension from spitting on someone. (Newton, p. 212)

In the Multnomah project and other efforts to transform classroom social dynamics, the long-run purpose is to help students function appropriately in regular situations, not for them to become dependent on the support of the alternative program.

Complete individualization is another possibility. Some students cannot attend classes because they have to work full time, take care of children, or have other demands on their time. Other students are simply not willing to participate in group instruction, whether in a conventional or alternative classroom. In California, it is possible for students to pursue the regular course of study for a high school diploma, or to do remedial work in preparation for the GED test or CHSPE, using the mechanism of independent study. This mechanism also enables school districts to count students as part of average daily attendance (a.d.a.) even if they are not attending school (see Stern and others, 1985a; Department of Finance, 1985).

The California Consortium for Independent Study (CCIS) is a nonprofit, member-supported organization composed of teachers and administrators of independent study programs. The 1985 CCIS member directory includes capsule descriptions of more than 90 programs throughout the state. Many districts now have independent study centers, and a few have self-contained high schools where all students are enrolled through independent study. CCIS publishes a handbook with practical advice on how to organize a program and keep track of individual contracts. However, despite its flexibility and usefulness as a means to reach students who have left school without diplomas, independent study accounts for less than 1 percent of statewide a.d.a.

Individual learning contracts combined with group instruction and social support is a very common approach. Students are not completely on their own, as in independent study, but the curriculum is individualized so that students can progress at their own pace. They spend some time working alone, some time in groups working on academic matters, and some time in group discussions of psychosocial issues (see "Related Activities"). Examples of programs using this combined approach include the Oakland Street Academy, Educational Clinics Incorporated, Satellite Academy in New York, CNTB (Foley and Crull, 1984), and Project Welcome Back in Elsinore Union High School District. Many continuation high schools also combine individualized instruction with group classes.

Programs offering self-paced, individualized instruction--including both completely individualized independent study and programs in which students spend some of their time in groups--now employ an assortment of instructional materials and recordkeeping procedures. Some are homemade, and others are purchased. There is a need to provide useful technical assistance to ensure that all programs have access to the most suitable materials. For instance, some independent study programs might make more effective use of techniques developed by the Job Corps for academic remediation.

Staff

Who runs a program has everything to do with the kind of program it is. There are currently no laws or policies regarding preparation of specialists in:

- "Therapeutic remedial academic programs" (Maurer's phrase)
- "Clinic" programs not regulated by SB 65 of 1986 (Education Code Section 58550 et seq.)
- Techniques for dealing with disruptive students who are not identified as handicapped or disadvantaged
- Independent or individualized study programs
- Teaching in "basic education competencies" or "preemployment and work maturity"
- Continuation high schools
- Other programs for dropout prevention or recovery

The establishment of new certification procedures at this time would be unwarranted, particularly in the absence of agreement about what effective practitioners need to know. It would be useful to gather more information on this subject, especially from practitioners.

Currently, most of the professional staff in programs for dropout prevention or recovery are certificated secondary school teachers or counselors in public schools. We have seen no data describing how staff are usually assigned,

but reports of individual programs often assert the benefit of letting teachers volunteer. It seems self-evident that voluntary assignment makes for closer compatibility between teachers' professional interests and the program's purposes. In fact, teachers are often the entrepreneurs who create programs and make them successful.

People other than certificated teachers or counselors also work in dropout prevention or recovery programs. Some noncertificated personnel provide instruction in employment-related programs operated by nonschool agencies or firms. Parents, peers, police, job supervisors, "mentors," and social service workers also play formal roles in some programs.

Related Activities

Instruction is not the only activity in programs for dropout prevention or recovery. Other services are sometimes provided, combined with instruction or by themselves. The two activities other than instruction which occupy large amounts of participants' time are counseling and work. Each of these can take various forms.

Counseling can be provided to students as individuals or in groups. Project Intercept also provides family counseling; this is unusual.

Most counseling for individual students is probably provided informally, by trusted teachers. Formal one-to-one counseling is expensive. Any extended one-to-one counseling in a public school program ordinarily would require some form of special funding. Therefore, when most of the California alternative schools and programs reported to the Assembly Office of Research in 1982 that they were "counseling-based," they probably meant that they provided mainly informal or group counseling. (For discussion of this survey, see Stern and others, 1985a.)

Group counseling can cover a range of personal, interpersonal, academic, and career issues, from how to save a suicidal friend to applying for jobs or college admission. Most dropout prevention or recovery programs that keep participants in groups include discussions of such issues. Group counseling can strengthen students' attachment to the program and thereby promote persistence (Foley and Crull, 1984). Project FOCUS in Hastings, Minnesota, includes a small-group class called Family. In programs for disruptive students like the Multnomah project (Newton, Greenwood, and Sagan, 1985), academic instruction is almost inseparable from group counseling. In various formats, group counseling is sufficiently widespread in the schools that curricular materials have been developed to guide discussions (for instance, see Gerler, 1986).

Work of some kind is the other major activity in dropout prevention or recovery programs. Students may receive pay or course credit, or both, or neither.

In California public schools, students in formal work experience programs receive academic credit in connection with paid jobs. State law now requires each student to have at least one hour a week of related instruction in order to receive academic credit for work experience, but this is not strongly enforced. (For further discussion of the work experience program, see Stern and

others, 1985a.) Students in cooperative vocational education also receive academic credit in connection with paid jobs (see Lotto, 1982, for examples of effective programs). In cooperative vocational education, the teacher in a particular course ordinarily is responsible for relating the student's experience on the job to material covered in the classroom. In contrast, coordinators of work experience programs have supervisory responsibility for students to whom they do not teach any regular class. Integrating on-the-job experience with regular course content is therefore more problematic in the work experience program than in cooperative vocational education.

Unpaid work or service is also a feature of some programs. California ROC/Ps place students in "community classrooms" (i.e., businesses) where students observe and learn and for which they get academic credit but no pay. Some regular high schools also award credit for unpaid work experience. An example is the Carrer-Links Program in Amador Valley Joint Union High School District, which places students mainly in profit-seeking firms. Unpaid work for nonprofit organizations is also included in the curriculum of some programs. The Atlanta, Georgia, public schools have gone so far as to require every student, before graduating from high school, to provide 75 hours of service to an approved nonprofit agency of each student's choice. Students receive credit for a course called Duties to the Community.

In programs for the "marginal high school student," Wehlage (1983) has emphasized the importance and effectiveness of an "experiential curriculum," which may involve students in political/social action, community study, or production of goods or services. Boyer (1983) urged expansion of activities that allow high school students to do something genuinely and immediately useful for other people. Such activities sometimes are sponsored by schools themselves. Foxfire is a famous example (Wigginton, 1986). Restaurants, recycling centers, and child care services where most of the work is done by students are not uncommon (Kohler, 1981). Providing opportunities for students to be useful is analogous to improving the overall climate in a high school; it benefits all students but can be especially important in keeping some students there at all.

Schedule

A program's schedule constrains its activities and influences the composition of its students. The options here are straightforward: full-time versus part-time and short-term versus long-term.

Full-time programs occupy the same amount of students' time each week as regular secondary school does: five or six hours a day, five days a week. Self-contained alternative schools may operate on a full-time basis. The Oakland Street Academy does, though its daily schedule starts at 8:45 a.m. and ends at 12:45 p.m. so that students can hold afternoon jobs. Many continuation school students attend full-time, though by law they are only required to go part-time (see Department of Finance, 1985).

Some short-term programs also may occupy students full-time. Many schools have created detention centers or "time-out rooms" as alternatives to suspension. Students who cut or disrupt classes are sent to these places for periods of time ranging from a few minutes to entire school days for several weeks. They spend

the time on assignments given by their regular teachers, and sometimes they are directed to write plans for correcting their behavior. It is claimed that students benefit more than if they were suspended. The school district also receives credit for the students' attendance. Examples of these alternatives to suspension are the TAP Center in Milpitas Unified School District, the OASIS Project at Jepson Junior High School in Vacaville, the detention room at Redwood High School in Larkspur, and the time-out room of Project PASS.

Part-time programs may be self-contained (for instance, continuation schools). They may also be combined with the regular school program. Detention classes and ROC/P classes are examples of programs designed to be taken in addition to regular classes.

Matching Students with Programs

The multiplicity of causes and possible treatments for dropping out creates the necessity for matching students with programs. At present, matching is not usually done in a very systematic way. Programs that offer individualized instruction must assess their students' strengths and weaknesses, but these assessments are not designed to tell which of all the program features described previously would be most suitable for each student. Only a few program providers have developed any kind of comprehensive assessment to determine what combination of program features would be best for individuals or groups of students. Comprehensive assessment can be used as the basis for referring students to existing programs or for developing new programs.

An example of thorough assessment of students in kindergarten or first grade is the Early Prevention of School Failure project, which started in Peotone, Illinois, and has spread through the National Diffusion Network. A program that provides assessments for high school age students is Educational Clinics Incorporated, which relies mainly on the Peabody Individual Achievement Test (PIAT). Joyce Shepard (1986), a teacher for Educational Clinics, describes how she assesses learning:

> During the general information part of the PIAT, I ask questions of a general nature. When a student asks me to repeat the questions, and has difficulty understanding the questions, he might be exhibiting some auditory confusion or perception. Ideally, tests should be used to determine what element of auditory reception is impaired. This type of student should not be in a class where the teacher primarily lectures. The input would be scrambled, so would his test answers. Other students have great difficulty with the reading comprehension part of the test. This could show visual memory or perception problems. Probably, for this person, a teacher who lectures would be perfect. Sometimes, the auditory and visual are weak. We then have to bring in the tactile senses to help with the memory and comprehension.

Other programs do other kinds of assessment. Employment-related programs do a lot of testing for career awareness and occupational preferences. Programs funded with special education monies do extensive cognitive and sometimes affective assessments.

The problem is not a shortage of tests and diagnostic instruments. The problem is how to use them efficiently to decide what combination of program features would be best for a given student. In San Juan Unified School District, project New Start offers a comprehensive assessment covering cognitive levels and styles, career interests, situational variables, and attitudes toward dropping out. Kern Union High School District has created a new administrative structure to match students with programs and to develop new programs. Grossmont Union High School District has drafted a plan for identifying students at risk and matching them with appropriate treatments. These efforts are in the early stages. Other districts can be expected to attempt similar efforts as a result of SB 65 of 1985.

IV. DROPOUT ACCOUNTING PROCEDURES, DEFINITIONS, AND RATES

In the previous two sections, we examined the reasons that students leave school and discussed various features of dropout prevention and retention programs. We now turn our attention to a problem of a more practical nature--the range of procedural aspects of dropout accounting. We begin by analyzing information gathered from districts across the state that have produced reports on students who leave school. This is followed by a discussion of many of the issues which surfaced in interviews we conducted in ten school districts. Next, we look at several of the varied estimates of the California dropout rate in order to get a perspective of the statewide magnitude of school dropouts. Finally, we offer a tighter definition of what constitutes a dropout in California.

District Reports

A postcard survey was conducted among all unified and high school districts in California. Of the 383 districts contacted, responses were received from 331 (86.4 percent). Eighty-five of the responding districts indicated that they had conducted a study (either formal or informal) on dropouts, and 29 others stated that they were currently addressing the issue. The 85 districts that had completed studies were contacted, and copies of their reports were requested for the purpose of reviewing their findings. Actual reports were received from 42 districts. These reports varied in format and quality: They ranged in length from 1 page to over 100 pages; some were formal board-approved reports, and others were only computer data printouts; almost all defined dropouts differently; and only a few actually conducted follow-ups. To enable the reader to understand better the flavor of these district dropout reports, we highlight five district reports in some detail and present a summary of findings from all the reports.

The five district reports that are summarized represent the variety of concerns and issues facing educators. The districts are Lompoc Unified School District, Oxnard Union High School District, Pasadena Unified School District, Richmond Unified School District, and San Diego City Unified School District.

1. Lompoc Unified School District

Lompoc Unified School District has two regular high schools serving grades nine through twelve and one continuation high school. Enrollment for the district numbers more than 8,700 students, with the three high schools serving about 2,800. The racial/ethnic distribution for the district is 68 percent white, 17 percent Hispanic, 9 percent black, 4 percent Asian or Pacific Islander, 1 percent Filipino, and less than 1 percent American Indian or Alaskan Native.

The attendance area for Lompoc Unified includes the Vandenburg Air Force Base, which adds a transient character to the student body. Some confusion concerning school attendance for sixteen- to eighteen-year-olds

thus arises because most other states have mandatory schooling only through age sixteen years; and some students, when they move into the Lompoc attendance area, have already left school legally in their previous state of residence.

Of the 627 students who at one time or other had been members of the class of 1984, 280 (44.7 percent) received diplomas from Lompoc high schools. In January, 1985, the district presented a report to the Lompoc govering board to account for the 347 (55.3 percent) who had been class members but did not graduate.

A review of school records disclosed that, of the total 627 students, 213 (34 percent) had transferred to other districts, eight (1.3 percent) received alternative diplomas or passed CHSPE, 22 (3.5 percent) did not have enough units to graduate with their class, 38 (6.1 percent) were reclassified, and 66 (10.5 percent) dropped out of school prior to June, 1984.

2. Oxnard Union High School District

Oxnard Union High School District has five regular high schools serving grades nine through twelve and one continuation high school. The district has an enrollment of more than 10,000 students, with an ethnic and racial composition of 48 percent white, 32 percent Hispanic, 12 percent black, and 8 percent representing other ethnic and racial groups.

The Final Dropout Report, Spring Semester 1984-85 was conducted by the district to determine the district's true dropout rate. The study applied the definition of a dropout contained in the State Department of Education's Performance Report for California Schools, Indicators of Quality (1984; p. 24):

> A dropout is defined as any student who has been enrolled in grade 10, 11, or 12 but who left school prior to graduation or completion of a formal education, or legal equivalent, and who did not within 45 school days enter another public or private educational institution or school program, as documented by a written request for a transcript from that institution.

In addition to the grades specified in the Department's definition, Oxnard decided that, for its own study, the definition should be extended to include ninth grade students.

Preliminary findings showed an annual dropout rate of 6.7 percent of the grade nine through twelve enrollment. After extensive follow-up of the identified students, the district's annual dropout rate was adjusted to 2.8 percent.

It was determined that the majority of so-called dropouts had either reenrolled or had been placed in an alternative program. More than half of the true dropouts were at the ninth grade level; however, it is important to note that grade status in Oxnard is determined by credits earned

rather than age. The largest group of dropouts was Hispanics (53 percent), far in excess of the proportion of Hispanics in the district's enrollment. All other racial/ethnic groups identified in the school dropout category were either proportional to their representation in the overall student population or underrepresented.

The study also considered the issue of student enrollment, withdrawal, and reenrollment. Of the students who withdrew, 22.5 percent reenrolled at the same school within the same semester. The report concludes, "Any look at the dropout rate must be seen against this milieu as it reflects a surprising state of flux which keeps students uncommitted and uncertain, a state which is totally beyond the control of the schools."

3. Pasadena Unified School District

The Pasadena Unified School District operates 30 schools, five of which are regular high schools. One of the high schools is a "fundamental" school which contains grades seven through twelve; the other four include grades nine through twelve. The district also has a continuation high school for grades nine through twelve and an alternative school serving students in kindergarten through grade twelve.

The district's total enrollment is more than 22,000, of which approximately 7,000 are high school students. The ethnic/racial composition of the students is black (43 percent), Hispanic (28 percent), white (24 percent), Asian or Pacific Islanders (5 percent), and the remaining 1 percent either American Indian or Alaskan Native.

The Superintendent's Status Report on Efforts to Understand and Control Student Dropout in the Pasadena Unified School District focused on district efforts to monitor, quantify, and understand the incidence of actual student dropouts. For purposes of the study, the district defined a school dropout as follows:

> A "dropout" is any person who leaves school prior to graduation and who does not immediately enter another public or private institution or day school program which leads to a high school diploma. Thus, a dropout includes people formally exempted from enrollment because of marriage, pregnancy, or the military.

The district identified 39 reasons for students' withdrawing from school. These reasons could be divided into two categories: (1) potential reasons for student dropout; and (2) reasons for normal student transfer. When a potential reason for dropping out was stated on the student's withdrawal from school, an intensive follow-up effort was initiated.

The study showed a dropout rate of 5.1 percent in 1983-84 among the regular high schools. When the continuation and alternative schools were included, the rate rose to 6.8 percent. In terms of ethnic/racial categories, the dropout rate among black and white students occurred in the same proportion as their representation in the overall district enrollment. The dropout rate of Hispanics represented a slightly higher proportion (31 percent) than their representation in the total district enrollment.

4. Richmond Unified School District

The Richmond Unified School District includes 61 schools, seven of which are high schools. The total district enrollment is more than 27,300, with approximately 10,300 of these students representing the high school population. The racial/ethnic composition of the district is black (40 percent), white (38 percent), Hispanic (10 percent), Asian or Pacific Islander (9 percent), with the remainder either Filipino, American Indian, or Alaskan Native.

The district conducted a study to determine the extent of the dropout problem and the reasons for students' leaving school early in 1983-84. In the Student Attrition Report, High Schools for School Year 1984-85 (1985), the district differentiated between the terms student attrition and dropout as follows:

> "Student attrition" is defined as students who enrolled in a school and for some reason left the school before the completion of the school year.
>
> A school "dropout" is any person who leaves school prior to the completion of a school year and does not enter another public or private institution or program leading to a high school diploma.

The annual attrition rate of students enrolled in the high schools was 15.6 percent. Of these, 9.6 percent were found to be continuing their education elsewhere, leaving a total of 6 percent with no verification of enrollment in other schools or programs; thus, they were considered to be dropouts.

Among the dropout students, the ethnic/racial distribution was 43 percent white, 42 percent black, 10 percent Hispanic, and the remainder American Indian or Alaskan Native, Filipino, or Asian or Pacific Islander.

5. San Diego City Unified School District

The San Diego City Unified School District operates 152 schools, with a total enrollment of approximately 111,000 students. The district's study encompassed grades nine through twelve and included some junior high schools, two- and four-year high schools, and an alternative and a continuation high school.

The district's ethnic/racial composition is 48 percent white, 20 percent Hispanic, 16 percent black, 10 percent Asian or Pacific Islander, 6 percent Filipino, and less than 1 percent American Indian or Alaskan Native.

San Diego's 1982-83 School Leaver Study of the San Diego Unified School District (1985), was conducted to determine a real dropout rate on an annual basis and to analyze this group relative to a variety of student characteristics. The study was based on the records of 4,309 students who were enrolled during 1982-83 and left school. A "leaver" was defined as:

> . . . a student who participated in and left any grade 9 through 12 during 1982-83, had the ability to meet graduation requirements or pass the California High School Proficiency Examination, is not known to have transferred to another high school or educational program, and who did not re-enter the district by October 1983.

Follow-up activities through use of the telephone and a questionnaire showed that 2,707 (62.8 percent) of the identified 4,309 leavers had, in fact, transferred to other public or private school systems. The real dropout rate was found to be 5.6 percent of the grade nine through twelve enrollment. Of the dropout group, 46 percent were white, 26 percent were Hispanic, 18 percent were black, 9 percent were Asian or Pacific Islander, and less than 1 percent were American Indian or Alaskan Native.

Summary of All District Reports

Reports provided by the districts contained information from studies conducted between 1980-81 and 1984-85. When data from several years were available, the most current information was used. All 42 districts reported using student records as the primary source of their information, while 13 augmented their research using follow-up activities such as interviews, questionnaires, telephone contacts, and direct mail. The type and variety of dropout characteristics considered in local evaluation studies included:

- School of attendance
- Gender
- Grade level
- Ethnicity
- Grade point average
- Age
- Achievement test scores in reading and mathematics
- Truancy
- Reasons for dropping out of school

The common element among all reports was a body of students who left school early. Twenty-nine of the districts concentrated their efforts on dropouts, nine considered attrition rates, and eight followed classes of students over a number of years.

Information provided in the reports was strictly "found data"; i.e., data that had been gathered for local use only and that was not the result of a large-scale data gathering effort using uniformly accepted definitions, time frames, collection and reporting techniques, or units of measurement (such an investigation will not be possible until the standardization of dropout accounting procedures becomes a reality). Therefore, any generalizations or conclusions drawn from the studies must be viewed as tentative. Districts varied as to whether they reported attrition rates or dropout rates, but none reported actual cohort accounting (i.e., tracking individually identified students from grade nine or ten to graduation or early withdrawal from school).

Of the nine districts that provided attrition data for classes followed over a period of years culminating in graduation at the end of grade twelve, the rate varied from 6.6 to 53.0 percent, with a median value of between 19.5 and 19.6 percent. Actual values are presented in Table IV-1.

Table IV-1

District-Reported Percentage of Attrition, by Grade and Number of Years Followed, 1979-80 Through 1985-86

Grade	No. of years followed	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
9-12	4	38.0	52.0	53.0				
10-12	3		23.0	22.0	32.0	31.0		
9-12	4				27.7	28.5	28.9	
Unspecified	4				20.4	23.7	24.3	21.4
10-12	3							19.6
9-12	4							19.5
9-12	4							16.7
Unspecified	4						(estimate)	16.5
9-12	4							7.0
10-12	3							6.6

NOTE: One district reported both a three-year and four-year attrition rate.

In the 22 studies that addressed the annual rate of dropouts, the incidence varied in the most recent report (1984-85) from 0.0 percent to 11.0 percent, with a median of 5.4 percent. Findings for the rate of dropouts reported annually are presented in Table IV-2.

Among the eight districts reporting dropout information for classes followed over time with numbers of students dropping out of school prior to graduation, the rates ranged from 4.6 percent to 41.0 percent, with a median of 17.3. Findings for these studies are shown in Table IV-3.

One striking feature of these numbers is that, whether attrition over a number of years, annual "dropout" data, or multi-year "dropout" numbers are used, district-reported numbers are generally lower than would be expected vis-a-vis recent reports on the dropout phenomenon, particularly those focused on attrition. Some possible explanations include the following: (1) attrition is not a good proxy for the dropout rate at the school or district level in that it generally overestimates the dropout rate; (2) districts that attend to the dropout problem often reduce their dropout rate simply by locating students through better accounting procedures; and (3) a probable bias is introduced with only a small percentage of districts collecting information and reporting results (districts with high dropout rates may be disinclined to produce a dropout report). With the paucity and inconsistency of available data from LEAs, it is all the more important to gather dropout data on a uniform basis statewide.

Table IV-2

District-Reported Percentage of Annual Enrollment Reported as School Dropouts, by Grade, 1979-80 Through 1984-85

Grade	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85
9-12						11.0
9-12					9.6	
Unspecified		12.5	19.8	17.2	9.3	
Unspecified						9.3
8-12			11.0	9.0	8.0	9.0
9-12						8.0
9-12						7.1
9-12						6.1
Unspecified	11.4	9.4	7.4	7.4	8.6	5.8
Unspecified	6.1	6.2	7.3	2.7	4.7	5.8
10-12				2.9	3.0	5.5
Unspecified						5.4
Unspecified		3.8				
9-12						3.7
9-12						2.8
9-12						2.8
7-12						2.5
9-12					2.8	
9-12						1.5
9-12						1.2
9-12						0.9
Unspecified						0.0

Table IV-3

District-Reported Percentage of Students Reported as Dropouts, by Grade and by Number of Years Followed, 1980-81 Through 1984-85

Grade	No. of years followed	1980-81	1981-82	1982-83	1983-84	1984-85
9-12	4					41.0
Unspecified	5				38.0	
9-12	4					25.0
Unspecified	4			22.6		
9-12	4					12.0
9-12	4					8.6
10-12	3					7.7
Unspecified	6	4.6				

District Interviews

Interviews were conducted in 10 of the 19 districts that contributed to the report by the Association of California Urban School Districts' Task Force on Dropouts (1985). The districts whose staff we interviewed were:

- Berkeley Unified School District
- Fresno Unified School District
- Long Beach Unified School District
- Los Angeles Unified School District
- Pasadena Unified School District
- Richmond Unified School District
- Sacramento City Unified School District
- San Diego City Unified School District
- San Juan Unified School District
- Santa Ana Unified School District

The person most familiar with each district's information on dropouts was contacted, and data were gathered using a structured interview format. The districts interviewed served 22.5 percent of the student population in grades nine through twelve in California during 1984-85.

We went to these districts, in part, to learn about their dropout accounting procedures and some of the problems they have experienced under their current dropout data collection system. We recognize that some of the experiences of these large districts will not be applicable to smaller districts with substantially fewer resources (data processing capability, for example). On the other hand, the experiences of these larger districts provide the Department some direction in the development of training programs. (See "A Need For Training.")

These districts reported several concerns regarding accounting procedures. A detailed listing of these concerns appears in the Association of California Urban School Districts' Report (1985), and we summarize a few of them here.

Although districts are required by the California Administrative Code (CAC), Title 5, to indicate on a student's file the day of enrollment, the actual day that districts elect to begin counting attendance is locally determined. Consquently, districts may choose to begin counting student attendance on the first day students are legally enrolled, or they may choose to begin counting on the fifteenth day or some other option selected for local reasons. One reason why some districts may choose not to count attendance on the first day is their experience with students "shopping" for schools; i.e., enrolling in one school and then another and, perhaps, even a third one before settling into the regular semester. Although estimates of this phenomenon were not volunteered, the districts that did mention it considered the number significant. The districts that counted students as enrolled from their first day of attendance also indicated that their enrollment figures were inflated because of these and other student mobility factors and that their reported rates of attrition were, thus, seriously and erroneously affected by the inflated data.

There is a lack of a common definition for the terms attrition and dropout. Schools vary in what grades they begin to record the incidence of nonreturning students and are very different in their abilities and resources for following up on presumed school dropouts. As indicated in the San Diego City Unified School District's 1982-83 School Leaver Study, follow-up activities showed that 62.8 percent of the identified 4,309 leavers had, in fact, transferred to other public or private school systems.

Some of the districts surveyed indicated that they would have some problems in complying with the October, 1986, California Basic Educational Data System (CBEDS) requirement for the reporting of school dropouts. These districts expressed the concern that the reporting requirement will place considerable strain on their current data management systems and that, in some instances, major computer reprogramming will be required. One person interviewed said that this additional requirement (i.e., dropout reporting) could well force the districts into rethinking their current demands for data processing. We note that all of the districts in which we interviewed staff had made major commitments to the development of data base management systems. The impact of this reporting requirement on districts operating with less sophisticated systems is unknown.

There are also clear cost implications for districts as they develop accounting procedures to deal with those who leave school. The most expensive approach is to develop procedures for a true cohort analysis in which individual students are followed by name from year to year and extensive follow-up occurs. A less expensive approach is to collect annual dropout information and then estimate the three- or four-year cohort rate. While the cost issue is not insignificant, we have no way of estimating the magnitude, since districts vary in terms of their existing resources.

Finally, while not an accounting problem per se, there was much concern expressed to us about the high attrition rates among minorities. To put this problem in perspective, consider the 1984 CBEDS attrition rates, by ethnic group, in Table IV-4.

Table IV-4

Attrition Rates, by Percentage, for the Class of 1984
(Grade Ten to Graduation)

Ethnic or racial group	Percent
American Indian	45.6
Asian	15.0
Filipino	21.9
Hispanic	43.2
Black	43.5
White	25.0

Given the high enrollment and attrition rates of Hispanics, both within the districts we visited and statewide, there is a natural focus on Hispanics. One national study (National Commission on Secondary Education for Hispanics, 1984) points out that Hispanic students tend to drop out in large numbers prior to the tenth grade, when many schools begin maintaining statistics. This is an opinion we heard from several districts.

Household census data suggest that dropout rates among immigrant Hispanic youth who have had less exposure to the American educational system are even higher. Primary school enrollments for Hispanics--native and Mexican-born--mirror those of the general population. By mid-high school, however, enrollment of first-generation native-borns and Mexican-borns begins to fall. The school enrollment rate for Mexican-born Hispanics begins to drop sharply at the higher grade levels. At age sixteen to seventeen years, 62 percent of Mexican-born, 76 percent of first-generation, and 86 percent of second-generation Hispanics are enrolled in school. It appears that the California-born Hispanics are adopting school-leaving behavior which mirrors that of the general population. In fact, in Richmond Unified School District, the dropout rate among Hispanics is lower than that of whites, a result, we were told, of the stable Hispanic population within the community.

Studies have found that many Hispanic dropouts say they leave school for economic reasons. One factor cited is that the diploma is of less value to Hispanics in the job market than to other groups. The rate of return of education to Hispanics remains low, a fact reflected in low higher education enrollments for Hispanics and relatively high employment rates. The disparity in Hispanics' enrollment figures is likely to continue as long as the job market remains attractive to, and provides opportunities for, Hispanic teens who do not have diplomas (Stern, 1985c).

Another contributing reason for the high dropout rate among Hispanics, we have been told, is the practice of assigning students to grades on the basis of age rather than prior education, let alone achievement. Some Hispanic students returning to Mexico are denied enrollment there; when they return to the United States, they have experienced a hiatus, yet are assigned on the basis of age to an inappropriate grade level. This improper placement further exacerbates their sense of failure.

The California Dropout Rate

Since dropout data per se have not been collected on a statewide basis, only estimates of the dropout rate are available. The number of available estimates is overwhelming, and the estimates are mostly contradictory and highly variable in accuracy. There is general agreement on the need for better dropout numbers. McDill and others (1985), in a recent national look at dropout numbers, concluded:

> There is a need for more precise data on school attendance and dropping out. We have suggested that the currently available data on the dropout phenomenon are less than satisfactory. Different sources of data and different methods of record-keeping result in dramatically different statistics on dropouts. While the current state of data on dropouts may not prevent us from concluding that dropping out represents a major educational problem, we will require more accurate information if we are to understand the nature of the problem in a way that will permit us to begin to devise solutions. This is particularly true for dropouts who are in these sociodemographic groups not typically associated with early school leaving.

Dropout estimates are basically generated from two sources: household surveys (e.g., census data) and school-based information sources. In the case of household surveys, information is usually gathered using sampling strategies, and the results are statistically weighted in order to generalize to the population of interest. School-based estimates are based on either the difference between enrollment and graduation, i.e., attrition, or on school district studies of those who leave school. There are not only vast differences between the estimates produced from these two sources but also equal variance within the sources. The reasons that there are such wide-ranging differences among these estimates are that definitions vary, data collection methodologies vary, existing data sources used to calculate these estimates vary as to their reliability and validity, and the way in which the estimates are used varies. A few examples follow which will illustrate the range of estimates:

1. Estimate of 1980 California sophomores who were dropouts, based on High School and Beyond--17 percent (Stern, 1985a)

   High School and Beyond (HSB) is a national longitudinal study sponsored by the National Center for Education Statistics (NCES). The NCES began the HSB survey in 1980 with over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the country. Schools were chosen by stratified probability sampling, and students within each school were selected by simple random sampling. The California analysis describes 2,836 sophomores who were enrolled in 118 California high schools in the spring of 1980. It should be noted that this HSB estimate covers only the period from second half of sophomore year to second half of senior year and, therefore, underestimates the dropout rate.

2. Census estimate of percentage of California residents who have not graduated from high school or beyond, or twenty-five years old and over, 1980--26.5 percent (Bureau of the Census, 1985)

   Since this information was reported for those at age twenty-five years or older, it is likely that the number would be higher had the cutoff age been eighteen or nineteen years of age.

3. U.S. Department of Education's California grade nine through twelve class of 1984 dropout estimate--36.8 percent (USDOE Planning and Evaluation estimate reported 2-21-86 by Education Secretary Bennett)

   This estimate was derived from enrollment and graduation data and, thus, is an attrition estimate of the dropout rate. This number varies from the Department's estimate of attrition because USDOE used a number of statistical adjustments in order to have comparable state-by-state numbers. While these adjustments may provide comparisons among states, we believe the procedure is flawed in that it overestimates the California dropout rate.

4. California Basic Educational Data System (CBEDS) average grade nine through twelve attrition 1980 through 1984--30 percent

   In the last four to five years, the attrition rate has gone from around 32 percent to 29 percent. As with all attrition numbers, there are numerous factors which affect the quality of the estimate. If enrollment

has been overestimated, then the attrition rate would be a conservative estimate; however, if the graduation numbers are underestimated (for example, CBEDS does not count those who pass either the GED test or California High School Proficiency Examination [CHSPE]), then the reported attrition rate is too high.

5. California LEA dropout studies show a median dropout rate of approximately 25 percent in grades nine through twelve. These studies are analyzed earlier in this section.

6. The Los Angeles Unified School District (1985) reports a "dropout" rate of 6.41 percent for 50 high schools during the three-year period of 1981-82 through 1983-84. The district also reports a student "dropout" rate of 42.3 percent for three classes of students in 49 high schools during the six-year period 1979-80 through 1983-84. This figure is based on data collected for the district's own Report of Attrition Rate (1985).

   This example illustrates the rather incredible difference in dropout estimates within the same district and demonstrates the fallibility of these estimates. LAUSD's explanation of the difference between these numbers is as follows: "The difference in the rate of student dropout obtained from the two methods is probably due to noncollection and reporting as leavers, by the Report of Early School Leavers, of those students who do not return to school after summer vacation, and year-round students not returning to school after off-track vacation when they are moving to a new grade level." (p. 56) The report is clear in that neither system was designed to collect specific dropout counts and that "LAUSD does not have a process for collecting and reporting, nor requires schools to collect and report, a category of students designated 'dropout.'" LAUSD has since instigated a process to collect dropout data.

7. Estimating the true percentage of California high school students who do not obtain a diploma or equivalent by age 30--20 percent (Leiderman, 1986)

   The estimate was arrived at as follows:

   > We can estimate how many dropouts from a particular cohort actually do undertake a status change within 12 years after their intended graduation date. We can estimate this figure by using the dropout rate (aggregated attrition rate) of the class of 1983, adjusted for those who are likely to have passed the GED or CHSPE by age 30, and compare it to 30-year-olds who self-reported educational attainment levels in the 1980 census (with the assumption that this figure will remain relatively static for the class of 1983 who will be 30 in 1995).
   >
   > The attrition rate for the class of 1983 was 30 percent. Extrapolating from data presented earlier: assuming 75 percent of all GED passers are under 30, roughly 20,000 to 25,000 of this cohort will pass the GED by age 30.

> Another 7,000 to 8,000 will pass the CHSPE. This means that approximately 30,000 dropouts (30 percent) from the class of 1983 will obtain a high school equivalency by age 30. Thirty (30) percent of this 30 percent translates into an adjusted rate of 20 percent of the class of 1983, who will not have a diploma or equivalent by age 30. In the 1980 census, 15 percent of the 30-year olds stated that they were not high school graduates. This figure closely matches our estimated 20 percent nongraduate figure. If we were to follow this cohort through its lifetime, we might observe further reduction of the "dropout" number.

Several patterns emerge from these examples and other estimates which the Department has examined: household surveys tend to produce estimates which are low; attrition calculations tend to produce the highest estimates; district dropout studies tend to produce numbers lower than corresponding attrition studies; and there are substantial differences in procedures and outcomes.

In the absence of clearly elucidated definitions and procedures for collecting dropout information at the school and district levels, the best "fix" on the statewide dropout rate is, we believe, near the statewide attrition rate of 29-30 percent and probably somewhat lower for the school-age population. We are persuaded, moreover, that the significantly lower figure of 20 percent for the 30-year-olds (#7 above) is a reasonable estimate. In the next section, we present a definition and procedures which will allow for the collection of information on actual dropouts on an annual statewide basis.

State Definition of a Dropout

As was discussed earlier, there has been no common accepted operational definition of a dropout. From a statewide perspective, there has been no systematic process for maintaining or collecting dropout information for all high schools (although dropout information is routinely collected on an annual basis for continuation high schools). The last study done by the Department was conducted in 1973-74 and 1974-75 as a result of Assembly Concurrent Resolution 202. The study employed a 25 percent sample of schools, and usable statewide data were obtained for only 17 percent of the schools; thus, there was a probable bias in the results. Efforts by the Department to rectify this problem were begun in 1983 when a report entitled "Dropout Feasibility Study" was prepared and submitted to the Joint Legislative Budget Committee on November 15, 1983, in response to SB 813 (Chapter 498, Statutes of 1983). This report identified five factors which give a perspective on why there has been a lack of statewide data: (1) ambiguity over the definition of a dropout; (2) the ability or willingness of school districts to collect and report valid data; (3) the difficulty of developing operational definitions of the reasons for students leaving; (4) the expense of local data collection; and (5) the political sensitivity of public reporting of dropout information. Also offered was the following definition of a dropout:

> A dropout will be defined as any person who leaves school prior to graduation or completion of a formal education, or legal equivalent, and who does not, within 45 school days, enter another public or private educational institution or school program.

Variations of this definition later appeared in two Assembly Bills (AB 3287 of 1984 and AB 2454 of 1985, both introduced by Assemblywoman Gloria Molina) which, along with creating various dropout prevention programs, required the Department to collect annual dropout data from all districts operating secondary schools. Both bills were ultimately vetoed, with the Legislative Analyst and Department of Finance raising strong concerns over the imposition of a state-mandated local program with unknown and potentially reimbursable costs. The "45-day" criterion currently appears in SB 65 (Torres, Chapter 1431, Statutes of 1985) as the definition of "dropout," but this definition only applies to schools participating in SB 65 programs.

In approaching a refined definition of a dropout, we find it useful to think about the problem in terms of the following groups of students:

1. Students who stay in school

2. Students who are known dropouts

3. Students who leave school but are not dropouts; e.g., transfers

4. Students who leave school but whose status is unknown

The actual number of dropouts is composed of those students from group #2 and some subset of group #4. As was apparent in our analysis of district dropout reports, in the case of the known dropouts there currently are inconsistencies among districts as to the definition of a dropout: some districts do not include eighteen-year-olds; some districts do not include enrollees in non-diploma educational programs; some districts do not include continuation school students; and so on. These specific and somewhat technical aspects are nonetheless important and can make significant differences in a district's reported dropout rate. There are other troublesome areas (e.g., nonmainstreamed special education students, migrant students) which require careful and reasonable definitions and associated accounting procedures so that all districts reliably report their known dropouts. The Department is working with a number of districts in the development of these guidelines.

The last group, students who leave school but whose status is unknown, poses a significant and idiosyncratic problem in the collection and aggregation of dropout statistics. Many of these students are not dropouts. Some move to districts or states that do not request transcripts; some return to Mexico and enroll in school; some may be involved in an alternative educational program. The problem is significant in that districts that have conducted extensive and expensive follow-up studies have identified as much as 30 to 40 percent (or in the case of the San Diego study, 63 percent) of this group as being "legitimate school leavers." Thus, districts that have careful follow-up procedures in place report dropout rates surprisingly and significantly lower than their attrition rates.

The problem is idiosyncratic in that districts have unequal interest in following and unequal resources to follow these students to the point of a "known" classification, dropout or not. This difference in districts' persistence in determining the status of those in the fourth group creates dropout statistics

which carry somewhat different meanings from different districts, even with a common definition of a dropout. The many different aspects of what constitutes a dropout and the varying administrative capability of districts to categorize students point to the somewhat imperfect nature of dropout statistics. The imperfect nature does not, however, diminish the importance of beginning to collect reasonable data which will provide information to school, district, and state level decision-makers for use in formulating dropout prevention strategies. We believe that, as is the case with most large-scale data collection systems, data reliability will improve over time and that, in the case of dropout data, year-one information will be particularly useful at the LEA level.

The Department will begin to collect annual dropout information from all high school and unified districts in the fall of 1986. Districts were notified of this intent in December, 1985, and data will be collected as part of the California Basic Educational Data System (CBEDS). Districts are being asked to report actual numbers of dropouts for grades ten, eleven, and twelve using the "45-day" definition. Further clarification of the definition and the item format for collecting these data will be disseminated to districts in the near future. We present the following definition and clarification not as the final form, but as a more refined version based on our discussions with the ten districts we visited:

> A "dropout" is any student who has been enrolled in grade 10, 11, or 12 but who left school prior to graduation or the completion of a formal education, or legal equivalent, and who did not, within 45 school days, enter another public or private educational institution or school program, as documented by a written request for a transcript from that institution.

The following guidelines should be used in the application of this definition:

1. The dropout reporting period should be on a calendar year basis. Several districts recommended a fiscal year (July 1 to June 30) cycle to be consistent with other major reporting requirements.

2. The words <u>another public or private educational institution or school program</u> refer to institutions or programs that lead to a high school diploma or its equivalent. Otherwise, a student is counted as a dropout (e.g., trade school enrollees are considered dropouts).

3. Students who leave school at age eighteen years or older are subject to the same criteria as students under eighteen years old. In other words, even though these students are not <u>legally</u> required to be in school, they are nonetheless dropouts if they are not actively enrolled in a program which leads to a diploma or equivalent.

4. The 45-day criterion should be considered a necessary, but not sufficient, condition for dropout classification. If the 45-day period has expired without written confirmation, the student should be considered a "school leaver/potential dropout." If a transcript request arrives after the

45-day period and prior to the reporting date, that student should not be reported as a dropout. Similarly, if the student reenrolls within the calendar year reporting period, that student should not be counted as a dropout.

5. A student should not be counted as a dropout more than once in a reporting period. Since the Department is collecting annual dropout information, it is possible that a student could be counted in each of different reporting years (assuming that the student reenrolls in a different year and leaves school again).

6. If a student leaves school near the end of the calendar year and the 45-day period ends in the next calendar year, but prior to the October reporting date, that student is a dropout for the calendar year in which he or she left school. If, however, a student leaves school near the end of the calendar year and the 45-day period ends after the reporting period in the next calendar year, that student is considered a "school leaver/potential dropout" for the new calendar year (since he or she may reenroll) but is not reported as a dropout for the previous calendar year.

A Need for Training

Soon after the various aspects of the definition have been formalized, the Department will provide workshops on the procedural aspects of collecting and reporting dropout data. As was mentioned earlier in this report, most of the smaller districts and many of the medium sized districts lack the student-based data processing capability for a computerized reporting system. Coding systems, not dependent on mainframe computer systems, are needed for these districts. In addition, progress toward standardization of procedures for requesting and sending transcripts would be helpful to districts.

V. HOW HAVE THE EDUCATIONAL REFORMS AFFECTED THE HOLDING POWER OF SCHOOLS?

Considerable controversy currently exists over the likely fate of students at-risk who drop out during this period of educational reform. One view is that the various dimensions of educational reform, such as higher graduation requirements and more rigorous curriculum and the concomitant reductions in remedial, vocational, and nonacademic curricular offerings, will force more and more of the academically less successful, marginally involved students out of school altogether. According to this view, the educational reforms are benefitting the academically successful students at the expense of the "at-risk" students who are losing the curricular flexibility that has previously helped to keep them in school. An opposing view put forth by the proponents of reform is that high expectations and improved instruction will increase all students' experiences of success, thereby providing at-risk students an incentive to stay in school.

We believe that the critical factor is sensitive and appropriate implementation of the reforms so that the educational needs of all students are met. Recent reports from business and education leaders alike stress that academic preparation is not just for the college-bound. Academic Preparation for the World of Work, published by the College Board as a result of continuing dialogue among business leaders and educators throughout the country, states that:

> The message to schools is clear: Work-bound students, whether following vocational or general education courses of study, shouldn't be taken off the academic track. . . . The future of the nation's economy will depend increasingly on employees who are skilled not only in the traditional basics--reading, writing and arithmetic--but also in the more sophisticated analytical skills of problem-solving and reasoning.

The importance of high-quality academic preparation is also stressed by the Education Commission of the States' Task Force on Education for Economic Growth. The task force report (1983) reaffirms that it is imperative to equip students with "skills that go beyond the basics." And recent statistics from the Department of Labor project that by 1995, nearly one-third of all jobs will be scientific, managerial, and professional. In other job categories, work specifications will be upgraded as well. In the next decade, nearly 50 percent of the jobs are going to require the same level of education previously associated with the college-bound.

The fact that high school graduates who move directly into the job market need training in the basic skills is the major finding of a National Academy of Sciences study, High Schools and the Changing Workplace. The sole objective of the report was to identify, from the employers' perspective, the basic education needed for effective, upwardly mobile participation in the American work force. A panel composed of 20 business and education leaders who worked on the study concluded that:

> Those who enter the work force after earning a high school diploma need virtually the same competencies as those going to college.

The panel identified a set of core competencies that are critical to the successful careers of high school graduates:

- A functional command of the English language in its written and spoken forms
- The capacity to reason and solve problems
- The ability to read, comprehend, and interpret written materials
- The ability to organize information and state it clearly and concisely in a written form that is grammatically correct
- An understanding of the basic principles of science and technology
- Knowledge of how the American society and economy function
- Positive attitudes and work habits

The report concludes that although technical and vocational education can enhance a student's employability, "no other skills can substitute for education in the core competencies."

This debate on the reforms and dropouts has thus far been conducted largely in the absence of data--certainly without decisive data. The reform movement is still so young that there has not been adequate time to see any effects on the numbers and types of students who drop out of school (even if a causal relationship between the reforms and changes in dropout statistics could be assumed). For example, the increase in graduation requirements for California high school students will only begin to affect the class of 1987. All dropout data discussed herein predate the reforms.

Part of the difficulty in knowing the effects of any major programmatic interventions on numbers of dropouts has to do with the lack of effective and uniform recordkeeping, as has already been thoroughly discussed. With the introduction of better procedures for accounting for student attendance and completion patterns and with the continued implementation of the reforms over the next few years, the effects of the reforms on the holding power of schools will become more evident. Meanwhile, the debate will continue, and debaters will be armed primarily with ideological perspectives, but few data. In this section, we briefly review some of the data that are available and that have been used variously by the enthusiastic proponents and the worried watchers of reform.

With regard to patterns of attrition in California high schools over the past three years since the passage of SB 813, the data simply do not reveal any clear trends. Changes in attrition figures during this time have been relatively small and not clearly directed either up or down. The U.S. Education Department recently reported a slight drop in attrition rates both in California and nationwide. But in general, it is simply too soon to know whether any definite trends are emerging.

In a recent article summarizing research and speculations on both sides of the issue, McDill, Natriello, and Pallas (1985) drew the equivocal conclusion that ". . . the reforms directed toward more challenging content, time, and achievement standards may have both positive and negative effects."

Much of the concern about deleterious effects of the reforms on at-risk students has focused on the so-called shrinking curriculum. Enrollment figures do show significant declines over the past three years in the numbers of students enrolled, for example, in vocational education and in remedial classes, both of which have traditionally been populated by less academically oriented students. Over this same period of time, the enrollment in general math classes and continuation classes has increased substantially. We feel at this stage that the shifting enrollment patterns can be marshalled by both sides in the debate over likely effects on at-risk students.

The greater narrowing of curriculum in California actually occurred prior to the reform movement, largely as a result of funding cutbacks following passage of Proposition 13. The dramatic reduction in summer school programs occurred in the late 1970s. Without summer school, many students have been unable to complete course requirements for graduation and have dropped out instead. In addition to the loss of summer school, the abrupt reduction of revenues in the late 1970s forced many school districts to eliminate other course offerings, especially nonacademic electives, and to reduce or eliminate crucial counseling services. As was noted in the Assembly Office of Research's recent report, the decade of the 1970s was, for a variety of reasons, a period of intense escalation of dropout statistics.

Concomitant with strengthening the academic core curriculum and raising expectations are two other major interventions which are very much a part of the reform movement and perhaps likely to have the most impact on potential dropouts. These are (1) efforts to introduce special dropout prevention programs; and (2) the strides being made by many districts to make contact with and account for students who leave school and those with irregular attendance patterns.

Dropout prevention and recovery programs were discussed in an earlier section of this report. We learned during our district visits that, not surprisingly, the effort to account for students who have left school may be having a major effect in terms of reducing the dropout numbers. Such an effect would be restricted, of course, to those relatively few districts which have already instituted significant efforts to account for such students. First, better accounting enables districts to learn the whereabouts of large numbers of students who leave the district and continue in school elsewhere. In other words, better accounting is leading to more accurate and, in some cases, smaller numbers reported as dropouts. A second and important beneficial effect of better accounting is the encouragement to return to school that those who have left receive when schools make contact with them or their families. We expect that the major commitment to reporting accurate dropout figures that will be made by districts throughout the state beginning in 1986-87 will, in itself, be a major contributor to reducing the numbers of students who drop out. A few districts have indicated to us that they have already observed reductions in dropout rates which they attribute, in part, to better follow-up procedures.

The data we gathered from most of our visits to districts as well as from our analyses of local dropout studies parallel the statewide figures over the past few years. There simply has not been enough time for any definitive impact of the reforms on dropout statistics to show up. Opinions and predictions among local school officials are as diverse as those of larger scale policy analysts. Some district staff believe that the stress on students engendered by greater academic pressure will lead to large increases in dropout figures. Others say that the effects will depend on how the reforms are instituted. The way in which the reform is implemented will affect whether students experience school as too demanding, on the one hand, or as engaging and meaningful, on the other hand. This view was expressed by McDill et al. in their review article:

> . . . students who are potential dropouts may suffer greatly under the new standards unless appropriate measures are taken to provide these students with additional learning resources to meet the new challenges they will confront.

VI. RECOMMENDATIONS AND STATE DEPARTMENT OF EDUCATION INITIATIVES

Recommendations

Throughout this report, we have stressed the complex and interrelated nature of conditions which have led and continue to contribute to the dropout problem in California schools. We have pointed to the multiplicity of reasons, both early onset and late onset, which do not necessarily cause, but are highly correlated with, dropping out. We have highlighted some specific dimensions of programs and suggested that there may be great payoffs in strategies which lead to a matching of individual high-risk youth with a program (or aspect of a program) that will provide an optimum solution. We demonstrated the confusing and inconsistent state of estimates and data collection procedures and provided a definition of a dropout which we believe will lead to meaningful and accurate data collection for both LEAs and the state. We also examined the potential impact of the current reforms, and while it is much too early to establish empirical trends, we believe that a commitment to higher standards will improve conditions for all students.

There is much to be done. The Department is moving aggressively and comprehensively to develop the capacity of schools and districts to increase their holding power. This strategy is detailed below under "State Department of Education Initiatives."

There are a number of areas the Department is focusing on that deserve special attention as these dropout prevention, retention, and collection strategies become fully implemented in the years ahead. We recommend the following as areas deserving particular emphasis for both the Department and LEAs as we plan together to implement strategies dealing with the dropout problem:

- The development of accurate dropout accounting and public reporting procedures, including follow-up and case studies
- An emphasis on early identification and intervention and close articulation in these areas among elementary and secondary schools
- A focus on the middle schools and junior high schools to reach those who may never show up for high school
- Increased counseling and counseling strategies designed to find the program which has the highest probability of success for a student within a community
- An acknowledgement that dropouts are a community problem whose solutions require community participation
- The development of effective interventions for minorities, who are especially vulnerable to dropping out
- A commitment to evaluation so that mistakes are detected early and successes are replicated

State Department of Education Initiatives

The Department of Education has begun three major efforts to attack the dropout problem: a media campaign, a program of local assistance, and a brokering service.

An advisory committee, consisting of both school district personnel and representatives from the business community, has been established to assist with the development of the media campaign. The campaign will be designed to raise the awareness of the public regarding dropouts and high risk youth. The messages will be designed to promote student retention in school through high school graduation. Bringing students who have dropped out of the public school system back into the classroom will also be emphasized. The campaign will be targeted to encourage parents to work with their children and encourage homework completion and to generally become more involved in the education of their children. The campaign will also be aimed at students who are in school. They will be informed of the value of education and staying in school. It will also be targeted to former students who did not complete their education, with encouragement to pursue alternate methods of completing their schooling and/or improving job skills.

The campaign will be planned for fall, 1986, and will be developed by a public relations firm. The media to be used will include TV, newspapers, radio, and posters.

The program of local assistance is being administered by a special unit in the Department of Education, the High Risk Youth Liaison and Field Services Unit. The unit was formed to coordinate all dropout prevention and recovery activities and to implement the provisions of SB 65 (Chapter 1431, Statutes of 1985).

The unit has already completed the first phase of training of a group of school district persons who have experience in working with high risk youth. These trained persons form a cadre, whose members will be available to schools and districts to help them identify their specific needs in working with high risk youth. A significant part of this technical assistance will be providing information to school districts regarding existing human and financial resources they can use to solve their problems or improve their programs.

One of the provisions of SB 65 is the School-Based Pupil Motivation and Maintenance Program. This program, which is designed to keep high risk students in school, requires coordination and cooperation among a high school, a feeder junior high school, and two feeder elementary schools. The group of schools is called an educational complex. The Department has already received from school districts applications for planning grants for these educational complexes. A total of 50 districts will be funded.

Under another provision of SB 65, nine educational clinics have been selected for funding this year. The clinics offer remedial instruction, assessment, and placement for high risk youth.

The third major effort, a brokering service, is also administered by the special High Risk Youth Unit. The Department has begun to identify model programs on dropout prevention and recovery and to develop a program repository. Requesting districts can be put in contact with persons operating model programs under circumstances similar to theirs. To date, ten school districts have requested such assistance through the brokering service.

SELECTED REFERENCES

American Institutes for Research (1984). Replication Guide for the Peninsula Academies. Palo Alto, Calif.

Assembly Office of Research (1985). Dropping Out, Losing Out: The High Cost for California. Sacramento.

Association of California Urban School Districts (1985). Dropouts from California's Urban School Districts: Who Are They? How Do We Count Them? How Can We Hold Them (or at Least Educate Them)? Los Alamitos, Calif.: Southwest Regional Laboratory for Educational Research and Development.

Boyer, Ernest L. (1983). High School: A Report on Secondary Education in America. New York: Harper and Row.

Bureau of the Census (1985). Education in the United States, 1940--1983. Washington: U.S. Department of Commerce.

California Advisory Council on Vocational Education (1985). Opportunities for Vocational Education in the Educational Reform Act of 1983 (Senate Bill 813). Sacramento.

California State Department of Education (1985). Educational Issues Briefing for Deputies. High Risk Youth. Sacramento. Prepared by the Specialized Programs Branch, Development and Linkages Unit.

California State Department of Education (1984). Performance Report for California Schools, Indicators of Quality. Sacramento.

Coleman, James S., and Torsten Husen (1985). Becoming Adult in a Changing Society. Paris: Organization for Economic Cooperation and Development.

The College Board (1984). Academic Preparation for the World of Work. Sacramento.

Committee for Economic Development, Research and Policy Committee (1985). Investing in Our Children. New York.

Department of Finance (1985). Alternative Education. Sacramento.

Education Commission of the States: Task Force on Education for Economic Growth (1983). Action for Excellence. Boulder, Colo.

Educational Clinics Incorporated (1982). Description and Results of the ECI Program. Seattle.

Foley, Eileen, and Peggy Crull (1984). Educating the At-Risk Adolescent, More Lessons from Alternative High Schools. New York: Public Education Association.

Gerler, Edwin R., Jr. (1986). "Skills for Adolescence: A New Program for Young Teenagers." Phi Delta Kappan, 67(6): 436--439.

Gold, Martin, and David W. Mann (1984). Expelled to a Friendlier Place. Ann Arbor: University of Michigan Press.

Grossman, Pam; Michael W. Kirst; Worku Negash; Jackie Schmidt-Posner; and Michael Garet (1985). "Curricular Change in California Comprehensive High Schools: 1982-83 to 1984-85." Berkeley: PACE Project, School of Education, University of California.

Kohler, Mary C. (1981). "Developing Responsible Youth Through Youth Participation." Phi Delta Kappan, 62: 426--428.

Leiderman, Andrea N. (February, 1986). "Dropouts in California: Definition, Characteristics, and Trends." Berkeley: University of California.

Lloyd, D. N. (1978). "Prediction of School Failure from Third-Grade Data." Educational and Psychological Measurement, 38: 1193--1200.

Los Angeles Unified School District (1985). A Study of Student Dropouts in the Los Angeles Unified School District. Los Angeles.

Lotto, Linda S. (1982). "The Holding Power of Vocational Curricula: Characteristics of Effective Dropout Prevention Programs." Journal of Vocational Education Research, 7(4): 39--48.

McDill, Edward L.; Gary Natriello; and Aaron M. Pallas (1985). "Raising Standards and Retaining Students: The Impact of the Reform Recommendations on Potential Dropouts." Review of Educational Research, 55(4): 415--433.

Mann, Dale (1986). "Can We Help Dropouts? Thinking About the Undoable." Forthcoming in Teachers College Record, 87(3).

Maurer, Richard E. (1982). "Dropout Prevention: An Intervention Model for Today's High Schools." Phi Delta Kappan, 63: 470--471.

Moos, R. H., and B. S. Moos (1978). "Classroom Social Climate and Student Absences and Grades." Journal of Educational Psychology, 70: 263--269.

National Academy of Sciences (1984). High Schools and the Changing Workplace. Washington.

National Center for Education Statistics (1982). Digest of Education Statistics, 1982. Washington.

National Center for Education Statistics (1984). High School and Beyond, A National Longitudinal Study for the 1980's. Two Years in High School: The Status of 1980 Sophomores in 1982. Washington: U.S. Department of Education.

National Commission on Secondary Education for Hispanics (1984). Make Something Happen. Washington.

Newton, Fred E.; Jay Greenwood; and Juanita B. Sagan (1985). Alternatives to Failure: Resources for Improving Teaching. Portland, Oreg.: Multnomah Education Service District.

Oxnard Union High School District. Final Dropout Report, Spring Semester 1984-85. Oxnard, Calif.

Pasadena Unified School District (1985). Superintendent's Status Report on Efforts to Understand and Control Student Dropout in the Pasadena Unified School District. Pasadena, Calif.

Quay, Herbert C., and Laurel B. Allen (1982). "Truants and Dropouts." Encyclopedia of Educational Research (5th ed.), Volume 4, pp. 1958--1961. New York: The Free Press.

Reller, Dorothy J. (1985). The Peninsula Academies, Interim Evaluation Report, 1984-85 School Year. Palo Alto, Calif.: American Institutes for Research.

Richmond Unified School District (1985). Student Attrition Report, High Schools for School Year 1984-85. Richmond, Calif.

Robbins, Jeffrey; Stephen Mills; and William Clark (1981). "Alternative Programs--Sometimes They Work, Sometimes They Don't." National Association of Secondary School Principals, Bulletin, 65(445): 48--56.

Rollings, J. W. (1985). "Increase School Holding Power by Improving School Climate." California School Boards Journal, 44, July/August, pp. 15--17.

San Diego Unified School District (1985). The 1982-83 School Leaver Study of the San Diego Unified School District. San Diego.

Shepard to David Stern, February 9, 1986.

Stern, David (1982). "On the Value of Options for High School Students: Some Findings and an Analysis of Policy." Educational Evaluation and Policy Analysis, 4(1): 33--46.

Stern, David; James Catterall; Charlotte Alhadeff; and Maureen Ash (1985a). Reducing the High School Dropout Rate in California: Why We Should and How We May. Berkeley: University of California.

Stern, David; E. Gareth Hoachlander; Susan Choy; and Charles Benson (1985b). One Million Hours a Day: Vocational Education in California Public Secondary Schools. Berkeley: PACE Project, School of Education, University of California.

Stern, David (1985c). Educational Attainment and Employment of Major Racial or Ethnic Groups in California. Berkeley: University of California.

Taggart, Robert (1981). A Fisherman's Guide, An Assessment of Training and Remediation Strategies. Kalamazoo, Mich: Upjohn Institute.

Treadway, Peter G. (1985). "Beyond Statistics: Doing Something About Dropping Out of School." Stanford, Calif.: Stanford University.

U.S. Department of Education. Dropout estimate reported February 21, 1986, by Education Secretary Bennett. Washington.

Wehlage, Gary G. (1983). Effective Programs for the Marginal High School Student. Bloomington, Ind.: Phi Delta Kappa Educational Foundation.

Wehlage, Gary G., and Robert A. Rutter (Draft, 1984). "Dropping Out: How Much Do Schools Contribute to the Problem?" Forthcoming in Teachers College Record, 87(3), Spring, 1986.

Wigginton, Eliot (1986). Sometimes a Shining Moment: The Foxfire Experience. New York: Doubleday.

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