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ABSTRACT

This five-part report presents a statewide framework for assessing the impact of intersegmental programs designed to enhance student preparation for college, particularly those students who are historically underrepresented in postsecondary education. The first part of the report explains the origins of the study and the organization of the report, and the second part describes the eligibility rates for public universities and the community and school contexts. Part 3 summarizes the characteristics of the state's 10 intersegmental student preparation programs in terms of their philosophy, approach to implementation, participating institutions, objectives, services, school and student demographics, and resources. Part 4 examines the extent to which the programs are achieving the objectives of educational equity, and part 5 presents four preliminary conclusions (e.g., evidence for program effectiveness and the strength of the intersegmental approach) and five recommendations (e.g., that information on program effectiveness should be reported at the project level). Appendixes, which make up the bulk of the document, reproduce the reports submitted by the 10 programs, namely: Alliance for Collaborative Change in Education in School Systems/The Cooperative College Preparatory Program; California Academic Partnership Program; California Student Opportunity and Access Program; College Admissions Test Preparation Program; College Readiness Program; Early Academic Outreach Program; Expanded Curriculum Consultant Project; Mathematics, Engineering, Science Achievement Program; Middle College; and University and College Opportunities Program. (DB)

FIRST PROGRESS REPORT ON THE EFFECTIVENESS OF INTERSEGMENTAL STUDENT PREPARATION PROGRAMS

Alliance for Collaborative Change in Education in School Systems/
The Cooperative College Psychology Program (ACCESS/CCPP)
California Academic Partnership Program (CAPP)
California Student Opportunity and Access Program (Cal-SOAP)
College Admissions Test Preparation Program (CATPP)
College Readiness Program (CRP)
Early Academic Outreach Program (EAOP)
Expanded Curriculum Consultant Project (ECCP)
Mathematics, Engineering, Science Achievement Program (MESA)
Middle College (MC)
University and College Opportunities Program (UCO)

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

Summary

This report responds to the Legislature's request that the Commission develop a statewide framework for assessing the impact of intersegmental programs designed to enhance the preparation for college of all students, but particularly those from backgrounds historically underrepresented in postsecondary education.

Part One of the report on pages 1-2 explains the origins and organization of the document.

Part Two on pages 3-6 describes the challenges facing California in achieving educational equity as well as the community and school contexts that affect the attainment of these statewide goals.

Part Three on pages 7-18 discusses the characteristics of the State's intersegmental student preparation programs in general and describes ten of them in terms of their philosophy, approach to implementation, participating institutions, objectives, services, school and student demographics, and resources.

Part Four on pages 19-24 assesses the extent to which the programs, individually and collectively, are achieving their objectives and contributing to statewide progress toward educational equity.

Part Five on pages 25-28 presents preliminary conclusions on the effectiveness of the programs and recommendations to guide the development of future reports in this series.

The appendices beginning on page 31 reproduce the documents submitted by each of the ten programs reviewed in this report.

The Commission adopted this report at its meeting on October 30, 1989, on recommendation of its Policy Evaluation Committee. Additional copies may be obtained from the Publications Office of the Commission at (916) 322-4991. Questions about the substance of the report may be directed to Penny Edgert of the Commission staff at (916) 322-8028.

FIRST PROGRESS REPORT ON THE EFFECTIVENESS OF INTERSEGMENTAL STUDENT PREPARATION PROGRAMS

One of Three Reports to the Legislature in Response to Item 6420-0011-001 of the 1988-89 Budget Act

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
Third Floor • 1020 Twelfth Street • Sacramento, California 95814-3985

COMMISSION REPORT 89-29
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1 *Background of the Study*

OVER the past decade, the Commission has been directed to evaluate myriad programs designed to achieve educational equity goals, such as the California Academic Partnership Program (CAPP), the California Student Opportunity and Access Program (Cal-SOAP), and the Minority Engineering Program (MEP). While these evaluations have led to assessments about the effectiveness of individual programs, a statewide context to guide the individual evaluations and provide the basis for judgments across programs has been lacking. As a result, the Commission has been hampered in providing advice to the Governor and Legislature with respect to:

- The extent to which specific programs have been effective in contributing to statewide goals and priorities;
- The relative efficiency of these programs; and
- Strategies for identifying and replicating on a statewide basis effective programs that enhance preparation for college.

A compelling need exists to develop a statewide evaluation framework by which to assess the effectiveness of these programs for several reasons:

1. Due to the dramatic growth anticipated in the number of California public school students from backgrounds historically underrepresented in college, additional resources will be required to expand these programs in addition to encouraging fundamental institutional change, if educational equity is to be a reality.
2. At all times, but particularly when demands for services are increasing and a Constitutionally set appropriations limit constrains the allocation of State resources -- as at present in California -- the State needs to allocate funds to those programs and practices that have demonstrated the highest degree of effectiveness and efficiency.
3. Because many programs designed to achieve educational equity are yet to be fully institutionalized, their budgetary future remains precarious. This situation has produced an instability that keeps these programs focused on tactics for short-term survival rather than on strategies for policy and program planning.

Origins of the study

The Governor and Legislature recognized the need for a statewide framework by which to assess the impact of programs designed to enhance the preparation for college of all students, but particularly those from backgrounds historically underrepresented in postsecondary education. To that end, Item 6420-0011-001 of the 1988-89 Budget Act stated:

> In cooperation with the statewide offices of the public secondary and postsecondary institutions, the California Postsecondary Education Commission shall develop and implement a strategy to assess the impact of intersegmental programs designed to improve the preparation of secondary school students for college and university study. The purposes of the report shall be to identify those programs and institutional activities which are successful and to recommend priorities for future state funding to improve student preparation. In preparing this report, the Commission shall utilize data gathered by the statewide offices based on an evaluation framework developed cooperatively by the Commission and statewide office staff. Prior to December 1, 1988, the Commission shall prepare a list of the programs and institutional efforts to be included in this study, a statement of the specific objectives and the appropriate measures of effectiveness for each program and institutional effort to be reviewed, and a list of the data to be collected and supplied by the statewide offices to the Commission. Prior to October 1, 1989, and again the following year, the Commission shall submit a preliminary report on the relative effectiveness of these programs and efforts. Prior to October 1, 1991, the Commis-

sion shall submit a final report identifying those programs which have been most effective in achieving their objectives and recommending priorities for future state funding to improve student preparation.

The Commission intends that this three-year study will achieve several purposes:

- Identify program components that are most effective in improving the preparation for college of secondary school students and, based on this identification, recommend to the State those components and implementation strategies that appear to be worthy of statewide replication;
- Discern the contribution that the intersegmental character of these programs has on their effectiveness; and
- Identify factors in the school and community context of these programs that are most conducive to enhanced college preparation.

In order to accomplish these purposes, the Commission has embarked on a series of four reports:

1. As a first step, Commission staff developed, in conjunction with statewide program representatives, a prospectus for the evaluation that the Commission discussed at its December 1988 meeting.
2. In this progress report, the Commission seeks to provide a foundation for subsequent documents in this series by describing in detail the similarities and differences among programs in terms of their implementation strategies, criteria for selecting participants, demography of participating schools, characteristics of the students they serve, and the nature of evaluative information available about them.
3. In the third report, due in October 1990, the Commission will focus on the effectiveness of each program's component and, on the basis of an examination of variations in effectiveness among individual projects within the programs, on the strategies and contexts that appear most potent for achieving program goals.
4. In the final report of this series, scheduled for October 1991, the Commission will recommend to the Legislature and Governor those programs and implementation strategies that have been demonstrated to be effective in achieving their goals and that offer the greatest likelihood of contributing to educational equity throughout the State. Further, in that report, the Commission will discuss a plan by which effective model programs, components, and implementation processes can be expanded and strengthened to hasten the preparation for, and success in, college of all California students, especially those from backgrounds historically underrepresented in postsecondary education.

Organization of the report

In order to prepare this report, the Commission asked the statewide offices responsible for intersegmental student preparation programs to submit evidence of their programs' effectiveness by mid-July of this year. Commission staff received all of the reports on time and reviewed them for use in the remaining portions of this report, as follows:

- Part Two of the report describes the challenges facing California in achieving educational equity as well as the community and school contexts that affect the attainment of these statewide goals and in which intersegmental student preparation programs function.
- Part Three discusses the characteristics of these programs in general and describes ten of them in terms of their philosophy, approach to implementation, participating institutions, objectives, services, school and student demographics, and resources for the 1988-89 year.
- Part Four assesses the extent to which these programs, individually and collectively, are achieving their objectives and contributing to statewide progress toward educational equity.
- Part Five presents preliminary conclusions on the effectiveness of these programs and recommendations to guide the development of future reports in this series.
- Finally, Appendices A through J reproduce the reports submitted by each of the ten programs reviewed in this study.

2 California's Challenge for Achieving Educational Equity

IN ORDER to assess the contribution of intersegmental student preparation programs to achieving statewide goals, the nature of the challenge facing California with respect to educational equity must be understood. The Commission defined educational equity in inextricably interwoven quantitative and qualitative terms in its December 1988 statement, *The Role of the Commission in Achieving Educational Equity: A Declaration of Policy*. For the purpose of this study, the quantitative definition is of particular significance:

> The goal of educational equity is achieved when the composition of individuals at all educational levels, from elementary school through college faculties and administrative ranks, mirrors the demography of the State. Realizing that goal requires enhanced success at all educational levels such that there are similar achievement patterns among all groups (p. 1).

This definition assumes that education is structured as a continuum in which students progress from kindergarten through various graduations until they enter "the world of work." In terms of this definition, the extent to which educational equity is a reality in California today can be gleaned from Display 1 on page 4 -- a statewide picture of the movement of students from various racial-ethnic backgrounds along the educational continuum. An examination of this display reveals that the pattern of progress through the continuum differed among students from various racial-ethnic backgrounds during 1986 and 1987.

- Students from those backgrounds historically underrepresented in postsecondary education -- American Indian, Black, and Hispanic -- comprised a smaller proportion of the population at each successive educational level, beginning at high school graduation, than at the previous stage. For example, while Black and Hispanic students comprised 8.1 and 19.5 percent, respectively, of the 1986 high school graduating class in the State, they made up only 5.1 and 9.6 percent of the freshman class at the University of California that same year.
- Asian students comprised an increasingly larger proportion of the population at each successive educational level from high school graduation through baccalaureate graduation. At that point in the continuum, the proportion of Asians in graduate school programs begins to decrease at each successive level.
- Caucasian students comprise an increasingly larger proportion of the population at each successive point on the educational continuum beyond high school graduation, except in the freshman class at the University of California.

Eligibility rates for public universities

The primary factors contributing to these patterns are two-fold:

1. Black and Hispanic students have comparatively high rates of attrition prior to high school graduation. Current estimates indicate that 48 percent and 45 percent of these students leave high school without a diploma.
2. The rates at which students achieve eligibility to attend California's public universities differ by racial-ethnic categories. In its 1988 report, *Eligibility of California's 1986 High School Graduates for Admission to Its Public Universities*, the Commission estimated the rates at which high school graduates of various racial-ethnic backgrounds were eligible to attend the University of California and California State University. A brief review of that study reveals that:
   - While 14.1 percent of the 1986 public high school graduating class was eligible to attend the University of California, Asian seniors achieved eligibility at the highest rate -- 32.8

DISPLAY 1 Ethnic-Racial Background of Californians Reporting Their Background

	Racial-Ethnic Categories					
	American Indian	Asian	Black	Caucasian	Filipino	Hispanic
1987 State Population	N/A	9.0%	7.5%	60.3%	N/A	23.2%
1987 Public School Enrollments (K-12)	0.8%	7.8	9.1	50.1	2.1	30.1
1986 High School Graduating Class	0.7	8.3	8.1	61.2	2.2	19.5
1986 Eligibility Pool (Eligibility Rate)						
University of California (14.1%)	N/A	19.3 (32.8%)	2.5 (4.5%)	68.5 (15.8%)	3.0 (19.4%)	6.7 (5.0%)
The California State University (27.5%)	N/A	15.1 (50.0%)	3.1 (10.8%)	70.3 (31.8%)	2.3 (29.5%)	9.1 (13.3%)
1986 Freshman Class by System						
University of California	0.7	21.9	5.1	58.9	3.8	9.6
The California State University	0.8	15.3	6.3	62.8	3.6	11.2
California Community Colleges	1.5	7.0	8.6	63.8	2.3	16.8
1987 Community College Transfers						
University of California	1.0	14.0	3.8	68.7	2.3	10.4
The California State University	1.3	10.8	5.7	69.0	2.2	11.2
1987 Baccalaureate Recipients						
University of California	0.6	18.1	3.2	68.1	2.5	7.4
The California State University	1.1	12.6	5.2	68.7	2.3	9.9
1987 Master's Program Entering Class						
University of California	0.7	9.3	3.6	79.1	0.8	6.4
The California State University	1.1	9.5	4.1	77.5	0.9	6.9
1987 Master's Degree Recipients						
University of California	0.5	9.4	2.4	81.8	0.7	5.2
The California State University	1.1	7.7	4.2	80.9	0.5	5.7
1987 University of California Doctoral Program						
Entering Class	0.5	9.1	2.0	82.7	0.4	5.2
Graduating Class	0.4	8.0	2.6	84.8	0.2	3.9
1987 Public School Staff						
Teachers	N/A	3.4	6.2	82.1	N/A	6.7
Principals	N/A	2.2	8.6	79.8	N/A	8.3
Superintendents	N/A	0.6	1.5	94.0	N/A	3.0
1987 Full-Time Faculty						
University of California	0.2	9.2	1.8	85.0	N/A	3.2
The California State University	0.5	7.3	2.8	85.9	N/A	3.6
California Community Colleges	0.6	3.9	5.2	84.5	N/A	5.8
1987 Top Administrative Staff						
University of California	0.5	3.8	6.0	85.7	N/A	4.0
The California State University	0.6	4.7	9.0	79.4	N/A	6.3

Source: California Postsecondary Education Commission staff analysis.

percent. The eligibility rate for Caucasian graduates of 15.8 percent was most reflective of the State rate. However, only 4.5 percent of the Black graduates and 5.0 percent of Hispanic graduates achieved eligibility.

- There was an analogous pattern among seniors from various racial-ethnic backgrounds with respect to eligibility to attend the California State University. While 27.5 percent of all seniors graduating from public high schools were eligible to attend the State University, one-half of the Asian graduates achieved eligibility. The eligibility rate for Caucasian seniors of 31.6 percent reflected most closely the statewide rate. On the other hand, only 10.8 percent of Black graduates and 13.3 percent of Hispanic graduates in 1986 were eligible.

Eligibility for both public university systems consist of three components: secondary school course enrollment, academic performance in those courses, and college admission-test performance. In the main, the differences in eligibility rates among students from different racial-ethnic backgrounds is attributable to course enrollment patterns among these groups in high school. Nearly 24 percent of all seniors statewide in 1986 enrolled in the prescribed patterns of high school classes, referred to as "A-F" courses, that are required for admission to the University. Over half the Asian seniors enrolled in this sequence of courses. Slightly more than one-quarter of the Caucasian graduates in 1986 enrolled in these classes. On the other hand, less than 10 percent of the Black graduates and less than 13 percent of the Hispanic graduates took this course pattern.

These marked differences in course enrollments and the resultant variations in eligibility rates indicate that issues of preparation at the elementary and secondary school levels must be the central focus of efforts to achieve educational equity in California. Therefore, knowledge of the school contexts that exist in California is essential both for understanding student preparation issues and assessing the effectiveness of programs that function within those contexts.

Elementary and secondary school contexts in California

Most California students attend schools in their own neighborhoods, and because a strong correlation exists between socio-economic status and racial-ethnic background, these neighborhoods tend to be economically, racially, and ethnically homogeneous. As such, "racially or economically isolated" are apt adjectives to describe a majority of schools in this State. For example, the Achievement Council in its report, *Unfinished Business: Fulfilling Our Children's Promise*, documents that "in 1987, over 20 percent of the State's schools had enrollments that were 60 percent or more Latino and Black. At the same time, 44 percent of schools had Latino and Black enrollments of less than 20 percent" (p.10).

While these findings are disturbing from the standpoint of creating a healthy multi-cultural society in which there is mutual respect for people of all races and ethnicities, particularly deleterious is the effect of this isolation on student learning. Quoting again from *Unfinished Business* (pp. 3-4):

> Into the education of poor and minority children, we put less of everything we believe makes a difference. Less experienced and well-trained teachers. Less instructional time. Less rich and well-balanced curricula. Less well-equipped facilities. And less of what may be most important of all: a belief that these youngsters can really learn. All in all, we teach poor and minority students less.
>
> This is compounded by the fact that some communities have less, too. Less knowledge about how the educational system works. Less ability to help with homework. Less money to finance educational extras. Less stability in the neighborhood. Fewer models of success. And hopes and dreams that too often are crushed by harsh economic conditions.

While this characterization of schools in low-income areas is cast in rather global terms, the following excerpt from a report submitted by one of the programs included in this study describes specifically the patchwork of obstacles to student learning present daily in these racially and economically isolat-

ed schools (*1989 Preliminary Report on ACCESS/CCPP*, pp. 1-2):

> Typically, problems faced by these schools reinforce each other and are compounded by a dynamic among them that promotes a self-perpetuating cycle of failure. Low student achievement and weak curriculum are reinforced by low expectations and standards, which in turn are reinforced by a lack of adequately prepared teachers, and instructional practices that do not engage students. These problems are compounded by extreme peer pressures not to take school seriously, a general lack of involvement of parents in their children's education and school, student advising and programming practices that tend to exclude students from college preparatory courses, and policies, management practices, and school organization that tend to foster a negative learning and teaching environment.
>
> Intense fiscal pressures, frequently changing policies, a lack of long-range planning, and an annual consolidation of teachers and reassignment of administrators exacerbate these conditions, resulting in a lack of continuity and stability in the schools' academic programs. These conditions lead inevitably to low student motivation and teacher morale, teacher burnout and isolation, a disenfranchisement of student, teacher, and administrator communities, and a general lack of hope that conditions could be any different. Many of the schools are in ongoing states of crises. Staff in some schools find themselves starting over again each year, while staff in others are too overloaded to do anything more than survive. Neither the schools nor the districts have a management infrastructure that can support significant change or have a strong capacity to address implementation problems on an ongoing basis. Overall, these problems have a particularly detrimental effect on Black and Hispanic students.

It is within this context and in these schools that the programs which are the focus of this report seek to enhance the preparation for college of students from historically underrepresented backgrounds.

3 *Characteristics of the Programs*

INTERSEGMENTAL student preparation programs differ from similar single-system programs in at least three ways:

- *Goals:* Their goal is to increase the number of students who pursue educational opportunities beyond high school rather than to recruit students to a particular system or campus.
- *Collaboration:* The programs represent partnerships between public schools and postsecondary institutions that support and supplement -- rather than supplant -- instruction, counseling, and staff at the school site, with more than one educational institution and usually several campuses from more than one system involved in designing, managing, and implementing the programs with direct participation from school staff.
- *Administration:* The programs are administered through statewide offices, but their projects are regionally based and implemented to meet local needs.

In addition to these general features, the ten programs included in this study share these characteristics:

- *Student Participants:* They all developed initially as pilot projects focused on enhancing the preparation for, and success in, college of students from American Indian, Black, and Hispanic backgrounds, but because low-income students from all races and ethnicities are historically underrepresented in postsecondary education, these programs also include these students as participants.
- *Student-Centered Approach:* These programs are student-centered in that they seek to effect changes in student performance directly, rather than through enhancement of the teaching process. As such, they measure their effectiveness in terms of student performance.
- *Secondary-Postsecondary Movement:* They function at the interface between secondary and postsecondary education rather than at transition points within postsecondary education.

The ten programs that share these commonalities and that have been studied for this report are:

1. Alliance for Collaborative Change in Education in School Systems/The Cooperative College Preparatory Program (ACCESS/CCPP);
2. California Academic Partnership Program (CAPP);
3. California Student Opportunity and Access Program (Cal-SOAP);
4. College Admissions Test Preparation Pilot Program (CATPP);
5. College Readiness Program (CRP);
6. Early Academic Outreach Program (EAOP);
7. Expanded Curriculum Consultant Project (ECCP) -- an expansion on the Western Association of Schools and Colleges/State Department of Education Joint Review Process;
8. Mathematics, Engineering, Science Achievement (MESA);
9. Middle College (MC); and
10. University and College Opportunities Program (UCO).

While similarities exist among these programs, significant differences are apparent in terms of their mission, philosophy, approach to implementation, flexibility to adapt program components to meet local needs, and anticipated length of commitment to a particular school site. Display 2 on pages 8 and 9 shows their essential characteristics in order to serve as a foundation for the information presented later in this report and in subsequent documents in this series. It indicates that the programs vary in terms of:

- The impetus for their initiation, with three programs (CAPP, Cal-SOAP, and CATPP) authorized

DISPLAY 2 Major Characteristics of the Ten Programs

	Cooperative College Preparatory Program ACCESS/CCPP	California Academic Partnership Program CAPP	California Student Opportunity and Access Program Cal-SOAP	College Admissions Test Preparation Pilot Program CATPP	College Readiness Program CRP
Program Impetus	Develop the organizational capacity of neighboring middle, junior, and senior high schools to prepare students better for college (1980).	Assembly Bill 2398 (Hughes, 1984).	Assembly Bill 507 (Fazio, 1978).	Assembly Bill 2321 (Tanner, 1985).	Address underpreparation of Black and Hispanic middle school students to enroll in college preparatory math and English courses (1986).
Program Mission*	Assist schools to engage in a school-based change process leading to curriculum, instructional, and organizational reforms that strengthen its math, English, and counseling programs.	Foster partnerships between school districts, colleges, and universities to improve learning, academic preparation, and access for middle and high school students to earn baccalaureate degrees.	Improve and increase the accessibility of postsecondary education to secondary school students.	Assist individual students to complete college preparatory course patterns at a high level of performance and fulfill college admissions test requirements.	Raise interest level and competence in math and English of Black and Hispanic middle school students in order to enable them to qualify for college preparatory math and English courses in high school.
Program Strategies to Fulfill Mission	• Coordinates planning and implementation assistance and staff development support for teachers, counselors, and administrators. • Provides classroom-based academic support for students.	• Offers grants to develop projects bringing together teams of faculty from schools and colleges to enhance curricular and instructional processes around academic subject areas. • Provides services to students in order that they can benefit from these enhancements.	Through a consortial approach requiring matching funds, • Serves as a clearinghouse for educational information • Provides academic support for students. • Supplements the schools' counseling function.	• Provides direct services to students in the form of: • Preparation for college admissions tests • Academic support • Advisement • Parent education.	Employs college students to serve as educational interns to assist students on a small-group basis to master math and English skills and enhance motivation for college on the part of students and parents.
Program Structure	Adaptive to school site needs.	Each project developed on the basis of a local needs assessment as part of the proposal process.	Each consortium designs services on the basis of local needs.	Through a one-time proposal process, projects structured services around local needs.	Programs are generally similar across the State
Duration at a School Site	Continuous.	Generally three years.	Continuous, if funded each three-year cycle.	Three years.	Continuous.
Potential Length of Time with a Student	Six years (Grades 7 through 12).	Possibly three years; most likely one year.	Possibly six years; most likely two or three.	Possibly three years; most likely one year.	Possibly three years; most likely two years.

* Except where indicated otherwise, students referred to in program missions are those from American Indian, Black, Hispanic, and low-income backgrounds.

Early Academic Outreach Program **EAOP**	Expanded Curriculum Consultant Project **ECCP**	Mathematics, Engineering, Science Achievement **MESA**	Middle College **MC**	University and College Opportunities Program **UCO**
Address the low rates at which American Indian, Black, and Hispanic students are eligible to attend the University (1975).	**Development of a coordinated statewide strategy for external assessment of schools (1988).**	**Concern among educators about the small number of Black and Mexican-American engineering graduates (1970).**	**Replication of the successful model of Middle College developed and implemented by La Guardia Community College in New York (1988).**	**Encourage schools to focus on preparing Black and Hispanic students for college (1978).**
Assist individual students to enroll and complete a college preparatory course of study leading to eligibility for the University.	**Develop and implement an expanded high school accreditation process that links WASC practices with Department of Education's quality review process.**	**Assist students to complete high school courses necessary to enter universities pursuing math-based fields.**	**Reduce the number of high-risk students with college potential who leave secondary school without a diploma.**	**Authorizes local initiatives to improve access to postsecondary education for students from underrepresented backgrounds.**
Strengthens the motivation for, preparation for, and knowledge about, college through individual and group activities.	**Curriculum consultants from colleges, a counselor-consultant, and a principal-mentor assist secondary school faculty:** • **Review the quality of curriculum and instructional practices** • **Develop a self-study report** • **Implement identified areas in the self-study.**	**With substantial support from the private sector, provides a set of student-centered activities design to motivate and prepare students for math-based fields.**	**Through contributions from both participants, the college merges strengths from both institutions by its location on a community college campus with instruction by school district faculty.**	**Coordinates resources at school sites to provide direct services to students.**
Program structure is generally the same across University of California campuses.	**The accreditation and self-study process is structured by WASC and the State Department of Education.**	**Centers adapt to meet local needs, although the components are similar.**	**The structure at each site will be a replica of the La Guardia model.**	**Each project adapts to meet local needs.**
Continuous.	**Three years.**	**Continuous.**	**Continuous.**	**Continuous.**
Possibly six years (Grades 7 through 12).	**Possibly three years.**	**Possibly six years (Grades 7 through 12).**	**Possibly three years.**	**Possibly six years (Grades 7 through 12); likely 3 years.**

through statute and the others developed directly in response to identified needs or concerns.

- The length of time that they have existed, from MESA, which will celebrate its twentieth anniversary in 1990, to ECCP and MC that began barely a year ago.
- Their missions and strategies, from school-based approaches that involve the total site (ACCESS/CCPP, ECCP, and MC) to the provision of direct assistance to students on an individual basis (Cal-SOAP, CATPP, CRP, EAOP, MESA, and UCO), with CAPP's mission and programmatic strategy falling somewhere in the middle of this continuum.
- Their adaptability to local needs, with the guidelines for most programs sufficiently flexible to tailor services to fit the exigencies of their specific situation.
- The extent to which they are structured to offer continuous involvement to individual school sites, with ACCESS/CCPP, Cal-SOAP, CRP, EAOP, MESA, MC, and UCO able to make long-term commitments to schools and the others inhibited by their funding cycles from involvement over more than a three-year period.
- The opportunity for students to participate in the program over sustained periods of time, with the likelihood that students will be involved in most of them less than three years and only ACCESS/CCPP, EAOP, MESA, and UCO offering the realistic potential for participation beyond that.

Display 3 on page 12 and 13 describes each of these programs as they functioned during 1988-89 in terms of participating institutions, goals, service components, and resources. Because all of the programs serve students from backgrounds historically underrepresented in postsecondary education, this display states their goals without specifying the characteristics of their participants, except where a program focuses on a particular sub-group of this larger population -- as is the case, for example, with the College Readiness Program.

A review of the information presented in Display 3 reveals:

- A sharing of responsibility by the educational systems for administering the programs.
- Active involvement in them by an impressive number of school districts and postsecondary campuses throughout the State.
- Complementary objectives, although they vary in level of specificity from MESA's that are quite focused to those of CAPP, Cal-SOAP, and UCO that are more generalized.
- Implementation of a diverse array of service components to achieve similar goals.
- State resources in the amount of $7,987,345 -- or approximately 0.025 percent of the State's General Fund -- supported these programs in 1988-89. This State expenditure was matched by $4,207,460 in institutional resources from school districts and postsecondary campuses and $808,683 in funds from other sources, including the private sector or community organizations, for a total 1988-89 budget of $13,003,488.

Secondary school participation in the programs

Because resources are limited, program staff select schools in which to provide services. These decisions are based upon several general criteria:

- Willingness of the school administrator to commit the institution to participate in the program;
- A sufficient number of students attending the school from historically underrepresented backgrounds to deliver services in a cost-effective fashion;
- Proximity of the school to a project or center site; and
- Judgment that undesirable duplication of services will not occur at the school site.

Summary information for 1987-88 on the schools served by the programs appears in Display 4 on page 14. It includes the demography of the schools in terms of the ethnic-racial composition of their student bodies, graduating classes, and college preparatory mathematics and science courses, as well as estimates of their dropout rate and percentage of low-income students. Comparing programs on the basis of the information in that display should be done with caution for three reasons:

- The data come from several sources, including the California Basic Education Data System (CBEDS), administered by the State Department of Education, and district records.
- Programs vary in their level of familiarity with, and accessibility to, information on a school-by-school basis.
- CBEDS information on course enrollments is subject to multiple interpretations.

Information in Display 4 indicates that:

- Approximately 1,055 public middle, junior, and senior high schools were reported as participating in these programs in the 1987-88 year. However, because more than one program often functions at a site, this figure should not be considered an unduplicated count. In subsequent reports in this series, an unduplicated figure will be presented indicating the total number and percentage of schools in the State in which students are receiving services from at least one of these programs.
- The programs range in size from EAOP, which delivers service to students in 634 schools, to CATPP and CRP, which function at 21 sites each. Further, the distribution of schools served by these programs vary; CRP, for example, operates in only middle or junior high schools while CATPP delivers services only in senior high schools.
- In the main, the programs have formed partnerships with schools in which the majority of the student population are from backgrounds historically underrepresented in postsecondary education. While this finding is not surprising given program goals, it demonstrates the effectiveness of the school selection processes developed by the programs.
- Available information from each program confirms other statewide data that American Indian, Black, and Hispanic students are proportionally less likely to graduate, enroll in a college preparatory course sequence, or enroll in advanced mathematics classes than their Asian and Caucasian classmates.
- Accurate information on attrition rates and socioeconomic level of secondary schools is difficult to obtain. In addition, the definition of "low-income" across programs were not consistent. As such, comparisons on this category across programs are misleading.

Issue of duplication of services

Because a school may be selected to participate in more than one program, questions have arisen in the past about the extent to which these programs are duplicative in terms of their services. In 1981, the California Round Table on Educational Opportunity adopted a statement on Coordination and Cooperation in Outreach Programs in which duplication of services among programs was defined as "providing the same service to the same student by two or more programs." Since the issuance of this statement, coupled with continued constraints on resources, these programs report the development of site-specific mechanisms to coordinate the delivery of services to students, thereby eliminating undesirable and inefficient duplication of effort.

Two types of coordination and cooperation were reported by these programs as occurring at the school site level:

1. On school sites, ACCESS/CCPP, Cal-SOAP, EAOP, MESA, and UCO report their development of a cooperative referral system that matches students with that program most appropriate to their educational aspirations, needs, and achievement level. In this manner, a comprehensive set of services are available at the site, with each program contributing to the whole by providing an unique set of services.
2. At several schools, programs cooperate in delivering common services to students. An example of this model is found in the Berkeley schools, where EAOP, MESA, and UCO, by combining resources, are able to offer skill development and enrichment classes to over 80 students. Without this level of coordination, only one class for less than 30 students could have been offered at the school site.

Program participants in 1987-88

Display 5 on pages 16-17 presents a profile of the students served by the ten programs during 1987-88 in terms of grade level, racial-ethnic background,

DISPLAY 3 *Operation of the Ten Programs During 1988-89*

	Cooperative College Preparatory Program **ACCESS/CCPP**	California Academic Partnership Program **CAPP**	California Student Opportunity and Access Program **Cal-SOAP**	College Admissions Test Preparation Pilot Program **CATPP**	College Readiness Program **CRP**
Administrative Agency	**University of California, Berkeley**	**The California State University, with advice from a Statewide Intersegmental Advisory Board.**	**California Student Aid Commission, with advice from a Statewide Intersegmental Advisory Board and local advisory boards for each project.**	**State Department of Education**	**The California State University and the State Department of Education**
Institutional Participants	**Oakland and San Francisco school districts; University of California, Berkeley**	**15 school districts; 6 CCC campuses; 6 CSU campuses; 3 UC campuses; and 3 independent institutions represented in 10 local projects.**	**24 school districts; 20 CCC campuses; 9 CSU campuses; 8 UC campuses; and 11 independent institutions represented in 6 local consortia.**	**11 school districts; 10 CSU campuses; 8 UC campuses represented in 9 local projects.**	**12 school districts; 5 CSU campuses**
Program Objectives*	**To strengthen overall capacity of schools to prepare students for university-level work through improvements in curriculum, instruction, standards, counseling, management practices and processes, and schools' organizational capacity.**	**To improve secondary school curriculum and the ability of students to benefit from these improvements. (The voluntary assesment program component of CAPP will not be included in this study because its goals are not specifically student-centered).**	**To improve the flow of information about postsecondary educational opportunities in order to increase enrollment in postsecondary education.** **To raise the achievement levels in order to increase enrollment in postsecondary education.**	**To increase the number of students who take admissions tests.** **To improve performance on college admissions tests.** **To increase the number of students who enroll in public postsecondary education.**	**To increase enrollment of Black and Hispanic students in algebra and college preparatory English.** **To improve student and parent motivation and awareness of college.**
Service Components	**Site-based staff development** **Planning, coordination, and implementation assistance to staff** **Curriculum and organizational development support** **Student academic support**	**Curriculum development.** **Teacher in-service.** **Tutoring** **Advisement.** **Campus visits.** **Articulation.** **Summer programs** **Parent involvement.**	**Tutoring.** **Advisement.** **Campus visits.** **Summer residential programs.** **Test preparation workshops.** **Skill development classes.** **Assistance with the college application process.**	**Tutoring.** **Test preparation workshops.** **Support services.** **Parent meetings.** **Assistance with the college application process.**	**CSU interns provide academic assistance in math and English.** **Parental activities.** **Problem-solving instruction.** **CSU campus visits.** **Workshops on colleges.**
Resources:					
State	$0	$799,918	$577,000	$250,000	$396,900
Institutional	$850,000	$825,694	$976,381	$910,041	$121,098
Other	$400,000**	$126,300	0	$22,000	0
Total	$1,250,000	$1,751,912	$1,553,381	$1,182,041	$517,998

* Except where indicated otherwise, students referred to in program goals are those from American Indian, Black, Hispanic, and low-income backgrounds.

**University of California, Berkeley, Educational Fees.

Early Academic Outreach Program **EAOP**	Expanded Curriculum Consultant Project **ECCP**	Mathematics, Engineering, Science Achievement **MESA**	Middle College **MC**	University and College Opportunities Program **UCO**
University of California.	**University of California, with advice from members of the Intersegmental Committee of the Academic Senates of the public post-secondary systems.**	**University of California, Berkeley, with advice from a statewide intersegmental advisory board and local advisory boards for each center.**	**California Community Colleges.**	**State Department of Education.**
634 schools; 8 UC campuses.	**All postsecondary education systems have faculty who participate in this program serving 4 schools.**	**67 school districts; 10 CSU campuses; 4 UC campuses; and 4 independent institutions represented in 16 project centers.**	**2 school districts; 2 community colleges.**	**9 school districts; Local colleges and universities.**
To increase the pool of students eligible for admission to four-year postsecondary institutions.	**To improve curriculum and instruction in high schools.**	**To increase the number of students prepared to major in math-based fields in college.**	**To increase the number of high risk students who earn high school diplomas.** **To increase the number of high risk students who attend college.**	**To improve the preparation of elementary and secondary school students for participation in postsecondary education.** **To improve participation of Black and Hispanic students in college.**
Tutoring. **Skill development activities.** **Individual/group advisement.** **Assistance with college application process.** **Summer residential programs.** **UC campus visits.**	**In conjunction with the WASC accreditation and SDE self-study process:** **Summer institutes;** **Review of curricular and instructional practices; and** **Assistance in developing implementation plans.**	**Tutoring.** **Skill development classes.** **Visits to business and industry.** **Campus visits.** **Participation in science fairs.**	**Will be offering classroom instruction and tutoring beginning in the 1989-90 year.**	**Advisement.** **Staff development.** **Student recognition.** **Study skill instruction.** **Tutoring.** **College fairs.** **Campus visits.**
$4,383,527 **NR** **NR** **$4,383,527**	**$20,000†** **0** **0** **$20,000**	**$ 1,430,000** **$ 524,046** **$ 260,383** **$ 2,214,429**	**$130,000** **0** **0** **$130,000**	**0** **NR** **0** **NR**

† Exclusive of release time for faculty to be consultants.

DISPLAY 4 *Characteristics of the Secondary Schools Participating in Eight of the Programs During 1987-88*

	ACCESS/ CCPP	CAPP	Cal-SOAP	CATPP	CRP	EAOP	MESA	UCO
Total Number of Schools*	30	31	98	21	21	634	177	43
Middle/Junior High	23	10	20	0	21	276	63	21
Senior High	7	21	78	21	0	358	114	22
Total School Enrollment	26,143	32,455	110,241	34,456	20,274	185,124	293,030	68,148
Percent American Indian	0.5%	0.6%	0.7%	0.6%	NR	0.6%	0.7%	1.1%
Percent Asian	22.6%	11.4%	11.1%	15.6%	NR	13.0%	12.3%	20.1%
Percent Black	52.5%	13.1%	19.9%	12.4%	24.0%	14.5%	18.6%	24.7%
Percent Caucasian	8.4%	27.2%	44.5%	38.4%	NR	36.3%	26.2%	25.2%
Percent Hispanic	16.0%	47.4%	23.8%	33.1%	50.9%	35.5%	40.2%	28.9%
Total 1986-87 Graduating Class	2,023	5,653	20,257	7,353	NA***	88,106	41,295	10,795
Percent American Indian	0.3%	0.4%	0.5%	0.6%	NA	0.5%	0.5%	0.9%
Percent Asian	22.0%	13.7%	11.7%	16.8%	NA	14.5%	14.0%	20.8%
Percent Black	57.2%	13.6%	19.2%	12.4%	NA	14.3%	16.9%	28.9%
Percent Caucasian	11.2%	37.8%	51.4%	43.4%	NA	41.7%	36.2%	29.4%
Percent Hispanic	9.2%	34.4%	17.2%	26.9%	NA	28.9%	32.4%	20.1%
Total 1986-87 Enrollment in College Preparatory "A-F" Courses	561	1,491	5,439	1,920	NA	25,635	11,332	3,462
Percent American Indian	0.0%	0.2%	NR	0.5%	NA	NR	0.3%	0.3%
Percent Asian	34.6%	20.9%	NR	22.6%	NA	NR	25.8%	28.6%
Percent Black	39.9%	12.0%	NR	7.3%	NA	NR	12.3%	23.3%
Percent Caucasian	19.8%	46.6%	NR	52.5%	NA	NR	42.9%	32.8%
Percent Hispanic	5.7%	20.2%	NR	17.1%	NA	NR	18.6%	14.9%
Total Enrollment in College Preparatory Mathematics Courses	1,348	NR	20,266	2,568	NA	83,215	15,580	4,718
Percent American Indian	0.2%	NR	0.5%	0.4%	NA	0.4%	0.5%	0.7%
Percent Asian	32.9%	NR	20.8%	31.8%	NA	25.5%	32.0%	42.0%
Percent Black	39.4%	NR	11.7%	4.7%	NA	9.5%	9.3%	15.3%
Percent Caucasian	20.7%	NR	54.3%	48.7%	NA	45.2%	42.3%	32.0%
Percent Hispanic	6.9%	NR	12.7%	14.4%	NA	19.4%	15.8%	10.0%
Drop-Out Rate	7.9%	8.23%	NR	6.3%	NR	8.0%	NR	7.7%
Estimated Percent Low-Income Socio-Economic Level**	62.4%	NR**	NR	NR	58%	16.0%	NR	NR

Note: Two programs are not listed here because of their recent origin: The Expanded Curriculum Consultant Project (ECCP) began in 1988-89, and the Middle College (MC) is due to begin in the 1989-90 year.

* This figure, when summed across programs, does not represent an unduplicated count of schools because more than one program may deliver services at one school site.

** NR = Not Reported. *** NA = Not Applicable.

**** Definition of "low-income" varies by programs; there is a lack of comparability across programs on this category.

Source: California Postsecondary Education Commission.

and gender, as well as the programs' criteria for selecting student participants and their definition of "a served student." Unless specified otherwise, the students served are from economic, racial, or ethnic backgrounds historically underrepresented in postsecondary education. (Program managers found that data on the socio-economic level of students' families was difficult to collect, since it had not previously been gathered, but they have agreed to obtain this information for future reports in this series.)

Display 5 reveals that:

- The criteria for student selection varies widely among programs. Although often in combination, the major categories of criteria are:

  1. Enrollment in a course or courses that serve as the focus of the project (ACCESS/CCPP, CAPP, ECCP);

  2. Student achievement levels, as measured by test scores, grades, or prior course enrollment (CATPP, CRP, MESA, UCO); and

  3. Student interest in, and potential for, pursuing postsecondary educational goals (Cal-SOAP and EAOP).

- The definition of a "served" student across programs tends to be associated with the frequency and intensity by which program services are delivered.

- The total number of students reported as served by these programs in 1987-88 was 100,278. Most certainly, many students are counted more than once in this figure as they participate in components offered by more than one program, although these activities differ by service provider. The unduplicated number of individual students served in one year by these programs is difficult to determine with any certainty. However, a conservative estimate would be that approximately 68,000 students, or 3.5 percent of the seventh to twelfth graders attending public schools in the State, participated in at least one of these programs in 1987-88.*

- The majority of students participating in these programs in the 1987-88 year attended high school, with only CRP focusing exclusively at the middle or junior high school level.

- Considerable variation existed among the programs in their distribution of students by racial-ethnic background. Not surprisingly, however, given the population of California high schools in the 1987-88 year, Hispanic students comprised the largest group of participants across all programs.

- In all programs except ACCESS/CCPP and CAPP, females outnumbered males.

This information about the programs, participating schools, and students provides the basis for examining the extent to which the programs are effective in achieving their goals -- the topic of the next section of this report.

* Because the Early Academic Outreach Program (EAOP) is the largest of the ten programs, its 46,406 students served as a base for this estimate. Other programs were examined to determine if they were serving students in grade levels, school districts, and schools outside of the present scope of EAOP. On this basis, approximately 21,600 students were added, for a total unduplicated count of 68,000 students who participated in these programs during the 1987-88 school year.

DISPLAY 5 Characteristics of the Students in the Ten Programs in 1987-88

	Cooperative College Preparatory Program ACCESS/CCPP	California Academic Partnership Program CAPP	California Student Opportunity and Access Program Cal-SOAP	College Admissions Test Preparation Pilot Program CATPP	College Readiness Program CRP
Criteria for Student Selection	All students enrolled in college preparatory math and/or English classes at sites receiving assistance for teachers, counselors, and administrators.	Students enrolled in pre-college or college preparatory courses in English, math, science, social sciences, or foreign language	Students who are interested in pursuing postsecondary educational goals and can benefit from program services.	Students generally in the middle range of achievement who have been recommended by a teacher for participation.	Black and Hispanic middle grade students achieving at grade level in terms of achievement tests and grades along with teacher recommendations.
Definition of "Served" Student	Students whose teachers participate in on-going curriculum development and classroom-based staff development activities.	Students receiving direct services from the project in terms of its activity components.	Students participating in at least two individual advisement sessions or two academic support sessions, or a combination of both.	Students who participate in any program activity.	Students receiving direct services from program components.
Number of Students	11,500	6,711	26,705	1,951	999
Grade Level					
Below Seventh	15.5%	0.7%	0.0%	0.0%	3.6%
Seventh	28.3%	14.6%		0.0%	43.1%
Eighth	30.6%	8.1%	22.0%	0.0%	53.2%
Ninth	10.7%	27.1%		22.0%	0.0%
Tenth	5.8%	17.6%	76.0%	35.0%	0.0%
Eleventh	5.6%	21.7%		31.0%	0.0%
Twelfth	3.5%	10.2%		12.0%	0.0%
Other	0.0%	0.0%	2.0%	0.0%	0.0%
Racial-Ethnic Background					
American Indian	Unavailable, but percentages should reflect school figures in Display 4.	1.8%	4.0%	1.0%	0.0%
Asian		13.6%	16.0%	16.0%	0.0%
Black		12.3%	30.0%	20.0%	14.0%
Caucasian		33.35	8.0%	12.0%	0.0%
Hispanic		35.3%	40.0%	51.0%	53.0%
Other		3.5%	2.0%	0.0%	3.0%
Gender					
Female	49.9%	48.0%	56.0%	57.0%	59.9%
Male	50.1%	52.0%	44.0%	43.0%	40.2%

* NR = Not reported.

Early Academic Outreach Program **EAOP**	Expanded Curriculum Consultant Project **ECCP**	Mathematics, Engineering, Science Achievement **MESA**	Middle College **MC**	University and College Opportunities Program **UCO**
Students in seventh or eighth grade who have the potential to benefit from services to achieve eligibility and who are willing to take prescribed sequence of courses.	**All students in a school selected to participate in the expanded curriculum consultant project.**	**Junior High : Students scoring between 40-90 on CTBS, interested in math-based fields, and able to complete algebra in 9th grade.** **Senior High: Students currently enrolled in college preparatory math or science classes, interested in math-based fields, and willing to take A-F course pattern.**	**Students with a history of truancy, low academic achievement, and counselor recommendation.**	**Students who are successful in math and science, meet achievement criteria, and earn above average grades.**
Students who have individual contact with the program at least 3 times per year.	**Students enrolled in any course in which there is a curriculum consultant.**	**Students who regularly attend MESA activities, maintain minimum GPA, and enroll in prescribed courses.**	**Students participating in middle college full time.**	**Students who participate in any program activity.**
46,406	**Expanded project began in 1988-89.**	**6,006**	**New program to be started in the 1989-90 year.**	**Evaluative information now being collected.**
0.0% **44.5%** **55.5%** **0.0%**	**Expanded project began in 1988-89.**	**6.5%** **13.5%** **15.6%** **16.3%** **21.3%** **20.7%** **6.2%** **0.0%**	**New program to be started in the 1989-90 year.**	**Evaluative information now being collected.**
 2.2% **11.7%** **20.5%** **14.7%** **50.8%** **0.0%**	**Expanded project began in 1988-89.**	 **4.3%** **0.0%** **35.0%** **0.0%** **60.7%** **0.0%**	**New program to be started in the 1989-90 year.**	**Evaluative information now being collected.**
N/R* **N/R**	**Expanded project began in 1988-89.**	**56.5%** **43.5%**	**New program to be started in the 1989-90 year.**	**Evaluative information now being collected.**

4 *Effectiveness of the Programs*

METHODOLOGICAL challenges are inherent in assessing the effectiveness of student-centered programs in a school context. Clearly, schools are complex environments of a holistic nature not readily amenable to rigorous scientific experimentation that provides evidence of cause-and-effect relationships. Few opportunities or possibilities exist within this complicated maze of interactions to manipulate potentially relevant influences on student outcomes. Further, the occasion to manipulate these influences one at a time as required to establish a causal relationship is virtually non-existent. As a consequence, definitive attribution of the effects of a program on student behavior is problematic, if not statistically impossible.

Despite this caveat, inferences on program effectiveness can be drawn from an examination of two factors:

- The extent to which each program has met its stated objectives in the 1987-88 year; and
- College-going rates of the programs' participants as compared to those of California's 1987 and 1988 high school graduating classes at large.

Progress in meeting program objectives

For several reasons, four of the ten programs have had to be excluded from an analysis of their progress in meeting their objectives:

- The California Academic Partnership Program (CAPP) began its second funding cycle in the 1987-88 year. As such, information collected that year represents the base for assessing change in student achievement over time.
- Two programs -- the Middle College Program and Expanded Curriculum Consultant Project (ECCP) -- began after the 1987-88 year.
- The University and College Opportunities Program (UCO) is in the process of completing its evaluation for that year and those results will not be available for inclusion in this report.

Display 6 on pages 20-21 presents information on the extent to which the other programs have progressed in meeting their stated objective, as identified in the Commission's December 1988 *Prospectus for the Evaluation of Intersegmental Student Preparation Programs*. Each of these six programs presented impressive information on the extent to which students participating in them were preparing academically to enroll in college. In most instances, it was possible to compare the performance of their students with students statewide; whenever those comparisons were made, program students' performance was substantially better than the statewide average. Specifically, this display indicates that:

1. The performance of students in Oakland schools participating in ACCESS/CCPP has improved since the introduction of this program in 1980 on measures including enrollment in college preparatory math courses and performance on the UC/CSU Math Diagnostic Algebra Readiness and Pre-Calculus Tests.
2. The postsecondary enrollment rates of students participating in Cal-SOAP was substantially higher than those for all students in the counties in which these projects are located.
3. The level of preparation for college was higher among students participating in the College Admissions Test Preparation Program (CATPP) than students statewide on several measures, including proportion taking the SAT, college preparatory course enrollment and completion rates, grade point averages, eligibility to attend California public universities, and college aspirations.
4. The proportion of recommendations to enroll, and the actual proportion who enrolled, in college preparatory English and algebra was higher for students participating in the College Readi-

DISPLAY 6 Progress of Six Intersegmental Student Preparation Programs in Meeting Their Objectives

Cooperative College Preparatory Program
ACCESS/CCPP

Program Objectives:

1. **To increase the number of students prepared for university-level work with particular emphasis on preparation in mathematics, and to improve readiness of students to learn, as measured by course enrollments and achievement and test performance.**

Evidence of Effectiveness:

Math Course Completion Rates for Black and Hispanic Students in Two Oakland Schools

	1980	1988
Seniors meeting UC/CSU Advanced Algebra/Trigonometry requirement with at least a C	0.8%	8.4%
Students "on track" to meet UC/CSU math requirement by graduation	7.9%	23.8%
Students completing algebra or geometry by the end of 10th grade	11.5%	31.0%

Performance on UC/CSU Algebra Readiness Test (ART) in Eleven Intensively-Served Oakland and San Francisco Middle Schools

	1987	1989
Number of students taking ART	747	1275
Proportion scoring above minimum threshold	30.1%	39.5%
Proportion scoring above high threshold	10.8%	12.9%

Performance on UC/CSU Math Diagnostic Precalculus Test (MDT) in Three Intensively Served Oakland Schools

	1985	1989
Number of students taking MDT	40	71
Mean percent correct	47.1%	62.9%
Proportion scoring above minimum threshold	45.0%	67.6%

2. **To improve curriculum and its implementation, as measured by expert judgment and teacher reports.**

Evidence of Effectiveness:

- **Core math curriculum and core semester examinations developed for all college preparatory math courses taught in the school district in grades 7 through 12.**
- **Improved instructional practices**
- **Full articulation of the math curriculum from grades 7 through 12 and aligned with the State Department of Education's "Framework."**
- **Higher standards of textbooks and curriculum comparable to better-than-average high schools across the State.**

California Student Opportunity and Access Program
Cal-SOAP

Program Objectives:

1. **To improve the flow of information about postsecondary educational opportunities in order to increase enrollment in postsecondary education, as measured by comparison with other student populations.**

Evidence of Effectiveness:

Postsecondary Enrollment Rates for 1988 High School Graduates

	Students in Cal-SOAP	Students in Cal-SOAP Counties
University of California	11.1%	8.9%
The California State University	13.2%	11.0%
California Community Colleges	36.7%	36.2%
Independent California Colleges and Universities	2.9%	3.8%
Total	64.0%	39.9%

2. **To raise the achievement levels of students served by this program, as measured by course performance.**

Evidence of Effectiveness:

Information available on this objective will be included in the next report in this series.

College Admissions Test Preparation Pilot Program
CATPP

Program Objectives:

1. **To increase the number of students who take admissions tests, as measured by changes in college admissions test-taking in participating schools.**

Evidence of Effectiveness:

College Admissions Test Involvement of California High School Graduates in 1988

	Seniors in CATPP	California Seniors
Number of seniors taking the SAT	56.0%	47.0%
Black and Hispanic seniors taking the SAT	66.0%	18.0%

2. **To improve performance on college admissions tests, as measured by changes in admissions test performance in participating schools.**

Evidence of Effectiveness:

Mean SAT score in 1988

Verbal	358	424
Math	428	482

3. **To increase the number of students who enroll in public postsecondary education, as measured by changes in "A-F" course enrollment patterns, four-year college eligibility rates, and student motivation.**

Evidence of Effectiveness:

	Students in CATPP	California Students
Seniors' "A-F" completion rates	76.0%	28.0%
Seniors' "A-F" enrollment rates	77.0%	45.0%
Seniors' mean grade-point average	2.90	2.60
Seniors eligible to attend the California State University	32.0%	27.5%
Sophomores enrolled in geometry	30.0%	36.0%
Sophomores enrolled in biology	65.0%	56.0%
Sophomores aspiring to attend four-year institutions	76.0%	50.0%

Source: California Postsecondary Education Commission.

College Readiness Program
CRP

Program Objectives:

1. **To increase enrollment of Black and Hispanic students in algebra and college preparatory English by 30 percent, as measured by changes in these course enrollments in the ninth grade.**

Evidence of Effectiveness:

Recommended Ninth Grade Course Enrollments for Eighth Graders in Schools Participating in the CRP Program

	Eighth Graders in CRP	Eighth Grade School Population
Algebra	53.0%	22.0%
College Preparatory English	63.0%	29.0%

Ninth-Grade Course Enrollments in Schools Participating in the CRP Program in 1988

	CRP Participants	Comparison Group of Academically Similar Students
Algebra	59.0%	54.0%
College Preparatory English	73.0%	56.0%

2. **To improve student and parent motivation and awareness of college, as measured by pre- and post-program attitude survey.**

Evidence of Effectiveness:

- **90.0 percent of students participating in CRP reported an increase in their desire to attend college.**
- **Only 7 percent of the participating students indicated that CRP had not enhanced their motivation to attend college.**
- **Site coordinators reported that students were enthusiastic about attending college after participation in CRP in contrast to their plans prior to program participation.**

Early Academic Outreach Program
EAOP

Program Objective:
To increase the pool of students eligible for admission to four-year postsecondary institutions, as measured by the eligibility rate of program participants to attend the University of California or the California State University.

Evidence of Effectiveness.

University of California Eligibility Rates for 1988 EAOP and 1986 High School Graduates Statewide by Racial-Ethnic Category

	1988 Graduates Participating in EAOP	1988 Graduates Statewide
Asian	53.9	32.8
Black	41.2	4.5
Filipino	51.4	19.4
Hispanic	38.8	5.0
White	26.3	15.8
Total	40.9	14.1

Number of 1988 EAOP and 1986 High School Graduates Statewide Eligible for the University of California by Racial-Ethnic Catgory

	1988 Graduates Participating in EAOP	1988 Graduates Statewide
Asian	293	18,902
Black	1,196	18,051
Filipino	315	4,931
Hispanic	2,441	42,975
White	171	139,270
Total	4,416	224,129

Mathematics, Engineering, Science Achievement
MESA

Program Objective: To increase the number of students prepared to major in math-based fields, as measured by enrollment in college preparatory math and science courses and enrollment in math-based fields in college.

Evidence of Effectiveness:

Public High School Course Enrollment and Completion Rates

	1989 MESA Completion Rates	1987 State Enrollment Rates		
		Total	Black	Hispanic
Advanced Mathematics	91.1%	14.8%	6.8%	6.8%
Chemistry	90.4%	43.1%	35.7%	29.7%
Physics	75.8%	17.2%	9.8%	8.2%

Scholastic Aptitude Test Participation

	1988 MESA Completion Rates	1987 State Participation Rates		
		Total	Black	Hispanic
Seniors Taking the SAT	70.7%	50.5%	38.5%	22.6%

- **More than 70 percent of MESA's high school seniors enrolled in college in Fall, 1988; the remainder were not located or, in 12 cases, were not in college**
- **Of those 1988 high school seniors who enrolled as freshmen in college, 56.6 percent declared a math-based major; another 15 percent are expected to declare a math-based major as juniors.**
- **The educational progress of 81.6 percent of the 1983 students who participated in MESA while in high school was monitored throughout their college careers. Of those, 96.5 percent were still enrolled in college or had graduated by 1987.**

ness Program (CRP) than all students in the participating schools.

5. The rate at which students participating in the Early Academic Outreach Program (EAOP) were eligible to attend the University was substantially higher than the rates for all students statewide as well as for each racial-ethnic group for which comparable information was available.

6. The proportion of students participating in the Mathematics, Engineering, Science Achievement (MESA) program who were prepared for college, as measured by completion of advanced math and science courses in high school and who fulfilled the college admissions test-taking requirement, was substantially higher than that of all students in the State.

These findings are particularly significant in light of the fact that the students who participated in these programs were predominantly from backgrounds historically underrepresented in postsecondary education and the State population that formed the comparison group for these analyses consisted of a majority of students from backgrounds that have traditionally prepared to attend college.

Postsecondary enrollment rates

The ultimate criterion of effectiveness for student preparation programs is the extent to which participating students enroll and succeed in postsecondary education. Although information is rarely collected on the progress in college of students who participated previously in these programs, three programs provided information on the college-going rates of their high school graduates.

Display 7 below compares the enrollment rates of students in Cal-SOAP, EAOP, and MESA with their California graduating classmates in 1987 and 1988. It reveals that:

- Students participating in each of these programs enrolled in college in greater proportions than their classmates statewide. In particular, the percentage of students served by each of these programs who enrolled in baccalaureate degree-granting institutions was higher than their statewide counterparts. Again, this fact is significant as a demonstration of the effectiveness of these programs; however, this result is especially impressive when recalling that these programs serve students historically underrepresented in postsecondary education, while the comparison group consists of a majority of students from backgrounds that have traditionally enrolled in college.

- The programs' selection criteria influences college-going rates. As Display 5 in Part Three indicated, the selection criteria for participating in MESA is that high school students must be enrolled in college preparatory math or science courses and express an interest in pursuing math-based majors in college. EOAP selects students in the seventh or eighth grade on the basis

DISPLAY 7 Postsecondary Enrollment Patterns of Cal-SOAP, EOAP, and MESA Graduates and All California Public High School Graduates in 1987 and 1988

Postsecondary Institutions	1987 Cal-SOAP Graduates (N = 4,157)	1988 EAOP Graduates (N = 4,269)	1988 MESA Graduates (N = 577)	1987 Total State Graduates (N = 237,414)	1988 Total State Graduates (N = 249,518)
University of California	11.6%	27.8%	29.1%	7.7%	7.6%
The California State University	10.4	22.1	22.3	10.7	10.7
California Community Colleges	35.5	24.1	4.7	34.4	34.4
Independent Institutions	3.3	7.1	12.2	3.4	3.0
Total California Postsecondary Enrollment	60.5	81.1	68.6	56.2	55.7
National Baccalaureate-Granting Institutions	N/A	4.8	8.8	N/A	N/A
Total Postsecondary Enrollment	60.5%	85.9%	77.4%	56.2%	55.7%

Source: California Postsecondary Education Commission.

of potential and willingness to enroll in the "A-F" sequence of courses while in high school; however, according to the report submitted by EOAP, "students who show a lack of interest in meeting these criteria or who do not plan to attend college are referred to other, more appropriate programs or services." As a consequence, continuation in EOAP through high school graduation depends upon the stability of a student's plan to attend college as demonstrated by enrollment in courses preparatory for that plan. On the other hand, the selection criteria for participation in Cal-SOAP is a student's interest in pursuing postsecondary educational opportunities -- a more general criteria than that used by either MESA or EOAP. These results reflect the influence of a program's selection criteria on college-going patterns: EOAP and MESA participants enrolled in baccalaureate degree-granting colleges and universities at a higher rate than students who participated in the Cal-SOAP program.

Unanticipated program outcomes

Several unanticipated outcomes of significance were reported by these programs:

- Employment as advisors or tutors for secondary school students participating in these programs appears to influence the career choices of college students. While CRP specifically incorporated this outcome into its program design, CAPP and Cal-SOAP report that the opportunity provided by these programs to explore educational careers impacted decisions made by college student employees about their own futures. Because many of these student employees are from backgrounds underrepresented in the education profession, these programs are contributing serendipitiously to the achievement of the State's priority to diversify the faculty of schools and colleges.
- The presence of these programs changes the curricular offerings and course enrollment patterns at the participating schools. Both ACCESS/CCPP and MESA report that higher level math courses were added to course schedules at participating schools. Further, ACCESS/CCPP reports that larger numbers of students in these schools are completing math courses in the college preparatory sequence, particularly algebra and geometry, in contrast to general or consumer math.
- Teachers in program schools have opportunities to participate in valuable professional development activities. Opportunities are available for these teachers to participate in program-specific activities conducted by CAPP or the MESA Annual Advisors Conference, for example, or in statewide in-service programs such as the California Writing Project or California Mathematics Project. These experiences ultimately benefit all students at the school due to enhanced teaching skills.
- Concomitant with the general improvement in teaching offered at these schools, the quality and availability of information on the "college-going" process for all students at sites is enhanced by the presence of these programs.

The existence of these programs at a school site contributes to the development of a critical mass of students preparing to attend college. Through MESA periods and Cal-SOAP development classes, for example, students with similar post-high school plans have the opportunity to develop networks and alliances that, in a period of intense peer pressure, can support mutual achievement of high aspirations. Further, these goals have a ripple effect on the school as a whole as more students seek to become involved in these activities.

By far, the most dramatic and potentially far-reaching outcome reported by these intersegmental programs concerns the establishment and continuation of relationships among professionals across putative educational boundaries, either at school sites or across systems. At some ACCESS/CCPP and CAPP sites, school-wide efforts involving teachers, counselors, and administrators developed from program-specific activities, and these efforts have been institutionalized as a means to ensure their continuance. And Cal-SOAP, MESA, and ECCP have established relationships and processes across system lines in order to accomplish program-specific objectives. From these initial programmatic thrusts, these collaborations have taken on a life of their own and have expanded to address myriad educational issues beyond the purview of a specific project. While many of the specific goals of these programs may be achievable through a single-system effort, their intersegmental nature holds the promise -- realized, to some extent, by those programs that have existed

for a substantial period of time -- to enhance substantially the educational experience for all students, but particularly the preparation for college of those from backgrounds historically underrepresented in postsecondary education.

5 *Conclusions and Recommendations*

THIS PROGRESS report is of an experimental nature. As such, its conclusions are necessarily general and focused on the previously discussed data regarding the effectiveness of programs in achieving their objectives and meeting statewide educational equity goals. Its recommendations are directed to strengthening future reports in this series by including further information for program and policy decision-making.

Conclusions

Four major conclusions emerge from the Commission's study of ten intersegmental student preparation programs:

1. The six programs that reported results in terms of student achievement demonstrate evidence of effectiveness in meeting their objectives. This evidence substantiates that participation in these programs is associated with enhanced levels of preparation for college, as measured by course completion patterns, college admissions test performance, classroom achievement, and college-going rates. Further, students participating in these programs enroll in college in greater proportion than their classmates statewide, despite the fact that this statewide comparison group consisted of a majority of students from families who traditionally prepare for, and enroll in, college, whereas the program participants were from backgrounds historically underprepared for, and underrepresented in, college.

   These programs assisted 68,000 students to prepare for, and pursue, their postsecondary educational aspirations in the 1987-88 year. Without this "safety net," which is needed until schools develop instructional strategies and environments that foster achievement for all students, the evidence is clear that the vast majority of the students served by these programs would neither be academically ready for, nor enrolling in, college.

2. These programs serve as a laboratory to experiment and identify those practices and activities that positively impact student achievement. In particular, practices initiated by these programs have demonstrated their effectiveness in:

   - Assisting to develop curricular and instructional strategies that enhance the teaching/learning process and the schools' capacity to educate all California students;
   - Supporting and supplementing classroom instruction, particularly for those students who need individual or small-group assistance to master skills and content.
   - Motivating students to pursue postsecondary education through providing opportunities to become familiar with campus life, successful university students and alumni, and professions requiring a college degree; and
   - Facilitating the process by which students learn about, and apply for, college admission and financial aid.

   These practices and activities were developed by programs whose clientele reflects the demographic changes now occurring in the general student population of the public schools in California. From these pilot and experimental programs, the State has gained valuable information about the efficacy, effectiveness, and resource requirements of practices, services, and activities that facilitate or inhibit academic achievement, particularly for those students from backgrounds that constitute an increasingly larger proportion of California learners. As such, this experimentation should serve to guide the formation of policy regarding student achievement in general and progress in reaching the State's educational equity goals in particular.

3. A major strength of these programs is their intersegmental character. Not only do individual students benefit from the activities and services implemented by these programs, but the occasion to bring together school and college personnel from various postsecondary systems fosters a process for addressing myriad educational challenges in addition to focusing on specific program implementation. Indeed, the opportunity to encourage this collaborative spirit through regular meetings and development of intersegmental activities may be one of their most powerful and lasting outcomes.

4. Progress in developing a society in which the composition of individuals at all educational levels reflects the State's population -- the definition of educational equity adopted by the Commission and discussed in Part Two of this report -- cannot be expected to be achieved by these programs alone, either individually or collectively, for several reasons:

   - *Number of students participating in the programs*: In 1987-88, an estimated 825,000 American Indian, Black, and Hispanic students were enrolled in California public schools in grades seven through twelve. Approximately 68,000 of them participated in intersegmental student preparation programs that year. Even assuming, for purposes of illustration that all of these participants were from backgrounds historically underrepresented in college -- an assumption unsupported by the figures in Display 5 -- then less than 8 percent of all American Indian, Black, and Hispanic students in grades seven through twelve statewide benefited from these ten programs that year.

     In other words, while these programs clearly benefit individual students, these benefits cannot affect educational equity significantly because of the small proportion of students throughout California participating in them. For example, the rate at which Black and Hispanic students participating in the Early Academic Outreach Programs achieve eligibility to attend the University of California exceeds the statewide rate for these groups by factors of nine and eight, respectively; but 96 percent of students from these backgrounds statewide do not participate in this program. Because of this imbalance in the proportion of students served by this program throughout California, the eligibility rates statewide are virtually unaffected by this program's positive impact on participating students.

   - *Resources allocated to these programs*: In the 1988-89 year, the State appropriated a total of $7,987,345 to these programs -- 0.025 percent of the State Budget and approximately $117.45 for each participating student. To expand those programs that have demonstrated their effectiveness in order to serve even 25 percent rather than the current 8 percent of eligible students would require an additional $16.2 million, based on this cost-per-student figure. To reach all the eligible students would require $96.9 million each year, or 0.3 percent of General Fund revenues in 1988-89 -- a level of State resources that neither the Governor nor Legislature has committed in order to achieve educational equity goals.

   - *State policy on educational equity*: To date, California policy-makers have not articulated a coherent State policy on educational equity. As such, these programs are inhibited from developing long-range plans to achieve their goals because the Governor and Legislature tend to change, in mid-stream, their criteria for assessing program effectiveness. Until these programs function in a stable environment in terms of both State policy and resource allocation, they will be compelled to function in an ad hoc manner -- a manner inconsistent with developing long-term strategies for achieving program objectives or addressing statewide priorities. This situation, coupled with a lack of adequate resources, inhibits achievement of Statewide educational equity goals.

Clearly, substantial progress in achieving these goals depends primarily on the systemic enhancement of learning among all students in all California classrooms and of the schools' capacity to educate all of California's children to meet the challenges of the twenty-first century. Because these programs, although they may assist the process, are not substitutes for the funda-

mental school reforms that are needed to address the myriad school-based challenges described earlier in this report, it is unrealistic to evaluate them on the extent to which they contribute significantly to statewide movement toward enhanced levels of preparation for, and success in, college of American Indian, Black, and Hispanic students. Similarly, they alone cannot be expected to demonstrate progress in narrowing the disparity between the enrollment patterns for students from backgrounds historically underrepresented in postsecondary education and students who have traditionally attended college in the past.

Recommendations

In order to respond to the legislative directive initiating this report, the Commission offers the following recommendations to guide the preparation of future reports in this series:

1. **Statewide offices should submit to the Commission by July 1 of each of the next two years:**

   - **A summary describing the demographics of the schools in which these programs operate;**
   - **A summary describing the characteristics of the students participating in these programs; and**
   - **Evaluative information on the programs for the preceding academic year.**

   The specific information to be included in the reports due by July 1, 1990 will be developed by Commission staff and the Advisory Committee to this study by February 1 and transmitted to the statewide offices by February 15.

2. **Commission staff should convene meetings of program staff to develop greater familiarity with sources of information on the demography and student achievement of schools statewide. As a consequence of these meetings, subsequent reports in this series should include more accurate and comparable information with respect to the schools that participate in these programs. The Commission hopes that these meetings will foster the development of greater community and expertise among program staff of all the programs described in this report.**

3. **The next report in this series should focus on identifying those components, activities, and services of the programs that contribute most to students' decisions to prepare for and attend college. In order to do so, statewide offices should develop procedures to identify the strength of the relationship between individual program components and measures of student preparation.**

4. **Statewide offices should provide information on program effectiveness at the project or center level, including comparisons between local site and county college-going rates. Coupled with the analysis of program components, this evidence of variations in effectiveness among projects may provide valuable information for identifying those program strategies to recommend for statewide replication and the appropriate contexts for such replication.**

5. **As part of the second progress report, Commission staff, in conjunction with program officers, should prepare a profile of these programs in terms of participating schools statewide. In this way, policy-makers will be assisted in examining patterns in service delivery and coordination among programs.**

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Appendix A

Alliance for Collaborative Change in Education in School Systems/The Cooperative College Preparatory Program (ACCESS/CCPP)

1989 PRELIMINARY REPORT ON ACCESS/CCPP

Submitted to the
California Postsecondary Education Commission
July 14, 1989

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ALLIANCE FOR COLLABORATIVE CHANGE IN EDUCATION IN SCHOOL SYSTEMS/THE COOPERATIVE COLLEGE PREPARATORY PROGRAM (ACCESS/CCPP)

PROGRAM DESCRIPTION

ACCESS/CCPP was established in 1980 by the University of California at Berkeley to assist its neighboring middle, junior high and high schools in developing their institutional capacity to prepare underrepresented ethnic minority students for college. Ultimately the program works toward strengthening the schools' college preparatory courses and developing the capability of all students to successfully take those courses and as a result vastly expand the number of minority students who can qualify for and compete successfully in college. The program presently serves in varying degrees 23 middle and junior high schools and seven high schools in the Oakland and San Francisco school districts. Core funding ($400,000 in 1988-89) for the program is provided by the university while more than two-thirds of the program's ongoing operating costs ($850,000 in 1988-89) are provided by the districts.

School and Community Context in which ACCESS/CCPP Functions

Oakland and San Francisco are two of California's largest urban school districts. They are both highly diverse communities, with large Black, Hispanic, Asian, and other minority communities. The schools in which ACCESS/CCPP has been working draw from populations of low socio-economic status. Many face in varying degrees a wide range of obstacles that limit students' access to college preparatory courses and that have come to be characteristic of a majority of urban schools.

Typically, problems faced by these schools reinforce each other and are compounded by a dynamic among them that promotes a self-perpetuating cycle of failure. Low student achievement and weak curriculum are reinforced by low expectations and standards, which in turn are reinforced by a lack of adequately prepared teachers, and instructional practices that do not engage students. These problems are compounded by extreme peer pressures not to take school seriously, a general lack of involvement of parents in their children's education and school, student advising and programming practices that tend to exclude students from college preparatory courses, and policies, management practices, and school organization that tend to foster a negative learning and teaching environment.

Intense fiscal pressures, frequent changing policies, a lack of long-range planning, and an annual consolidation of teachers and reassignment of administrators exacerbate these conditions, resulting in a lack of continuity and stability in the schools' academic programs. These conditions lead inevitably to low student motivation and teacher morale, teacher burnout and isolation, a disenfranchisement of student, teacher, and administrator communities, and a general lack of hope that conditions could be any different. Many of the schools are in ongoing states of crises. Staff in some schools find themselves starting over again each year, while staff in others are too overloaded to do anything more than survive. Neither the schools nor the districts have a management infrastructure that can support significant change or have a strong capacity to address implementation problems on an ongoing basis. Overall, these problems have a particularly detrimental effect on Black and Hispanic students.

The ACCESS/CCPP Approach

To increase minority access to higher education, ACCESS/CCPP works toward developing the institutional capacity of the schools to address these problems. ACCESS/CCPP assists each school in undertaking an extensive school-based change process that is centered around the strengthening of its math, English, and counseling programs and the implementation of extensive curriculum and instructional reforms, and which moves toward the gradual restructuring of the learning and teaching environment. ACCESS/CCPP addresses problems in all their complexity, as they interact with each other--not just one or two in isolation--and works toward breaking the dynamics and "endemic system of negative incentives" that perpetuate them. The program is structured to address the issues of minority access to higher education at the broadest levels. It seeks to bring about fundamental changes in the schools that would enable them to greatly expand the pool of students who could go to college.

Objectives

Objectives for this change process fall into two categories. The first category includes ways to improve the quality of courses and student access to those courses. It involves: 1) strengthening math and English curriculum; 2) improving the quality of instruction; 3) raising expectations and standards; 4) strengthening the quality of academic and college advising, master schedule planning, and programming procedures; and 5) developing ways of motivating, engaging, and supporting students.

The second category includes developing the organizational infrastructure, processes, roles, relationships, policies, and

management practices required to support teachers and to bring about and sustain changes. This involves assisting the schools in developing processes for 1) collaborative problem solving and planning and shared decision making; 2) assessing and revising policies; 3) developing, evaluating and revising curriculum and instructional practices; and 4) monitoring student progress. It also involves empowering teachers to take more active leadership roles in their schools, building a professional community, and developing the schools' and districts' internal staff development capability through the training of teams of lead teachers.

The Staff-and-School-Development Model

The staff-and-school development model introduced by the program is systems-oriented, evolutionary in its approach to change, readily adapted to individual schools, and focused on the area of teachers', counselors', and administrators' greatest need--implementation. Key to the model is the introduction into the schools of two new staff roles--coordinators and teaching assistants. The coordinator combines the characteristics of a coach, curriculum and instruction specialist, process facilitator, and change agent and works primarily with teachers, counselors, and administrators. The teaching assistant combines the characteristics of a curriculum specialist, instructor, and academic advisor and works primarily with students in their classrooms. The coordinator's role lies at the heart of the staff-and-school development model. The teaching assistant's role complements the coordinator's and serves to accelerate the improvement process. Teaching assistants have worked in selected classes. If funds were available they would work in all classes.

Each coordinator works in several schools where, depending on their subject matter specialty, they guide either the math or English curriculum and instructional improvement process and, in collaboration with other coordinators, they guide the staff-and-school-development process. They do so by establishing and facilitating essential processes for revising curriculum and school practices and restructuring the learning and teaching environment. They provide a wide range of technical assistance, staff development, and implementation support at school sites to teachers, counselors, and administrators through a combination of conferencing, joint planning and problem solving, modeling, coaching, and group presentations. This process takes place primarily in the context of the school's day-to-day operations.

This support is undertaken collaboratively and is non-evaluative. It is oriented toward addressing individual, department, and school needs as they arise--in process--as teachers prepare their classes, or as specific counseling or management issues emerge. It supports an individual's growth in all areas in which they work rather than emphasizing one or two practices in isolation, and is conducted in

a way so that changes in one area will build on or reinforce changes in other areas and keep the school development effort moving forward.

Teaching assistants work with the coordinators and classroom teachers in teams to provide an ongoing support system for students that, in many respects, is comparable in its scope to the support given by the coordinators for teachers, counselors, and administrators.

Teaching assistants provide teachers with additional planning and problem solving support, assistance in teaching materials or implementing ideas introduced in workgroups or conferences by the coordinators, provide classroom demonstrations, and critique students' work. They co-teach selected math and English classes a minimum of two days per week where they provide students with individualized and small group instruction and academic and motivational support, and they conduct special classes held before, during and after school where they continue their work with students by providing tutoring and college advising support. The power of the teaching assistant's role lies in its providing opportunities for the teaching assistants to build relationships with students while teaching their classes that then allow them to assist and follow up with students at crucial times.

The staff development, technical assistance and implementation support for teachers, counselors, and administrators and the support for students provided by the coordinator and teaching assistants are continuously coordinated and integrated into a comprehensive process for school development. Through this multi-tiered process students receive improved instruction from their teachers in a more rigorous curriculum along with the benefits of personal assistance coming from a lower student/teacher ratio and ongoing guidance and support outside of class. At the same time, teachers benefit from an integrated program of staff development and implementation support as they build their knowledge of the curriculum and repertoire of instructional practices and as they build, along with counselors and administrators, the school's organizational capacity to support their work in the classroom. As part of the implementation process the coordinators model a unique characterization of a lead teacher's role which ultimately will be transferred to site teachers as the change process enters its final stages of institutionalizing the staff and school development model into the schools.

ACCESS/CCPP's Relationship to Other Programs And School-Based Activities

The program is designed to address, over long periods of time, deep problems in many areas within the schools in order to build up the population of students, with a focus on Black and Hispanic students, who are prepared for college, and to build the capacity of the teachers, counselors, and administrators as well as that of the system as a whole to sustain and further increase this population. The program focuses primarily on increasing the schools' output of college-eligible students rather than providing more intensive services for relatively small numbers of targeted students throughout their high school career. As such the program is more concerned with how many students become eligible, than it is with who becomes eligible.

ACCESS/CCPP is school focused. It is aimed at developing opportunities for all students in a school to take college preparatory courses and works directly or indirectly with every student in a college preparatory math or English course. Every student in the school participating in any other intersegmental program would automatically be served by ACCESS/CCPP.

ACCESS/CCPP works to strengthen the students' basic math and English instruction through improving the schools' programs and developing a support system within the schools for students. It is complemented by other intersegmental programs that supplement the students' basic academic program through tutoring, motivational support, and special coursework outside of the school context.

ACCESS/CCPP could be looked upon as a base program (in particular for students served by other intersegmental programs). It provides a follow-up capacity that other programs might be able to build on. At the middle school level ACCESS/CCPP works to develop a large pool of students from which those other programs can draw.

ACCESS/CCPP does not provide special courses to prepare students for SAT, special motivational activities, or Saturday or summer activities/courses.

History of the Program's Expansion and Degree of Implementation

The ACCESS/CCPP-Oakland Partnership

ACCESS/CCPP was first introduced in 1980 to strengthen the mathematics programs of Oakland's Castlemont and Fremont high schools and their six feeder middle and junior high schools[1]. In the fall of 1985 it was introduced to Oakland Technical High School and in the spring of 1986 it was expanded to help strengthen the English programs of all three high schools.

In the fall of 1987, ACCESS/CCPP began involving key English teachers from Castlemont's and Fremont's feeder schools, and math teachers and counselors from Oakland's remaining twelve middle, junior high, and high schools[2] in the program's staff development workgroups. In the fall of 1988, coordinators began providing implementation support in math in nine of these new schools--the middle and junior high schools. As part of a district plan to institutionalize the program, coordinators began the preparation of key middle, junior high and high school math and English teachers to assume lead teachers roles in their schools, and began the preparation of two district math teachers to assume full-time coordinator roles, serving eight middle and junior high schools.

The ACCESS/CCPP-San Francisco Partnership

In the fall of 1986, ACCESS/CCPP was introduced to five San Francisco middle schools[3] to strengthen both their math and English programs. In the spring of 1988, the English component was introduced to a sixth middle school[4] and the math component was added the following fall. Also in the fall of 1988 both math and English components were introduced to an additional two middle schools[5] and one district English teacher began her training as a coordinator as part of a district plan to institutionalize the program. In the spring of 1989 ACCESS/CCPP expanded again to

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[1] Elmhurst, Frick, Havenscourt, King Estates, Madison, and Calvin Simmons middle and junior high schools.

[2] McClymonds, Oakland, and Skyline high schools, and Brewer, Carter, Claremont, Foster, Bret Harte, Lowell, Montera, Roosevelt, and Westlake middle and junior high schools.

[3] Martin Luther King, Jr., James Lick, Horace Mann, Potrero Hill, and Visitacion Valley middle schools.

[4] Benjamin Franklin Middle School.

[5] Everett and Luther Burbank middle schools.

introduce the English component to one San Francisco high school.[6] The program also began involving English teachers from five additional San Francisco high schools in staff development activities aimed at articulating the English programs of those high schools with the English programs of the middle schools in which the program has been working.

Implications of the Program's Expansion

The rapid expansion of the program in both districts over the last two years and the training of lead teachers to implement it is part of broad plans of both districts to disseminate the program in stages to all their middle, junior high, and high schools and eventually institutionalize it. To fund these plans, however, funds have been diverted from teaching assistant salaries to coordinator salaries. As a result, teaching assistants have been temporarily withdrawn from all the middle and junior high schools in which the program has been working, leaving them, in 1989-90, working only in Oakland's Castlemont, Fremont, and Oakland Technical high schools. As a consequence of this decision, it is expected that student progress for the next few years will not be as rapid as in previous years.

EVALUATIVE INFORMATION

The evaluative information in this report reflects ACCESS/CCPP's impact on the schools involved in the program since 1986--Oakland's Castlemont, Fremont, and Oakland Technical high schools, Castlemont's and Fremont's six feeder middle and junior high schools, and the five San Francisco middle schools in which the program was established in 1986--and focuses primarily on the outcomes of efforts to improve the schools' math programs. Subsequent reports will provide evaluative information on schools in which the program has been established since 1987 and will provide detailed information on the outcomes of the program's efforts to improve the schools' English programs. This section summarizes available information on the items specified in the evaluation prospectus submitted earlier this year (see Appendix 1). The information on the Oakland and the San Francisco programs is presented separately and is elaborated in Appendices 2 and 3.

A long-range goal of the program's documentation efforts is to determine if a system has been put in place which would support students' access to college preparatory courses. The evaluation design has two objectives: 1) to determine if trends are being established that collectively show a gradual building up of the number of students taking college preparatory math and English

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[6] Woodrow Wilson High School.

courses at lower grade levels leading to gradual increases at the upper grade levels, and 2) to show that enrollment gains leading to eligiblity are not due to lowered course standards and that in fact course standards have been raised to assure the students' competitiveness at the college level. Documenting the strength of these courses and monitoring students' test performances is critical to validating the meaningfulness of enrollment gains.

Because ACCESS/CCPP has little direct control or influence over students' performance in all their A-F courses, the principal measure of success would be indicated by increases in the number of students completing the math and English course requirements for eligibility.

Oakland Program

The Oakland program reflects years of work primarily in building and sustaining a continuous and articulated math program and support system for students, teachers, counselors, and administrators in Castlemont and Fremont high schools and their six feeder middle and junior high schools. Where the inability of students to fulfill the math requirements for eligibility to the UC or CSU systems was seen as the principal barrier to achieving eligibility, the program was originally focused on increasing the number of students who complete the full college preparatory math sequence through advanced algebra or precalculus and on strengthening the curriculum and standards of those courses so that the students would be competitive at the college level.

The program's expansion over the last three years to strengthen the high schools' English programs was initiated for two reasons: 1) as many more students began completing more (advanced) college preparatory math courses, they were not taking the full sequence of college preparatory English courses and that the courses themselves were extremely weak; 2) by 1985, there was a lot of evidence that the synergistic effect of the program's working with both the math and English departments coupled with an expansion to working with key social studies and science teachers, would accelerate student development at a far greater rate than working with any one department separately. This data is now in the process of being analyzed and will be presented in subsequent reports. The following section reports basically on the outcomes of efforts to improve the schools' math programs.

Overview of Oakland Results

Results show progressive growth in 1) the number and percent of Black and Hispanic students completing college preparatory math courses at all levels, 2) their test scores, and 3) their college admissions. It also yields evidence that the quality and standards of the courses have improved as well. Results also show

substantial progress in the institutionalization of the program. For more detailed information on the following results, see Appendix 2.

A. Course Completion Data

Between 1980 and 1988 the percentage of Black and Hispanic students in Castlemont's and Fremont's feeder schools and in Castlemont completing algebra in the 9th grade rose from 7.6% (104) to 17.8% (188) (Chart 1). The percentage of these students going on to complete geometry in the 10th grade rose from 3.9% to 17.1% (Chart 2). Furthermore the percentage of Black and Hispanic 10th grade students at Castlemont and Fremont completing algebra or geometry at the high schools rose from 11.5% (140) to 31% (305) (Chart 8).

This growth has been accompanied by a dramatic redistribution at the high schools, across all grade levels, of enrollments from remedial (below algebra) classes into college preparatory (algebra and above) classes. At Castlemont, the percentage of Black and Hispanic students taking algebra or above rose from 21.4% to 36.2%. At Fremont, the increase was from 14.3% to 32.7% (Chart 3). These gains were also accompanied by a significant increase in the average number of math courses at the algebra or above level taken by graduating Black and Hispanic students over the course of their high school careers. Between 1982 and 1988 at Fremont the average number of courses at the algebra or above level rose from .6 to 2.0 (Chart 5a). At Castlemont they rose from 1.3 to 1.9 (Chart 5b). Between 1981 and 1988 at Fremont the average number of courses taken at the geometry or above level rose from .1 to 1.2 (Chart 6a), while the number at Castlemont rose from .4 to .8 (Chart 6b). There is strong evidence that these increases were due primarily to program-related effects rather than to heighten graduation requirements.

In addition to these gains there have been significant increases in the number and percentage of Black and Hispanic students at Castlemont and Fremont who are in a position to complete the math course requirement for eligibility if they took one math course each year for the remainder of their high school years. Between 1980 and 1988 these numbers rose steadily from 232 (7.9%) to 536 (23.8%) (Chart 7,8). The number of students that actually met the math course requirement rose from 6 (.8%) to 46 (8.4%) (Chart 9). Although the percentage of students presently meeting the math course requirements is small, it is nonetheless significant in that it exceed the percentage of Black and Hispanic students meeting the math requirement at what are considered Oakland's two top high schools--one of which has as few as 2% of their students on AFDC. Although this comparison has its limitations it does provide a perspective for the progress made by Castlemont and Fremont, especially where Castlemont has approximately 98% of its students on AFDC and Fremont has approximately 40% of its students on AFDC.

Data on the number of students meeting all A-F and scholarship requirements is not fully compiled. However, student reports indicate that between 1987 and 1988 the number of Black and Hispanic students from Castlemont, Fremont and Oakland Tech admitted to the University of California rose from 25 (4.5%) to 53 (7.0%).

When looked at as a whole this data shows a gradual building up of the population of Black and Hispanic students in college preparatory math courses at all levels.

B. Test Data

That these enrollment gains are truly maaningful is substantiated by parallel improvements in test scores of the UC/CSU Algebra Readiness Test, the UC/CSU Math Diagnostic Precalculus Test, the distdrict-wide core exams, and the math SAT.

Scores on the UC/CSU Algebra Readiness Test administered to 8th graders in Castlemont's and Fremont's six feeder schools between 1987 and 1989 show significant increases in the numbers of students likely to succeed in algebra. The number of students scoring above 70% (mastery) rose from 17 (9%) to 59 (8.6%). The number of students scoring above 50% rose from 70 (37%) to 280 (41%).

Student performance on the district-wide core exams developed by the program can be used to substantiate the contention that improved curriculum quality and heightened levels of enrollment have in fact been translated into improved preparation of more students for college level math course work. An analysis has been done for classes served by teaching assistants--geometry classes enrolling mostly 10th-grade students and advanced algebra and precalculus classes. From 1987 to 1988 (1989 data is as yet unavailable), the geometry core final exam mean score of students at Castlemont and Fremont (Oakland Tech results are being compiled) rose sharply (Chart 12). For the precalculus core exam, the number of students taking the exam increased, and even with this larger pool the mean rose as well. Using similar populations in the two years (that is, isolating the 1988 analysis to the GATE class at Fremont), the percentage correct rose even more substantially (from 47.5% in 1987 to 62.0% in 1988).

At the other end of the spectrum there were also substantial increases between 1985 and 1989 at Castlemont, Fremont, and Oakland Technical high schools in the scores on the UC/CSU Math Diagnostic Precalculus Test assessing student preparation for calculus. The mean percent for comparable groups rose from 47.1% to 62.9% while the number of students scoring above 70% (mastery) rose from 8 (20%) to 29 (41%) and the number scoring over the minimum threshold 50% increased from 18 (45%) to 48 (67%). Overall, this data, along with the enrollment data, indicates that not only are significantly more students being prepared for algebra, but that retention in

college preparatory courses has increased and that many more students are receiving a level of instruction that would prepare them for calculus (in college).

In parallel with these test results there has been some improvement in math SAT scores among the students having consistent contact with the program's teaching assistants. Between 1986 and 1989 at Castlemont, Fremont, and Oakland Technical high schools the mean rose from 444 to 504 and the median rose from 430 to 480. The number of students scoring above 500 rose from 15 (20%) to 32 (44%). The number of students scoring above 350 rose from 43 (81%) to 69 (96%). The number of Black and Hispanic students scoring above 500 rose from 8 (21%) to 10 (27%). The number scoring above 350 rose from 28 (74%) to 35 (95%).

C. Curriculum and Instructional Improvements

In parallel with these enrollment and test results core math curriculum and core semester exams have been developed for all the middle and junior high school math courses and for all college preparatory math courses through precalculus. The curriculum is fully articulated between grades seven and twelve and is aligned with the California State Department of Education Frameworks. The curriculum and exams developed by the program are used not only by the schools in the Castlemont and Fremont feeder systems but by all the middle, junior high, and high schools in the district. The curriculum has high standards compared to that of better-than-average college preparatory math classes across the state. Math textbooks have been upgraded and are of high quality compared to books used across the state. Overall significantly more students are taking and moving on to advanced college preparatory math courses that offer substantially stronger curriculum and are evaluated by higher standards than before the program was introduced.

D. Organizational and Management Changes

Despite these changes there has been relatively little change in the schools' organization and management practices. To a great degree this is attributed to an extremely high turnover of administrators in the schools and a great degree of instability in the district as a whole. Nevertheless, processes for developing and evaluating curriculum have been established, along with an infrastructure, for meetings, ongoing workgroups, and teacher and counselor support. Continuity has been maintained essentially through the consistent collaborative planning and problem solving efforts of teachers and counselors to develop curriculum, and improve instructional practices, student advising, and programming procedures.

E. Institutionalization

Institutionalization of the program is characterized as much by an ongoing financial commitment of the university and working relationship between university (program) and district staff as by the formal incorporation of the program into the district's infrastructure and the transferring to district staff the knowledge and methodology to implement it.

Specific evidence of the program's institutionalization includes 1) an ongoing matching financial commitment of the district ($250,000 in 1988-89); 2) the involvement of every middle, junior high, and high school in the district in the program's math staff and curriculum development activities; 3) the use of the core math curriculum and core semester and final exams developed by the program for each grade/course level in all the middle junior high and high schools (grade 7-12); 4) the district's creation of two coordinator positions that are filled by district math teachers; 5) the district's request that lead teachers be trained to implement the program at their sites; 6) the formal incorporation of program staff development activities into the district's staff development program and regular school day; and 7) the use of the processes introduced by the program to develop the district's curriculum standards. To a great degree university and district resources have been combined to develop an ongoing support system for the schools and the district that is implemented jointly by district and university personnel.

San Francisco Program

As the San Francisco program works entirely at the middle school level, most of the enrollment, eligibility, and test requirements criteria used in the Oakland evaluation and designed specifically to assess high school improvements are inapplicable. Reported below are those results that do apply specifically to the middle schools. For more detailed information on the following results, see Appendix 3.

Overview of San Francisco Results

The program has brought about substantial changes in the five middle schools. Processes have been established for collaborative problem solving and planning and for planning, developing, and evaluating core math and English curriculum for grades 6-8. Drafts of grade-level core math curriculum have been developed by teachers at each site and drafts of grade-level literature-based English curriculum are in process. As a result of yearly revisions, the curriculum has become more articulated and closely aligned with state Department of Education Frameworks and district Curriculum Guides. Grade-level semester math exams and writing samples,

created and/or scored through collaborative efforts of teachers, have been established in the original five middle schools and are beginning to be used in the three new schools. Both the exams and writing samples are used as diagnostic tools to assess students' needs and to determine areas of the curriculum that require revision.

Scores on the UC-CSU Algebra Readiness Test show significant improvements in students' preparation for algebra. Between 1987 and 1989 both the mean and median scores for all eighth graders aggregated across the original five middle schools rose steadily and substantially (Chart 14). For Black and Hispanic students in particular, the mean rose from 16.6 to 19.9 (Chart 15). The increases in mean and median scores reflect a generalized redistribution of scores to higher levels, especially into those ranges (30 and above, 35 and above) that are predictive of future success in algebra (Chart 16). The distributional shifts were equally evident for Black and Hispanic students (Chart 17). The number scoring 35 or above rose from 14 (4.3%) to 28 (8.5%). Those scoring 30 or above rose from 25 (7.6%) to 53 (16.1%). Those scoring 25 or above rose from 54 (16.5%) to 92 (28.0%). Performance improvements of 7th grade students on the test were also substantial, suggesting that improvements for the fourth year will continue (see attached report in Appendix 3).

As a result of their involvement in the program, teachers feel empowered and have a growing sense of professionalism and community. Furthermore, there is evidence of increased expectations for student learning, improvements in the quality of instruction, and growth in student achievement.

Institutionalization is following a similar path as in Oakland. It is characterized by 1) a commitment of district management to the philosophy and methodology of the model; 2) the district's financial commitment to the program; 3) the gradual incorporation of the program into the district's infrastructure, and the training of district teachers to implement it; 4) teachers and administrators reliance on the program; and 5) the high degree to which the program is taken into account in school site planning.

Specific evidence of institutionalization includes 1) the District's gradual increasing of their funding commitment to the program, ranging from $250,000 in 1986 to $430,000 in 1987, to $600,000 in 1988 and 1989; 2) the gradual expansion of the program to additional middle and high schools; 3) the use of core curriculum and exams in the eight participating middle schools; 4) the District's creation of two coordinator positions; 5) beginning in 1989-90 the training of lead teachers in the program's methodology to enable them to implement the program at their schools; 6) the training of teachers to plan and lead the

curriculum and instruction workgroups; 7) the ongoing use of the processes and meeting structures introduced by the program; and 8) a gradual transition of authority to teachers through greater degrees of collaborative planning and shared decision making.

DISCUSSION OF THE REASONS FOR THE RESULTS REPORTED ABOVE

The ACCESS/CCPP program is a long-range effort. The outcomes we strive to affect are functions of a number of different interrelated factors, each of which takes time to develop and between which connections must be made if the outcomes are to be positive. For example, the outcome of a new student advancing to college is a function of the identification and placement of the student in an appropriate course by the ninth grade or even earlier; of the student receiving high-quality instruction and the attention that motivates him to advance and succeed in each class in order to enter, at each grade level, into the next higher class. Each of the processes ensuring that these steps will occur takes much effort and time to renew or even create. In addition, coordination must be nurtured; both teachers and counselors must agree that a student is capable, and cooperate to ensure that the student succeeds. Administrators must also participate in the improvement process, by making certain that rules and procedures support the efforts of student, teacher and counselor to forge new advances.

For these reasons, evaluation of the ACCESS/CCPP program must focus on development of long-range trends. A "plateauing" or even a drop in enrollments or scores over a two- or three- year period may be more a function of cohort differences or short-term environmental influences than of success or failure of the program. Long-term trends, however, can be viewed as a true reflection of the program's success in working with the school as a whole. The results reported above show clearly that ACCESS/CCPP has succeeded in developing a process of renewal in these schools, and is now at the point of institutionalizing that process in order to maintain the schools' capacities to improve.

DISCUSSION OF OUTCOMES NOT INCLUDED IN THE STUDY PROSPECTUS

The major serendipitous result we found is related to an outcome for which our expectations were not fully defined: math course enrollments. Because ACCESS/CCPP focuses most intensely in the high schools on the higher-level college-preparatory classes (geometry and above), we expected to find the most dramatic enrollment changes in those classes. Indeed, enrollment levels did rise substantially in those classes, over a long period in which earlier declines had to be reversed and a new foundation for

increases put into place. That the new, higher numbers are not enormous and still represent relatively small percentages of the population, testifies to the enormity of the task and the steadiness of the build-up that must be supported. What is surprising is the shift of very large numbers of students in the "middle," from essentially remedial classes into algebra and geometry at the 10th-, 11th- and 12th- grade levels. These large changes, in classes connected to ACCESS/CCPP but without some of the more intensive services, suggest that the approach of working on the school as a whole indeed has beneficial effects for the entire student body rather than just selected groups.

SCHOOL AND PROGRAM POPULATION INFORMATION

School Population Information

Schools Served

Oakland

Schools Receiving Site Support by Coordinators:

High Schools:	Castlemont, Fremont, Oakland Technical
Junior High Schools:	Frick, Bret Harte, Havenscourt, King Estates, Roosevelt, Simmons, and Westlake
Middle Schools:	Carter, Claremont, Elmhurst, Foster, Lowell, and Madison

Schools Not Receiving Site Support by Coordinators But Whose Teachers Receive Staff Development:

High Schools:	McClymonds, Oakland, Skyline
Junior High Schools:	Brewer, Montera

San Francisco

Schools Receiving Site Support by Coordinators:

High Schools:	Woodrow Wilson
Middle Schools:	Luther Burbank, Everett, Benjamin Franklin, Dr. Martin Luther King, Jr., James Lick, Horace Mann, Potrero Hill, Visitacion Valley

Specific school population information will be provided next year.

Program Student Population

This section provides general information on the program's student population. Specific information will be provided in the second report.

Number of Students Served in 1988-89

In the Oakland schools receiving site support by coordinators, the program served an estimated 4,650 middle and junior high school students and 1950 high school students. Approximately 60% of the middle and junior high school students in these schools and 40% of the high school students in these schools were served by the program.

In San Francisco, the program served an estimated 4,900 middle school students, virtually all the students in the participating schools.

Criteria for Participation

In general, participants are students enrolled in any college preparatory math and/or English class in a school served by the program.

At the middle and junior high school (grades 6-9) level this includes all students who are enrolled in general math, pre-algebra, or algebra, and/or the basic English (reading and language arts) courses.

At the high school level (grade 9-12) this includes all students who are enrolled in pre-algebra, algebra, geometry, intermediate algebra, advanced algebra/trigonometry, precalculus, and/or college preparatory English classes.

Students Served

In general, students served are those attending schools

a) whose principals and assistant principals receive ongoing weekly staff development and implementation support at their school sites in planning, coordinating, monitoring, and evaluating academic programs, in master schedule planning, and in managing efforts to restructure curriculum and teaching practices and the learning and teaching environment;

b) whose counselors receive ongoing weekly staff development and implementation support at their school sites in identifying, motivating, and programming students for advanced courses, in monitoring student progress, and in academic and college advising:

c) whose math and English teachers receive ongoing weekly staff development and implementation support at their school sites in planning and developing curriculum, in developing and using instructional practices, classroom management, and organizational strategies to engage and motivate students, and in using diagnostic and assessment methods;

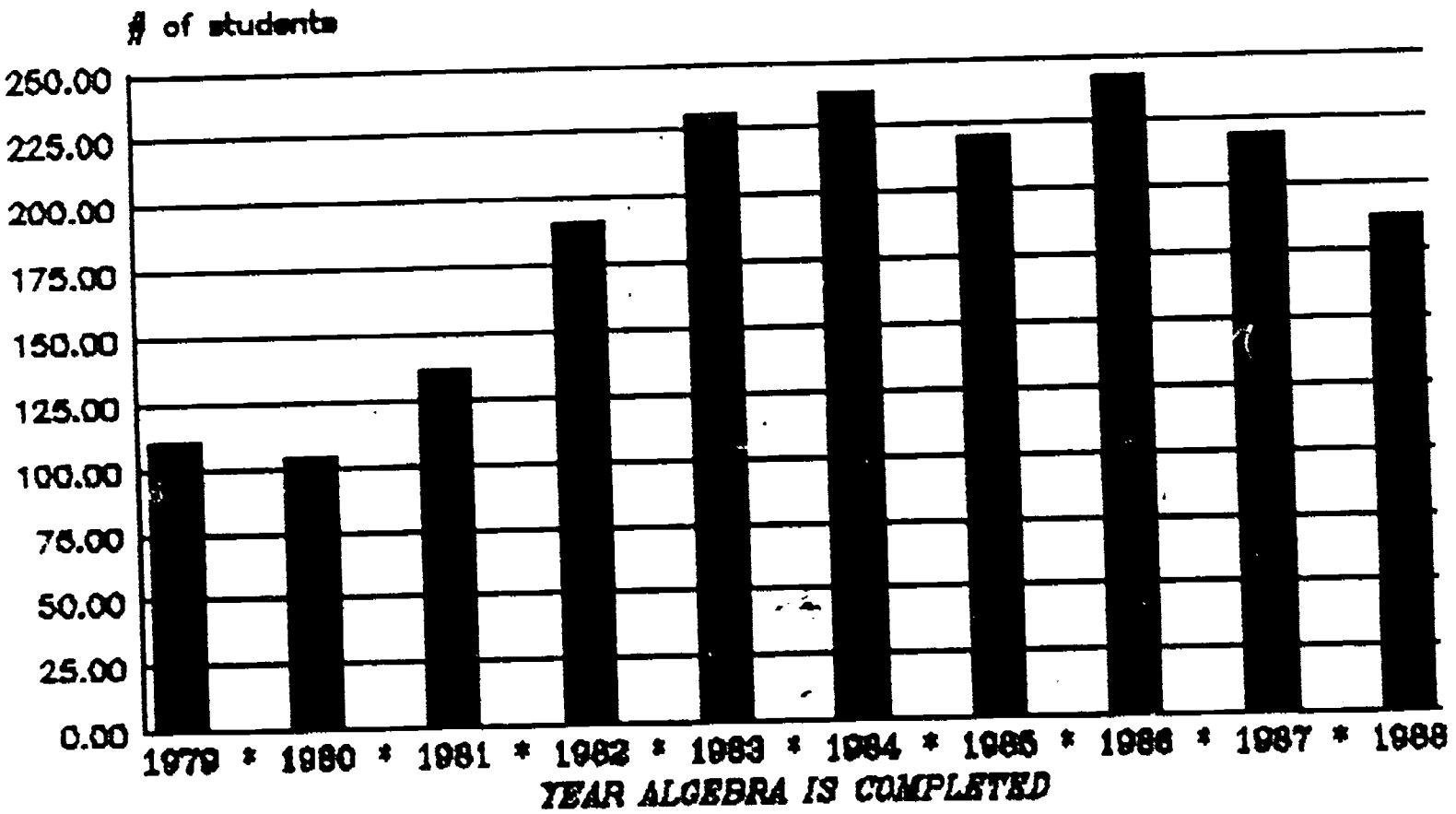
d) whose math and English classes use the core curriculum, core examinations, or writing samples developed through the program.

Students receiving intensive services are those whose math and English classes are co-taught a minimum of two days per week by assistant teachers who provide individual and small group instruction and academic and college advising in the classroom, and who provide additional academic and college advising and tutoring in special classes held before, during, and after school.

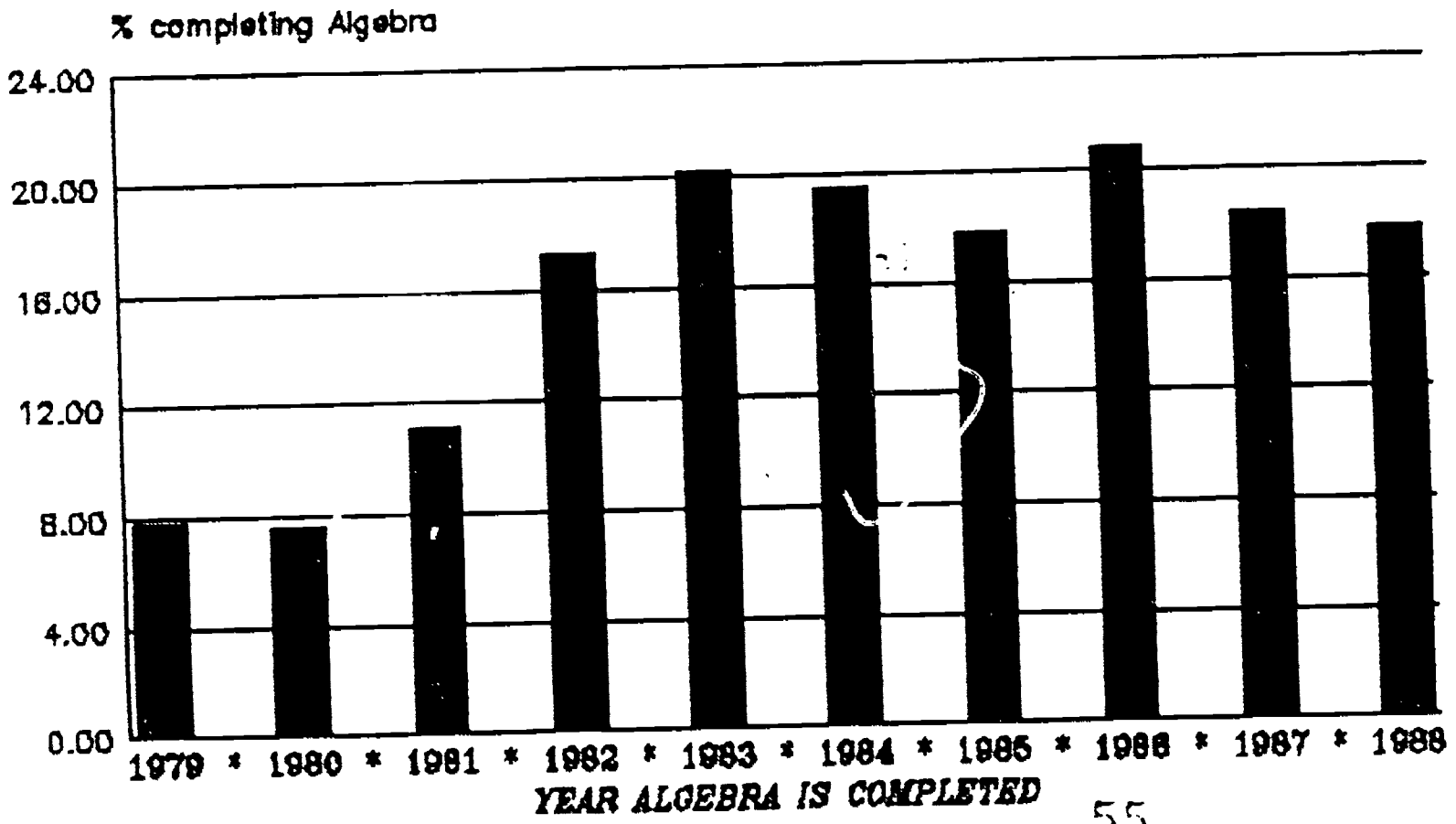
Grade Level

The program serves students from grades 6 through 12.

Number of Black and Hispanic Ninth-Grade Students Completing Algebra at One of Six ACCESS Feeder Schools or Castlemont High



Percentage of Black and Hispanic Ninth-Grade Students Completing Algebra at One of Six ACCESS Feeder Schools or Castlemont High



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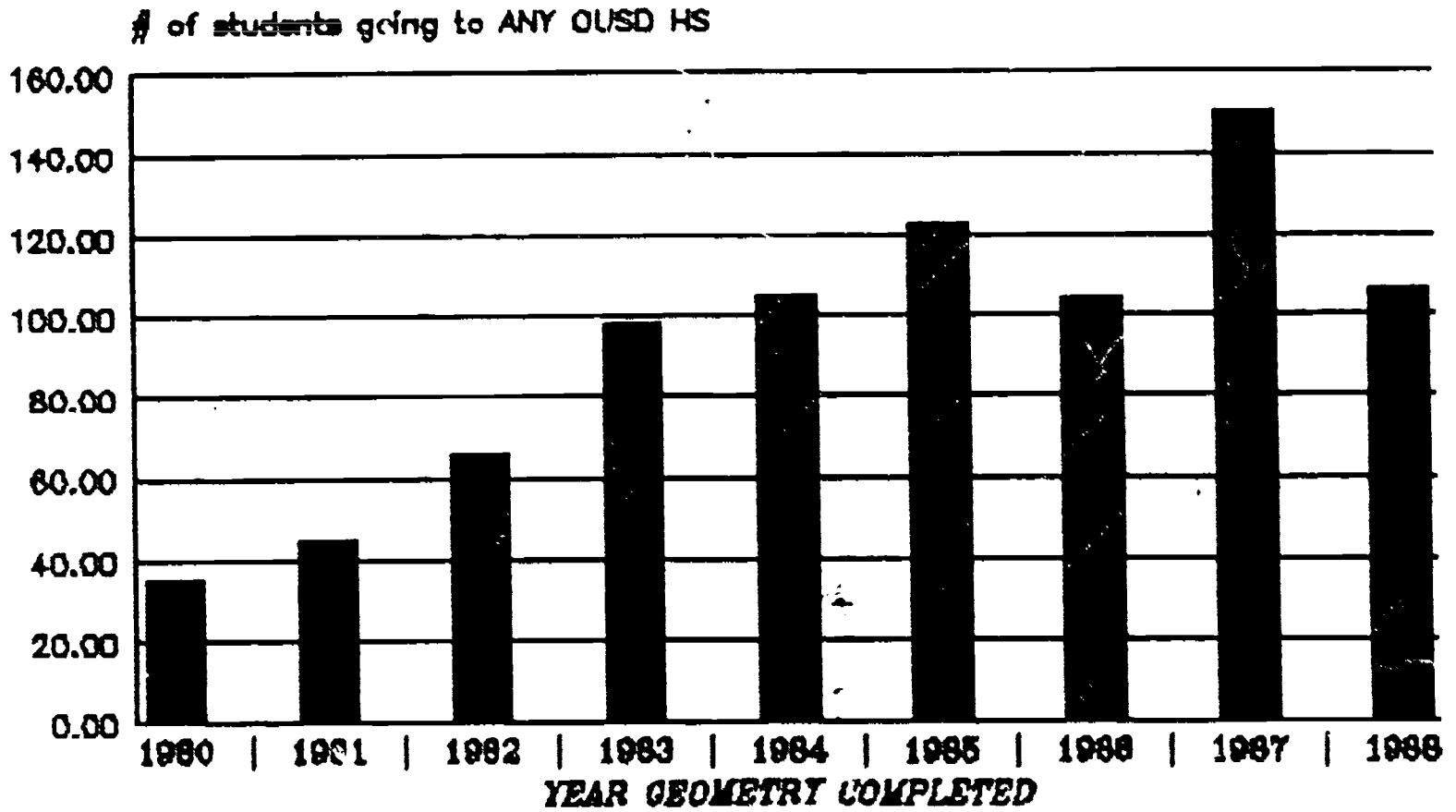
Number of Black and Hispanic Tenth-Grade Students at OUSD High Schools Having Completed Grade 9 at One of Six ACCESS Feeders or Castlemont High Who Went On to Complete Geometry in Grade 10



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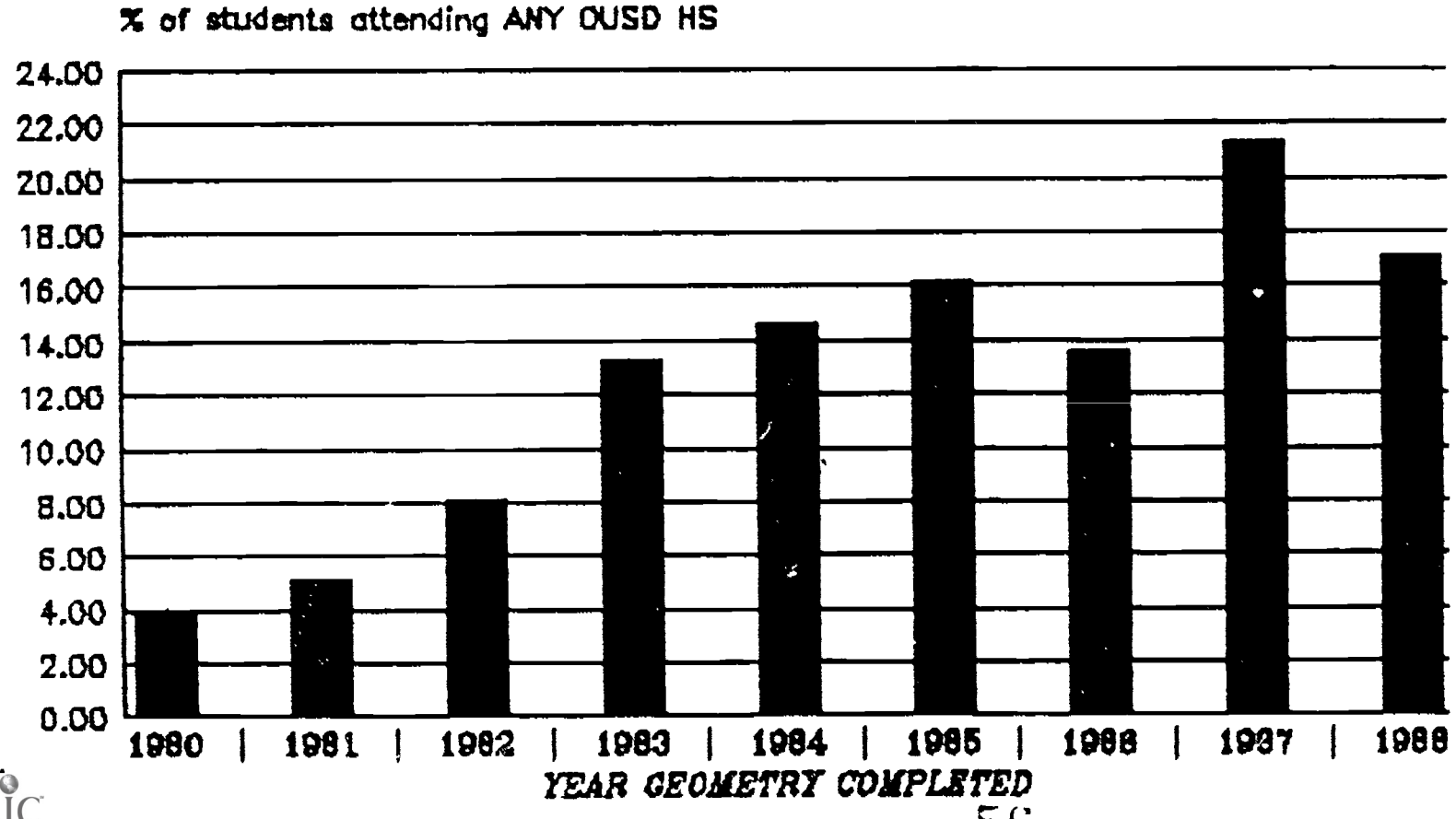
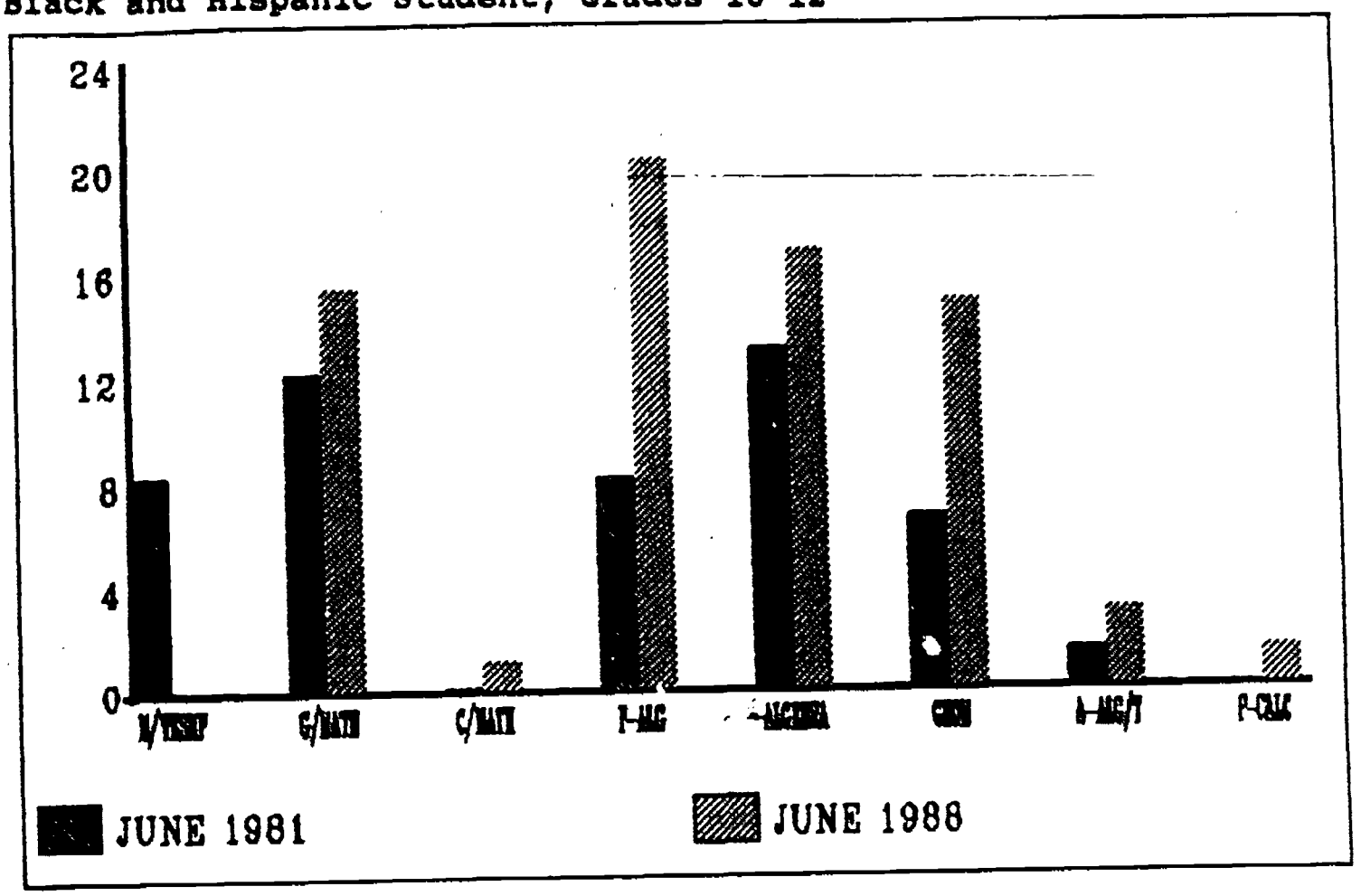


ACCESS/CCPP CHART 3

Percentage Distribution of Course Enrollments at Castlemont High Black and Hispanic Student, Grades 10-12



ACCESS/CCPP CHART 4

Percentage Distribution of Course Enrollments at Fremont High Black and Hispanic Student, Grades 10-12

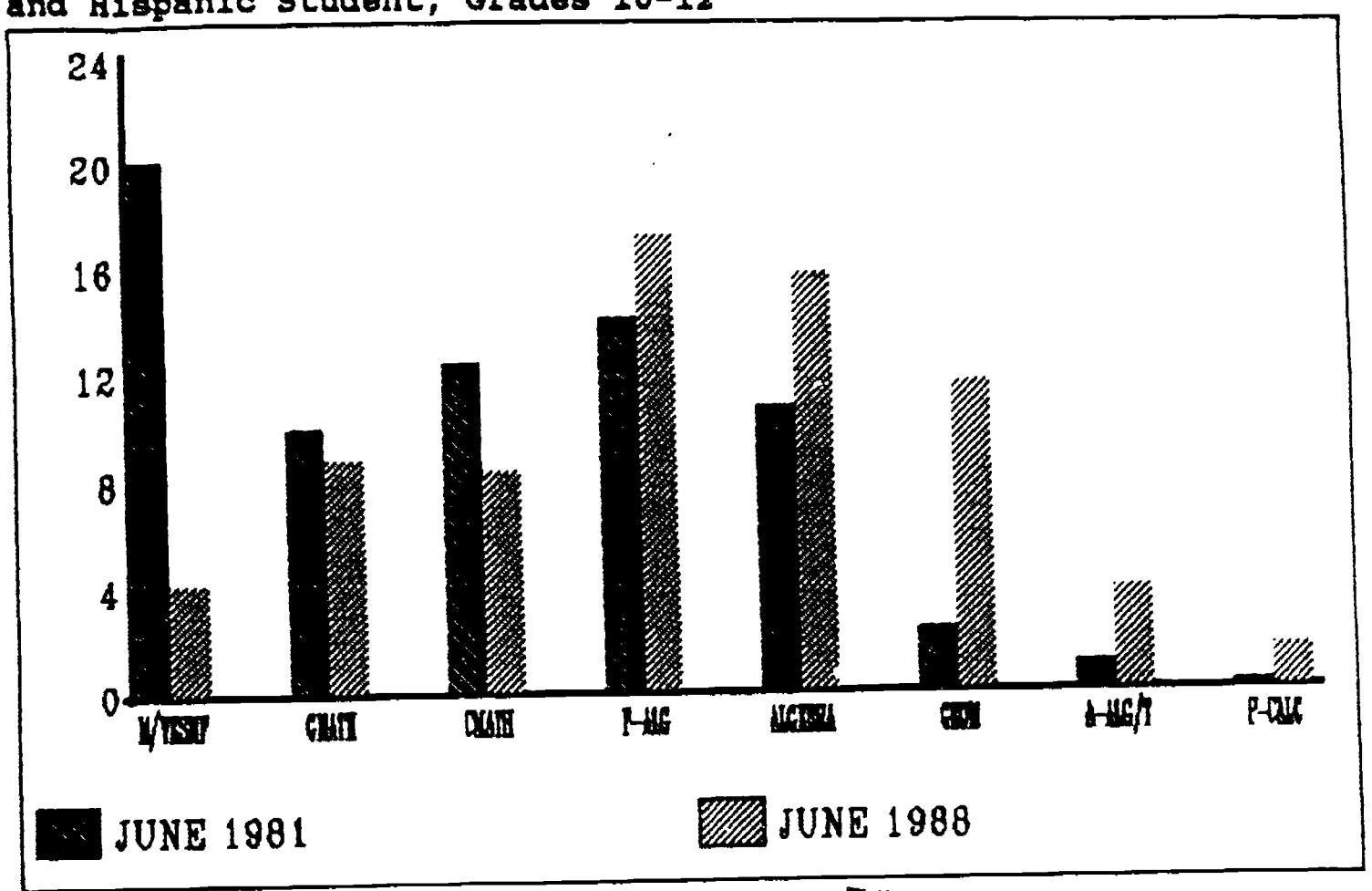


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CHART 5a

Average Number of Math Courses Algebra and Above Taken Over High School Career by Black and Hispanic Students Completing Grades 9-12 at Fremont High and Feeders

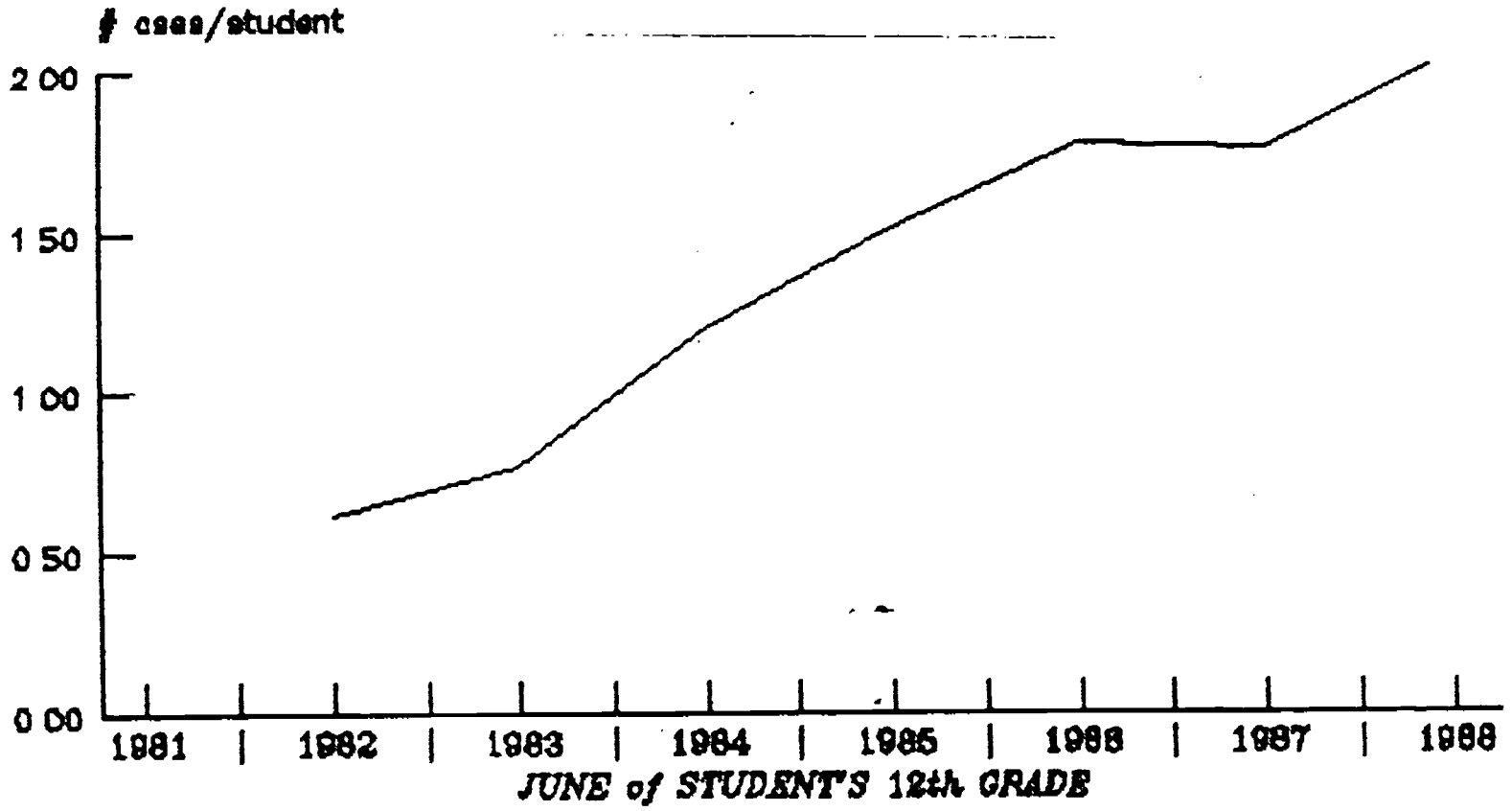


CHART 5b

Average Number of Math Courses Algebra and Above Taken Over High School Career by Black and Hispanic Students Completing Grades 9-12 at Castlemont High and Feeders

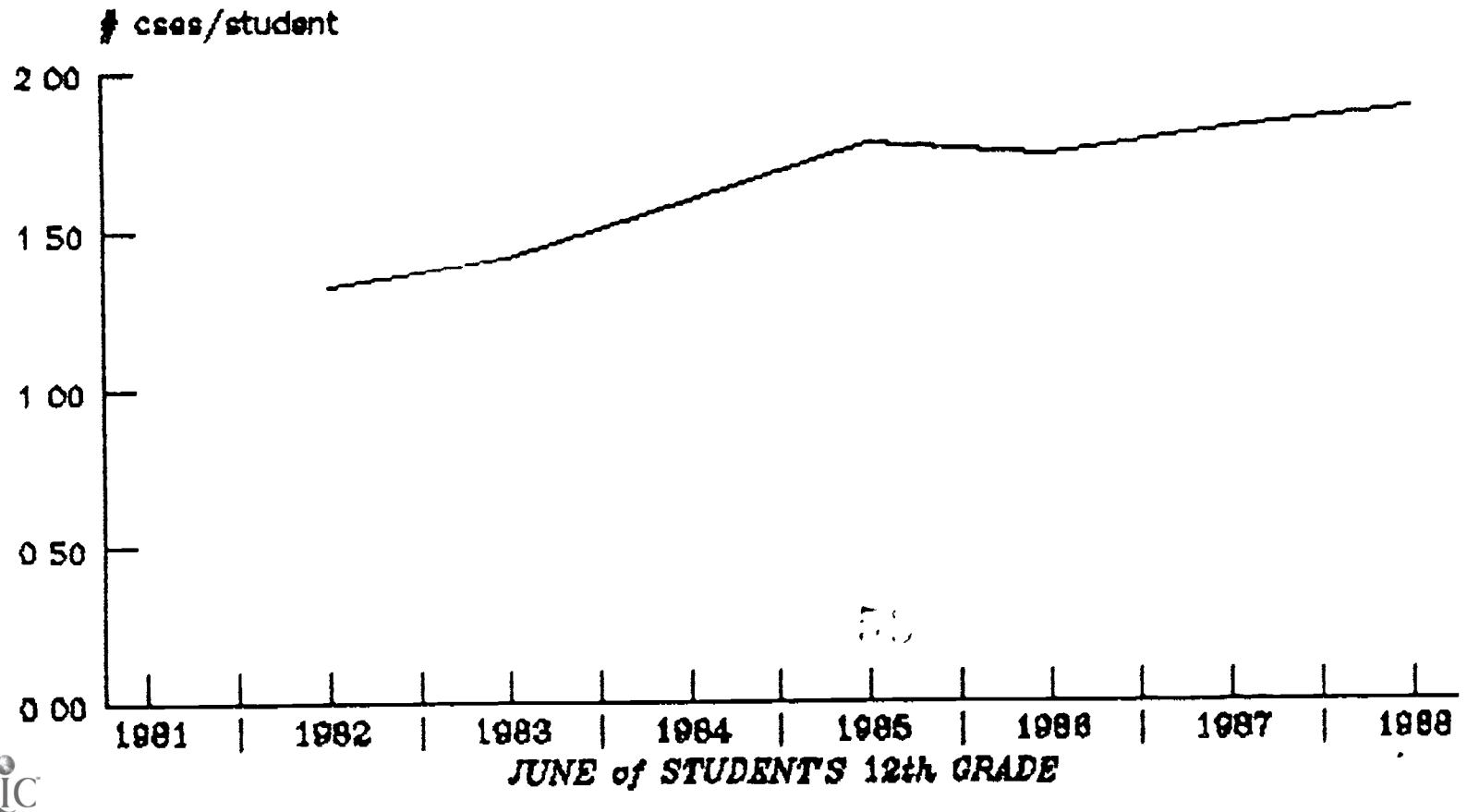


CHART 6a

Average Number of Math Courses Geometry and Above Taken Over High School Career by Black and Hispanic Students Completing Grades 10-12 at Fremont High

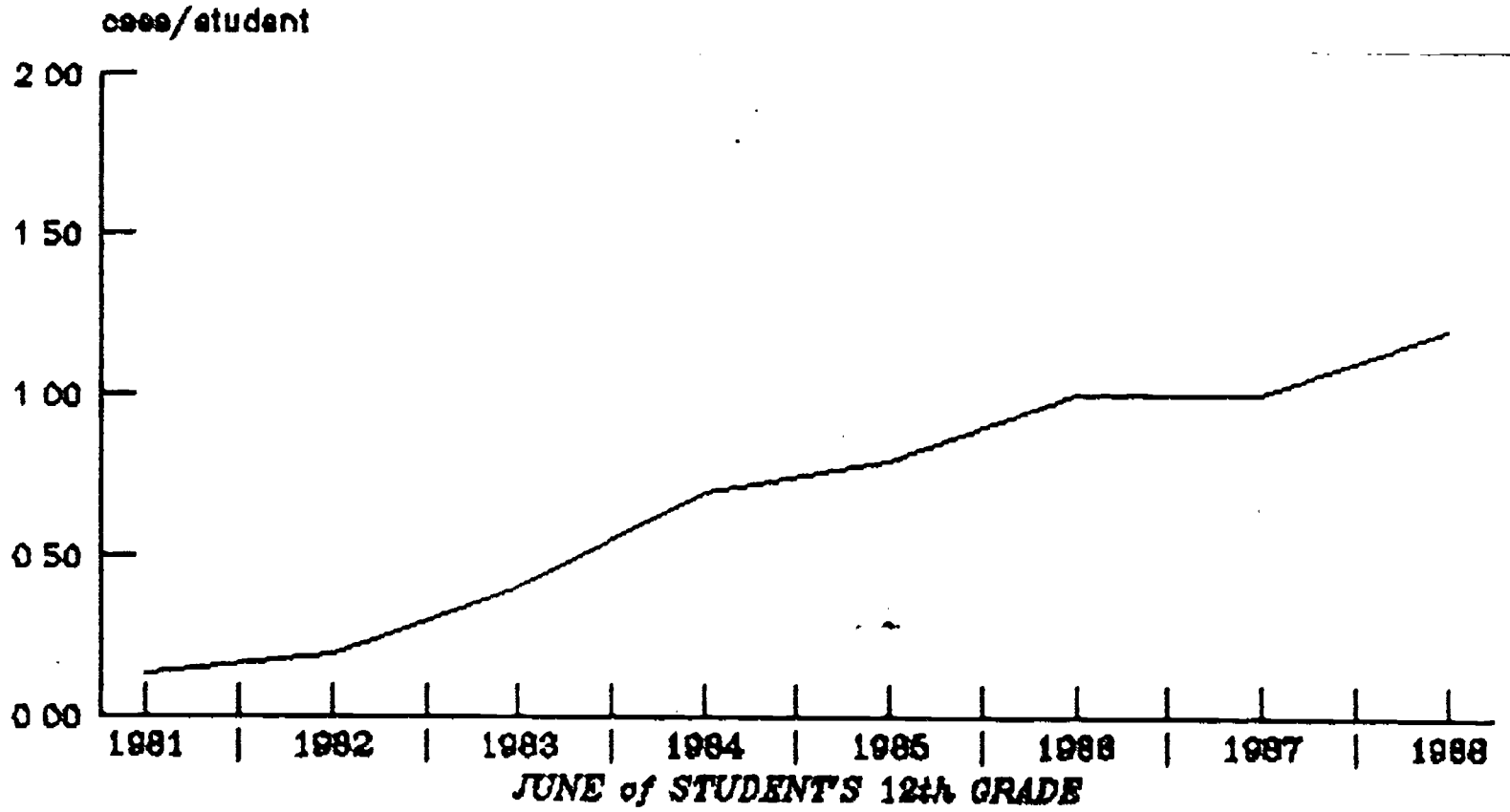
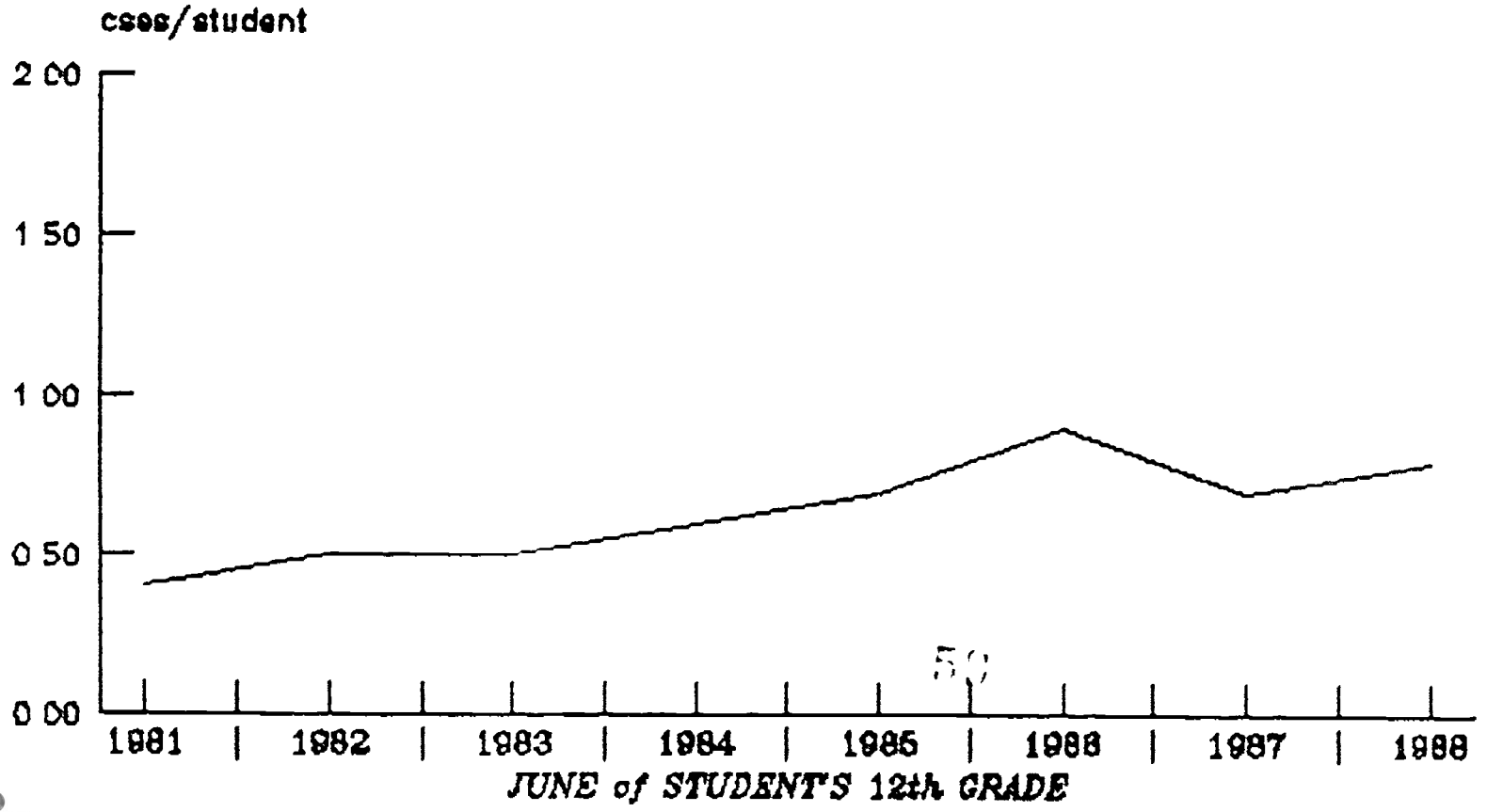
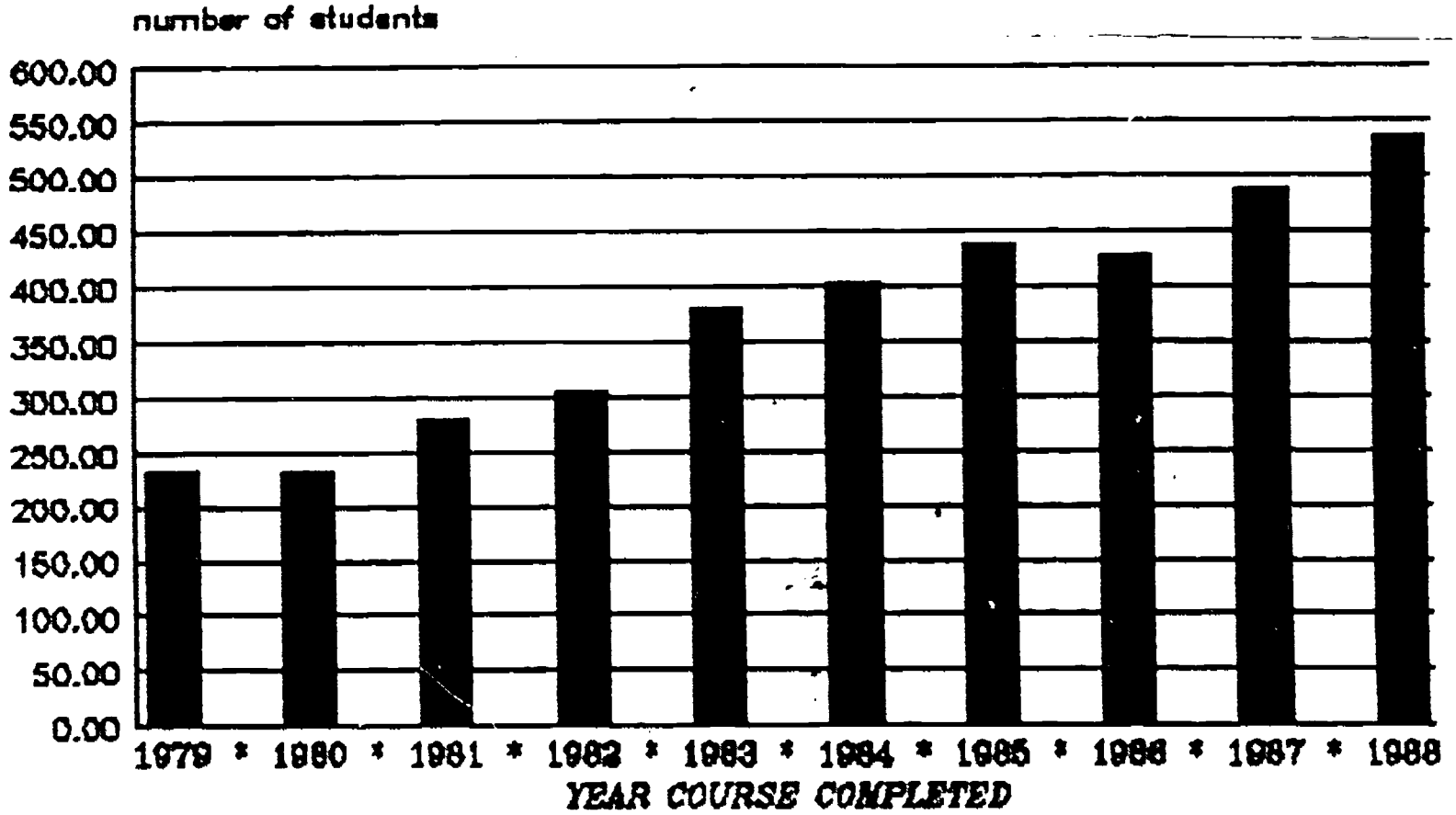


CHART 6b

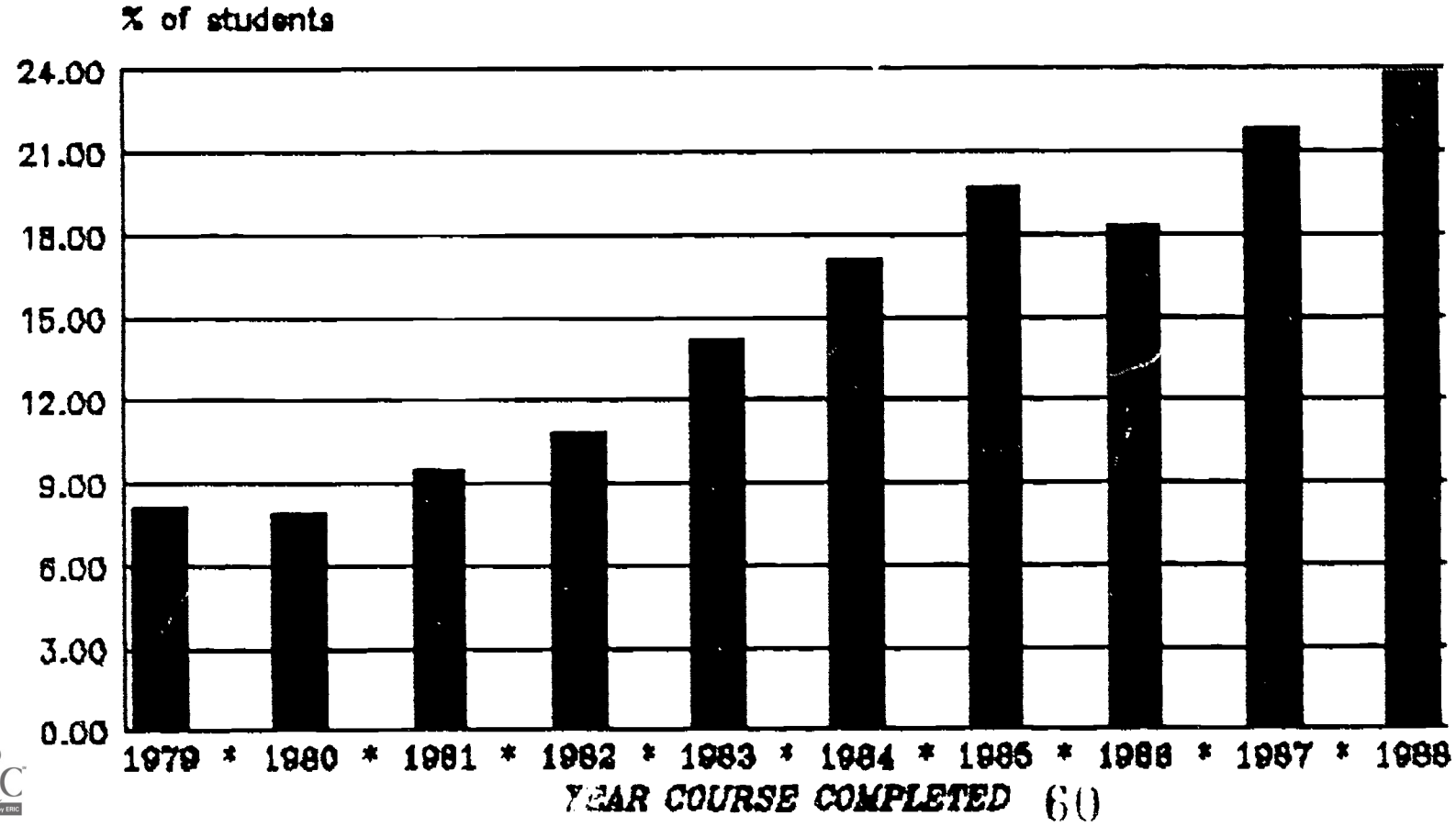
Average Number of Math Courses Geometry and Above Taken Over High School Career by Black and Hispanic Students Completing Grades 10-12 at Castlemont High



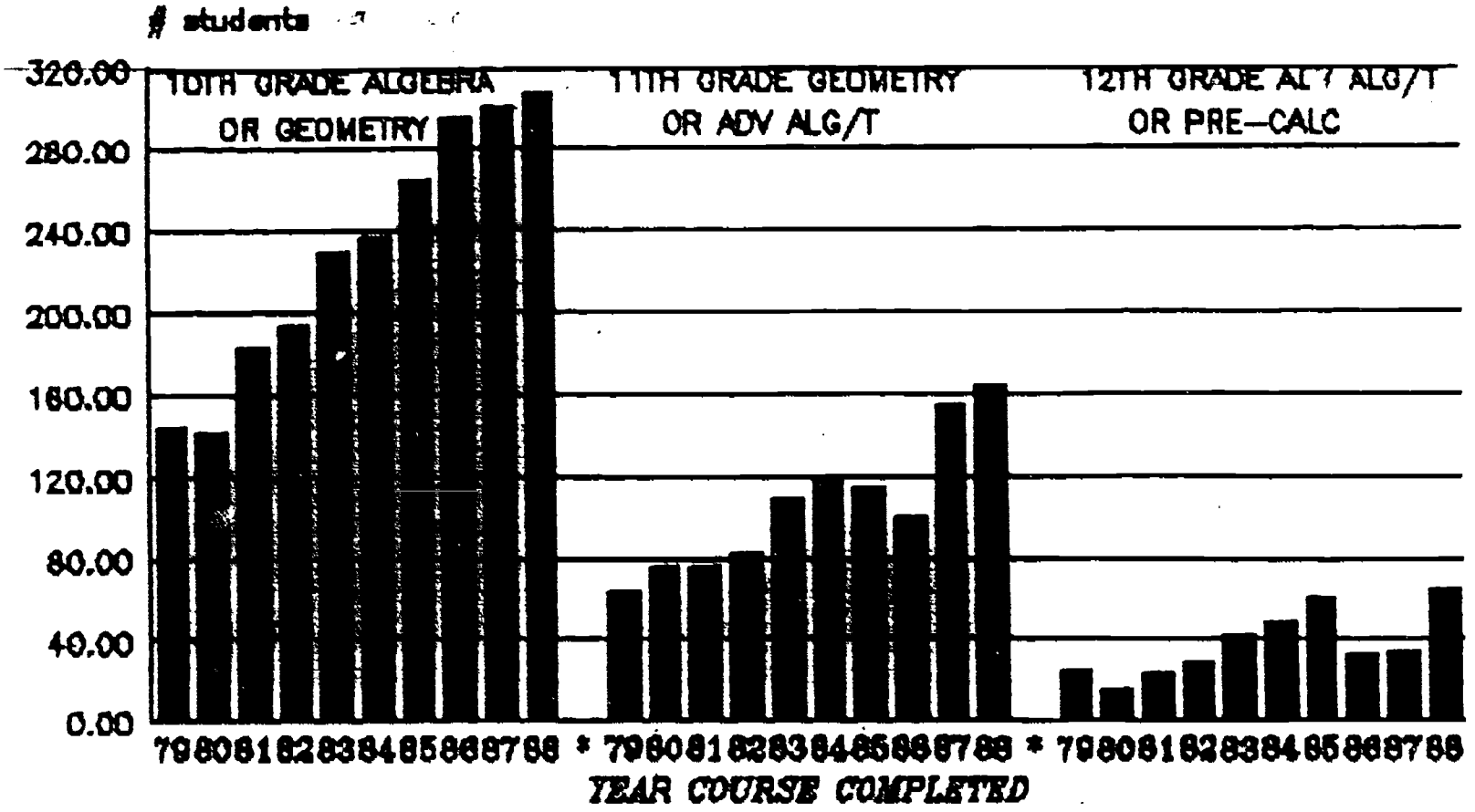
Number of Black and Hispanic Students (Grades 10-12) at Castlemont and Fremont Positioned to Have Taken AAT or Precalculus upon Graduation



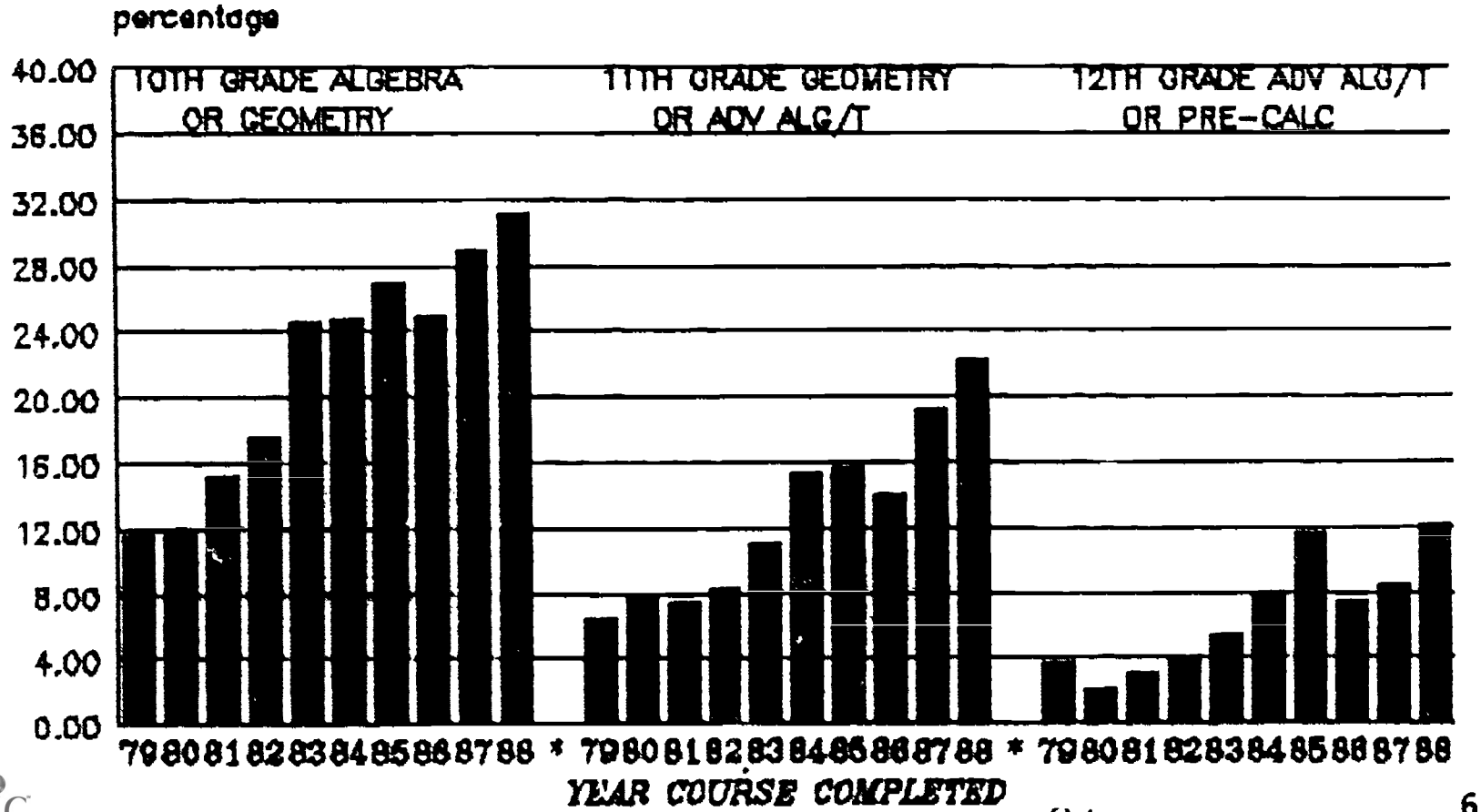
Percentage of Black and Hispanic Students (Grades 10-12) at Castlemont and Fremont Positioned to Have Taken AAT or Precalculus upon Graduation



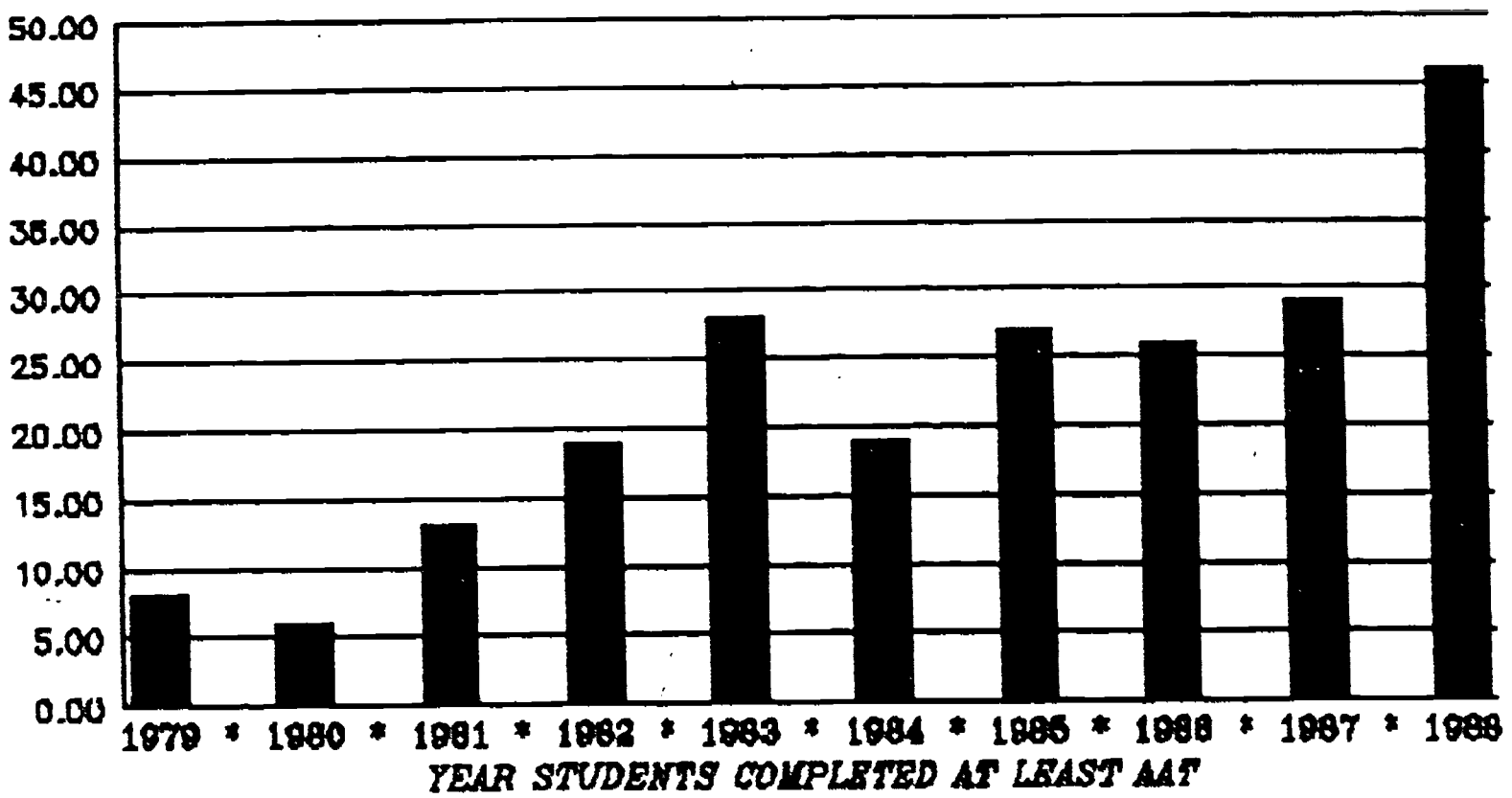
Number of Black and Hispanic Students (Grades 10-12) at Castlemont and Fremont Positioned to Have Taken Adv Alg/Trig or Precalculus Upon Graduation, by Grade Level



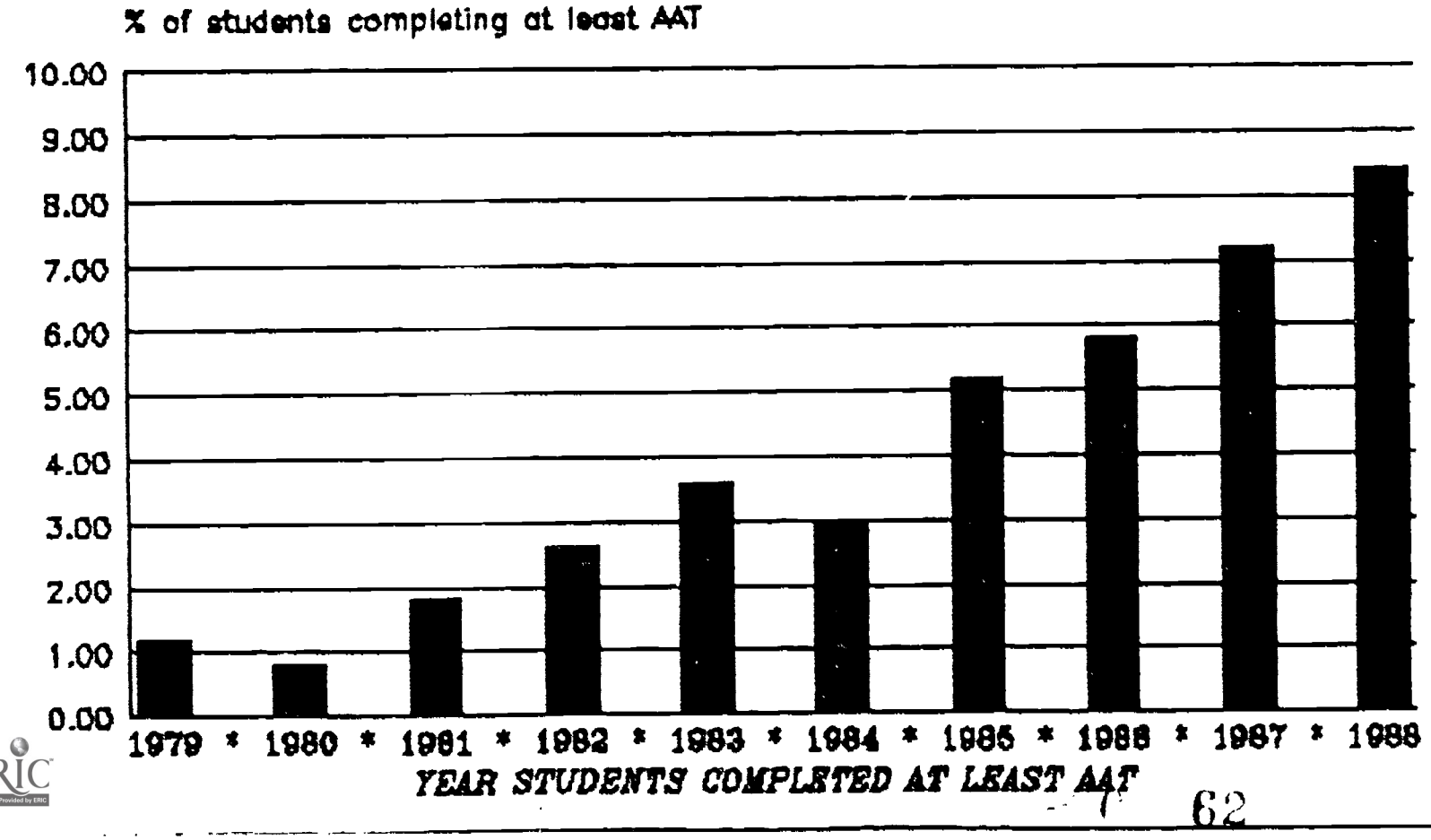
Percentage of Black and Hispanic Students (Grades 10-12) at Castlemont and Fremont Positioned to Have Taken Adv Alg/Trig or Precalculus Upon Graduation, by Grade Level



Number of Black and Hispanic Students Graduating from Castlemont and Fremont Having Met Math Course and Scholarship Requirements for Entrance to UC/CSU



Percentage of Black and Hispanic Students Graduating from Castlemont and Fremont Having Met Math Course and Scholarship Requirements for Entrance to UC/CSU



ACCESS/CCPP

Chart 10:
Means and Distribution of Scores For All Students
Taking Algebra Readiness Test At Six OUSD Middle Schools
1987 to 1989

			Number of Students With Score Over:	
	Number taking exam	Mean Score	35	25
1987*	189	23.1	17 (9.0%)	70 (37%)
1988	508	22.7	39 (7.7%)	189 (37%)
1989	684	21.4	59 (8.6%)	~280 (41%)

* In 1987, the exam was not administered at Elmhurst Middle or Frick Junior high schools.

ACCESS/CCPP

Chart 11:
UC/CSU Math Diagnostic Test Results For Precalculus Students
At Castlemont, Fremont, and Oakland Technical High Schools

	Number taking exam	Mean percent correct	Over 70% (Mastery)		Over 50%	
			Number	%	N	%
1985	40	47.1	8	20.0	18	45.0
1986	47	51.4	10	21.3	24	51.1
1987	48	58.6	17	35.4	28	58.3
1988	71	62.9	29	40.9	48	67.6

ACCESS/CCPP

Chart 12:
Results for Core Final Exams
At Castlemont and Fremont High Schools
For Students in Classes Served by Teaching Assistants

	Geometry		Advanced Algebra/Trig		Precalculus	
	N	Mean % Correct	N	Mean % Correct	N	Mean % Correct
1987	130*	43.7	80	47.0	25	47.5
1988	119*	58.4	72	45.6	42	50.8 (All)
					26	62.0 (Gate Only)

*Predominantly tenth grade students.

ACCESS/CCPP

Chart 13

A: Math SAT Scores for Students Served by Teaching Assistants
At Castlemont, Fremont, and Oakland Technical High Schools

	All Students		Black & Hispanic	
	1986	1989	1986	1989
Number	53	72	38	37
Mean	444	504	417	452
Median	430	480	415	460
Scoring Above 500	15 (28%)	32 (44%)	8 (21%)	10 (27%)
Scoring Above 350	43 (81%)	69 (96%)	28 (74%)	35 (95%)

B. English SAT Scores For Students Served by Teaching Assistants
At Castlemont, Fremont, and Oakland Technical High Schools

	All Students		Black & Hispanic	
	1986	1989	1986	1989
Number	103	223	67	162
Mean	324	322	344	324
Median	320	300	340	300
Scoring Above 500	1 (1%)	11 (5%)	0	4 (2%)
Scoring Above 350	40 (39%)	80 (36%)	31	63 (39%)

CHART 14

ACCESS/CCPP

Means, medians and distributions of scores for ALL students taking Algebra Readiness Test at five consent-decree middle schools,* 1987 to 1989

	GRADE 8										GRADE 7	
	Number of students with score in range:								Mean Score	Median Score	Number of students with score 35 or up	Mean Score
	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35↑				
1987 n=558	11	79	127	109	77	49	42	64	19.7	17.5	15 (2.5%) n=606	13.7
1988 n=538	10	37	111	113	100	41	42	84	21.6	19	64 (9.9%) n=645	18.0
1989 n=591	4	41	113	106	103	61	57	106	23.0	20	55 (9.5%) n=577	17.9

* Schools are: Martin Luther King, Jr./ James Lick / Horace Mann / Potrero Hill / Visitacion Valley

CHART 15

ACCESS/CCPP

Means, medians and distributions of scores for Black and Spanish-speaking students taking Algebra Readiness Test at five consent-decree middle schools,* 1987 to 1989

	GRADE 8									
	Number of students with score in range:								Mean Score	Median Score
	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+		
1987 n=327	7	57	90	81	38	29	11	14	16.6	15
1988 n=290	5	26	66	80	50	22	19	22	18.9	17
1989 n=329	2	26	85	70	54	39	25	28	19.9	17

*Schools are: Martin Luther King, Jr. / Horace Mann / James Lick / Potrero Hill / Visitacion Valley

CHART 16

ACCESS/CCPP

Cumulative number and percentage distributions of scores for ALL students taking ART at five consent-decree schools,* 19[illegible] to 1989

GRADE *8*	Number (percent) of students with score in range:				
	<20	20↑	25↑	30↑	35↑
1987 n=558	326 (58.4%)	232 (41.6%)	155 (27.8%)	106 (19.0%)	64 (11.5%)
1988 n=538	271 (50.4%)	267 (49.6%)	167 (31.0%)	126 (23.4%)	84 (15.6%)
1989 n=591	264 (44.7%)	327 (55.3%)	224 (37.9%)	163 (27.6%)	106 (17.9%)

* Schools are: Martin Luther King, Jr. / James Lick / Horace Mann / Potrero Hill / Visitacion Valley Middle Schools

CHART 17

ACCESS / CCPP

Cumulative number and percentage distributions of scores for Black + Spanish-speaking students taking ART at five consent-decree schools,*
1987 to 1989

GRADE *8*	Number (percent) of students with score in range:				
	<20	20↑	25↑	30↑	35↑
1987 n=327	235 (71.9%)	92 (28.1%)	54 (16.5%)	25 (7.6%)	14 (4.3%)
1988 n=290	177 (61.0%)	113 (39.0%)	63 (21.7%)	41 (14.1%)	22 (7.6%)
1989 n=329	183 (55.6%)	146 (44.4%)	92 (28.0%)	53 (16.1%)	28 (8.5%)

* Schools are: Martin Luther King, Jr. / James Lick / Horace Mann / Potrero Hill / Visitacion Valley Middle Schools

Information for CPEC report on "Evaluation of Intersegmental Programs Designed to Prepare Students for College"

ACCESS/CCPP
Alliance for Collaborative Change in Education in School Systems/
The Cooperative College Preparatory Program

ACCESS/CCPP's long-range goal is to strengthen the institutional capacity of Oakland and San Francisco secondary schools to prepare underrepresented ethnic minority students for four year colleges.

The program provides an organizational infrastructure and processes for assisting schools to implement and sustain extensive curriculum and instructional reforms. In this context, it provides a broad range of assistance, inservice education, and curriculum development support for teachers, counselors, and administrators at school sites. Concurrently, it provides direct counseling and instruction for students in their classrooms. These services are extensively coordinated so that all efforts by the various school staff build on and reinforce each other.

Progress in the long run would be indicated by rising trends in students' college eligibility and admission rates.

Progress in the shorter term would be indicated by:

1. Rising trends in enrollment, retention, and achievement in middle, junior high, and high school A-F courses and in math and English college preparatory courses in particular;

2. Improvement in the quality of the above courses---in the quality of grade 7-12 curriculum, instruction, and standards;

3. Improvement in student placement and programming procedures;

4. Improvement in school organization, policies, and capacity to plan, coordinate, monitor, and evaluate school-based curriculum and instructional improvement efforts;

5. Improvement in student motivation and study skills.

The achievement of these shorter-term objectives is seen to be a vital part of the program's mission. The ultimate success of the project is measured in terms of the balance of success in meeting these objectives with the realization of the long-term student eligibility and college acceptance outcomes.

Institutionalization objectives would be measured by the degree to which the schools and districts incorporate program approaches, methodology, processes, organizational structure, and staff roles.

Contact Louis Schell, Director, ACCESS/CCPP, phone: (415) 642-6280.

Evaluation Framework
for
Intersegmental Programs Designed to Prepare Students for College

Institutional or Special Program	Objectives	Measures of Effectiveness	Information Requirements
ACCESS/CCPP	1. Increased number and percent of students prepared for four-year colleges	A. COLLEGE ACCEPTANCE TRENDS: number and percent of students accepted to college	-Student self-reports -College reports
		B. ELIGIBILITY TRENDS: number and percent of graduating seniors meeting course and scholarship requirements for UC/CSU admission	-School grade reports/ transcripts
		1. Number and percent completing all math/ English courses required for admission	
		2. Number and percent completing all a-f courses required for admission	
		3. Number and percent validating all math/ English courses required for admission	
		4. Number and percent validating all a-f courses required for admission	

5. Number and percent meeting scholarship requirement (a-f GPA)

C. COURSE ENROLLMENT TRENDS (SECONDARY SCHOOL): number and percent of students in grades 7-12 completing college preparatory courses — -School enrollment records

1. Changes in schools' course enrollment distributions from remedial to college preparatory courses

2. Number and percent of students in grades 7-12 completing college preparatory courses at appropriate time in high school (e.g., Algebra in 9th or 10th grade, Geometry in 10th or 11th grade, etc.)

D. PERFORMANCE TRENDS: number and percent of students in grades 7-12 performing well in college preparatory classes

1. Changes in course grade distributions — -School grade reports/ transcripts

	2. Changes in number and percent of students completing college-preparatory courses with grade: - A through F - A through D - C or above - A or B	-School grade reports/ transcripts
	3. Scores on standardized exams: means, medians, distributions, and thresholds for... - UC/CSU math diagnostic tests and algebra readiness test - semester and course final exams - writing samples - CAP's (grades 6/8/12) - SAT's	-Testing service reports -Teacher test records
2. Improved curriculum	A. DEVELOPMENT OF LITERATURE-BASED CORE WRITING CURRICULUM AND CORE MATH CURRICULUM	-Documentation of curriculum
	B. QUALITY OF MATH AND ENGLISH CURRICULA: alignment with state and university frameworks and standards (breadth-scope-articulation)	-Established examples of high-quality curriculum, <u>including</u> frameworks, model curriculum standards, university standards -Core curricula developed by teachers o Number of units/concepts per year o Highest levels covered

	C. UNIFORMITY OF CURRICULUM BETWEEN SCHOOLS	-Documentation of schools' adoption of curriculum
	D. QUALITY OF TEXTS	-Independent assessments of text quality -List of texts used
3. Improved curriculum implementation	A. QUALITY OF INSTRUCTION: use of specific effective instructional strategies	-Teacher self-reports -Documentation of strategies introduced to teachers
	B. QUALITY OF LESSON PLANNING	-Documentation of lesson plans -Teacher self-reports
	C. AMOUNT OF CORE CURRICULUM COVERED in class	-Written documentation of handouts, exams and lesson plans
4. Higher standards for testing and grading	A. TESTING	
	1. Development and use of core semester and final exams/writing samples	-Documentation of core exams and writing samples -Records of number of teachers/students who use/take exams
	2. Quality of exams: comprehensiveness and alignment to/correlation with curriculum and university standards (MDT's, Subject A exam)	-Core exams developed by teachers -Core curriculum developed by teachers -University-developed exams

	B. GRADING	
	1. Development of uniform criteria for course grade determination	-Written evidence of criteria
	2. Internal consistency: correlations between course grades and UC/CSU MDT's, writing sample scores and semester exam scores	-Grade reports -Test scores
	3. High standards: trends in course grades received relative to given scores on standardized tests	-Grade reports -Test scores
5. Improved placement and programming practices	A. DEVELOPMENT OF CRITERIA-DRIVEN PROCEDURES to identify, place and program students appropriately	-Written evidence of criteria-driven procedures (manual, memoranda)
	B. ACCURACY OF PLACEMENT: rate of student transfers/ drops/adds, into and out of assigned classes	-School transfer/enrollment records
	C. EFFICIENCY OF PROGRAMMING: percent of identified students actually programmed into appropriate classes	-Grade reports -Enrollment records

6. Improved administrative support, <u>including</u>:	A. DEVELOPMENT OF GOAL AND PHILOSOPHY STATEMENTS	-Goal statements -Reports -Interviews -Questionnaires
-problem-solving capacity (goal-setting, definition of philosophy, problem identification and diagnosis, decision-making procedures)	B. NUMBER AND QUALITY OF MEETINGS	-Meeting agendas -Summaries -Attendance records -Meeting outcomes (reports, plans, etc.) -Observations -Interviews -Questionnaires
-planning (long and short-term)	1. Number of meetings	
-implementation (organizational structures, management practices, coordination, monitoring, evaluation)	2. Nature of issues addressed (e.g., curriculum development, instructional issues, collaboration, etc.)	
	3. Collaboration: degree of involvement of teachers and other resource people in planning, decision-making and direction of meetings	
	4. Quality of planning and agenda-setting	
	5. Quality and degree of follow-up: additional meetings, oral and written communications	
	C. CLARITY OF ROLE DEFINITION: responsibilities, time allocation for tasks, reporting relationships and coordination with other school/district units	-Job descriptions -Interviews
	D. QUALITY OF FORMAL/INFORMAL COMMUNICATIONS	-Interviews -Questionnaires

E. DEVELOPMENT OF COORDINATED PROGRAMS integrating activities of different segments within and between schools/district	**-Plans -Reports -Observations -Interviews**
F. QUALITY OF MONITORING of curricular and instructional programs	**-Observations -Interviews -Existence of monitoring plans and procedures**
G. TIME AVAILABLE FOR TEACHERS TO TEACH AND PLAN	
1. Amount of planning time	**-Evidence of structured planning time**
2. Number of classroom interruptions	**-Interviews -Teacher reports -Records of school activities**
3. Frequency/length of activities pulling students from classrooms	**-Interviews -Teacher reports -Records of school activities**
H. QUALITY OF MASTER SCHEDULES	**-Master schedules -School planning documents**
I. QUALITY OF TEACHING ENVIRONMENT	
1. Teacher morale, expectations, sense of professionalism	**-Teacher surveys**
2. Teacher empowerment	**-Teacher surveys -Evidence of leadership roles**

7.	Improved student readiness to learn	A. STUDENT STUDY AND TEST-TAKING SKILLS	-Teacher homework and test records -Observations
		B. STUDENT MOTIVATION	
		1. Participation in class	-Class observations
		2. Rates of homework completion	-Teacher records
		3. Attendance rates	-School records
		C. COLLEGE AWARENESS: number of college applications	-Student surveys of applications filed
8.	Institutionalization	A. DEGREE OF ADOPTION OF PROGRAM STRUCTURES, PROCESSES AND STAFF ROLES	-Job titles and descriptions, with reporting relationships and coordination with other school/district units -Budget allocations
		B. EVIDENCE OF PROGRAM OBJECTIVES AS DISTRICT PRIORITY: incorporation into District philosophy/ practices and comprehensive plans	-District planning documents

Appendix 2

Elaboration of Oakland Overview

This section elaborates on the overview by providing details on the items enumerated in the prospectus (see Appendix 1). The numbers used here correspond to these in the prospectus.

[1C(1-2)/1B(1,3)] -- MATH COURSE COMPLETION TRENDS LEADING TO THE FULFILLMENT OF THE MATH COURSE REQUIREMENT FOR ELIGIBILITY

Data on course enrollment trends are fully available for Castlemont and Fremont high schools and their six feeder junior high/middle schools, as collected from district computer tapes. District data for Oakland Technical High School is in the process of being analyzed.

Math Course Enrollment Results Between 1980-1988 (Charts 1-9)

- The number of Black and Hispanic students at Castlemont and Fremont feeder schools (Elmhurst, Frick, Havenscourt, King Estates, Madison, Calvin Simmons) completing algebra at the ninth-grade level increased substantially from 104 to 188 (7.6% to 17.8 of ninth-graders) (Chart 1). The apparent plateau reached by these gains (varying between 17.8% and 21% between 1983 and 1988) is attributed to the development of more stringent prerequisites for taking algebra and higher course standards for passing algebra. Evidence for this is provided in part by the fact that a significantly higher percentage of students are going on to complete algebra or geometry in the 10th grade, as indicated by the following two results.

- The number of Black and Hispanic ninth-graders from the six Castlemont and Fremont feeders who went on to complete geometry in the tenth grade at any OUSD high school rose from 35 to 106, or from 3.9% to 17.1% of those ninth-graders who advanced to tenth grade in any of the six high schools in Oakland (Chart 2). With the exception of a drop in completion rates in 1986 to 13.5% and a large increase in 1987 to 21%, these rates rose steadily from 1980 to 1988.

- The number of Black and Hispanic students completing algebra or geometry in the 10th grade rose steadily from 140 to 305, or from 11.5% to 31% (Chart 8). Although these results reached a plateau between 1983 and 1986, they have increased steadily since 1986 from 24.5% to 31%. Because high school curriculum and tests are now more difficult, these results are considered indications of improved preparation at the middle and junior high levels.

- At Castlemont and Fremont, there has been a gradual and continuous shift in enrollment across grade levels from remedial (below algebra) into college-preparatory (algebra and above) math classes. At Castlemont the percentage of Black and Hispanic students taking algebra or above rose from 21.4% to 36.2% (Chart 3); at Fremont the increase was from 14.3% to 32.7% (Chart 4).

- The average number of math courses at the algebra level or above taken by graduating Black and Hispanic seniors over the course of their four-year high school careers increased. At Fremont, seniors in 1981 had average 0.6 courses in algebra or above while those in 1988 averaged 2.0 such courses (Chart 5a); at Castlemont, the average number of courses in algebra or above rose from 1.3 to 1.9 (Chart 5b). In addition, Black and Hispanic seniors at Fremont in 1981 had taken only 0.1 courses in geometry or above, while those in 1988 averaged 1.2 such courses (Chart 6a); at Castlemont, the average number of courses in geometry or above increased from 0.4 to 0.8 (Chart 6b). There is strong evidence suggesting that these increases were due primarily to program-related effects rather than heightened graduation requirements.

- At Castlemont and Fremont, increases occurred in the number of Black and Hispanic students across grade levels who were enrolled in math courses from which they could go on to graduate having completed at least advanced algebra/trigonometry (the requirement for entrance to UC/CSU) if they took one math course each year for the remainder of their high school careers. Between 1980 and 1988 these numbers increased from 232 to 536, or from 7.9% to 23.8% of high school students (Charts 7 and 8). Between 1986 and 1988 the percentage of students enrolled in such courses rose from 18.1% to 23.9%. Chart 7 aggregates the results across grade levels; Chart 8 breaks down the results by grade level.

- Between 1980 and 1988, the number of Black and Hispanic twelfth-graders from Castlemont and Fremont who actually graduated having met the UC/CSU math course requirement with at least a grade of C in advanced algebra/trigonometry rose steadily from 6 to 46, or from 0.8% to 8.4% of graduating seniors (Chart 9). Between 1986 and 1988 the percentage of these students rose from 5.8% to 8.4%.

[1B(2,4-5)] -- A-F ELIGIBILITY TRENDS AND A-F GPA

Data on completion, validation and GPA in A-F courses is in the process of being compiled.

[1A] -- COLLEGE ACCEPTANCE TRENDS

College admission data has been collected by the program from student self-reports. The data collected before 1987 was found to be unreliable and therefore is not being reported. Data for 1989 are presently being compiled.

Admissions data for the University of California system based on student self-reports is indicated below.

Between 1987 and 1988 the number of Black and Hispanic students from Castlemont, Fremont, and Oakland Technical high schools admitted to, but not necessarily enrolled in, any campus of the University of California rose from 25 (4.5%) to 53 (7.0%). In 1988, 155 (16.7%) of graduating students were admitted to a four year college.

[1D(1-2)] -- PERFORMANCE TRENDS: GRADES

This data will not be reported directly. These results are seen to be reflected in the course enrollment data insofar as students getting grades of A, B, and C dominate enrollments in the next advanced course and students getting grades A and B at lower grade levels tend to persist longer in the college preparatory sequence.

[1D(3)] -- PERFORMANCE TRENDS: STANDARDIZED EXAMS

(a) ALGEBRA READINESS TEST (ART)

Although this test is used primarily for diagnostic purposes and as a basis for evaluating curriculum, it also provides a means of assessing student preparation for algebra. It is accepted across the state as a standardized measure of mathematical skills. Because of the high correlation between students' performance on this exam and their subsequent success in algebra courses, it follows that the test is highly predictive of students' potential for success in algebra and that high scores reflect solid preparation for algebra. It suggests that students performing at a score level of 30 (out of 50) and above are likely to succeed in a well-planned and well-taught algebra class.

This test was administered to 8th graders in four of the middle and junior high schools in 1987 and in all six in 1988 and 1989.

Between 1987 and 1989, the average score on the ART at these middle schools dropped slightly from 23.1 to 21.4 while the numbers taking the exam rose sharply and the number scoring over the threshold levels of 25 (50%) and 35 (70%) correct, also increased. The number of students scoring over 35 rose from 17 (9%) to 59 (8.6%) and those scoring over 25 rose from 70 (37%) to 280 (41%) (Chart

10). This suggests that the distribution of scores of comparable groups of students over the three years shifted to higher levels, explaining the rise in scores over the 50% and 70% levels, while the additional students taking the exam in 1988 and 1989 scored lower and caused the mean to decrease. In sum, many more students are being prepared to take algebra in the 9th grade, as evidenced by the increasing enrollment trends in algebra recorded earlier.

Ethnic breakdowns are as yet unavailable for the ART data.

(b) UC/CSU MATH DIAGNOSTIC TESTS (MDT)

As is the ART, the MDT is a standardized measure of performance highly predictive of students' readiness for more advanced math courses. Chart 11 shows the results at the three Oakland high schools for the precalculus MDT which assesses preparation for calculus. From 1985 to 1988, steady gains have been made. The number of students taking the exam rose from 40 to 71. Mean percent correct rose from 47.1% to 62.9%. The number of students scoring at the mastery level, above 70%, rose from 8 (20%) to 29 (41%). The number of students scoring over 50% rose from 18 (45%) to 48 (67%). These scores add further evidence of a strengthened curriculum and an improved student preparation within the schools.

Ethnic breakdowns are unavailable for the MDT data.

(c) CORE MATH SEMESTER AND FINAL EXAMS

In conjunction with the development of core curriculum in math, ACCESS/CCPP teachers have worked to develop a series of core uniform semester and final exams. These exams are used as much or more for diagnosis and curriculum improvement as they are for evaluation; as such, they have been changed significantly over the years as the core curriculum itself has been developed, and only more recently have stabilized to the point that comparisons between years can be made.

Student performance on the core exams can be used to substantiate the contention that improved curriculum quality and heightened levels of enrollment have in fact been translated into improved preparation of more students for college level math course work. An analysis has been done for classes served by teaching assistants--geometry classes enrolling mostly 10th grade students and advanced algebra and precalculus classes. From 1987 to 1988 (1989 data is as yet unavailable), the geometry core final exam mean score of students at Castlemont and Fremont (Oakland Tech results are being compiled) rose sharply (Chart 12). For the precalculus core exam, the number of students taking the exam increased, and even with this larger pool the mean rose as well. Using similar populations in the two years (that is, isolating the 1988 analysis to the GATE class at Fremont), the percentage correct rose even more substantially (from 47.5% in 1987 to 62.0% in 1988).

The results of the advanced algebra/trigonometry final exam showed little change between 1987 and 1988; however, a change in textbooks in the advanced algebra/trigonometry classes may have resulted in a time for adaptation which mitigated against increased scores in the short run.

Again, the scores on standardized measures of performance give further evidence that increases in math enrollments are true reflections of growth in the level of student preparation for college mathematics.

(d) ENGLISH WRITING SAMPLES

As the primary purpose of the writing samples is to diagnose student needs and use the results to modify curriculum, it is an inappropriate at this time to use the scores to evaluate the program. A plan is being developed to establish a set of criterion-referenced standards for scoring that will allow us to observe long-range trends across schools, thereby assuring confidentiality of results for individual schools and teachers, maintaining the integrity of the process and avoiding the possibility of undermining the usefulness of the samples.

(e) SCHOLASTIC APTITUDE TEST

Results of the math section of the SAT for students at Castlemont, Fremont and Oakland Tech showed some improvement between 1986 and 1989. For all students in math classes served by teaching assistants and particularly for Black and Hispanic students in those classes, the mean and median rose, from 444 to 504 and from 430 to 480 respectively. The number of students scoring above 500 rose from 15 (28%) to 32 (44%). The number of students scoring above 350 rose from 43 (81%) to 69 (96%). The number of Black and Hispanic students scoring above 500 rose from 8 (21%) to 10 (27%). The number scoring above 350 rose from 28 (74%) to 35 (95%).

In addition, many students in other classes took the SAT, indicating strongly the increased college awareness of the students as a whole. In 1986, 103 students at the three schools, of which 67 were Black or Hispanic, took the SAT; by 1989, 223 took the exam, of whom 162 were Black or Hispanic--a greater than doubling in each population.

Verbal SAT results of students in classes served by teaching assistants are unavailable. Results for the whole student group are similar to those for math: the mean and median dropped slightly as numbers rose dramatically, suggesting that opportunities opened for new groups of students to take the exam, with those students getting lower scores and bringing down the mean. This interpretation is strengthened by the finding that the higher

scoring students, representing comparable groups between 1986 and 1989, received high scores (over 500) in greater numbers in the later years.

[2A-D] -- QUALITY OF CURRICULUM

Uniform core curriculum and exams have been developed for all 7th- through 12th-grade college preparatory math courses at Castlemont, Fremont, Oakland Technical and their eight feeder middle and junior high schools. In English, a literature-based core writing curriculum has been developed. The curricula are aligned with the California State Framework and with university standards; more material is being covered in more depth. In addition, the curricula are articulated between grades, and uniformity has been achieved by virtue of their adoption in all participating schools.

[3A-C] -- CURRICULUM IMPLEMENTATION

Teachers are using a broad variety of new instructional strategies drawn from contacts with each other and with ACCESS/CCPP coordinators and also are using the more comprehensive core curricula they have helped develop. Core exam results (above) give strong evidence that more curriculum is being covered in classes. A survey is in preparation that will help ascertain the range of new strategies being used and the depth of coverage in the curriculum.

[4A(1-2)] -- DEVELOPMENT AND USE OF CORE MATH EXAMS AND ENGLISH WRITING SAMPLES

Math core exams have been developed that are tied tightly to the curriculum, and are therefore also uniform, articulated between grades, and aligned with the Framework and university standards. In their uniformity, the exams provide standardized measures across schools that can be used as the basis for diagnostic analyses of student performance and for subsequent curriculum revision. English writing samples have also been developed and used extensively, by almost 2000 students in 1988. The writing samples are used to diagnose student needs as well as to determine needed curricular revision.

[4B(1-2)] -- GRADING STANDARDS

Evaluation of grading practices and standards is in progress.

[5-6] -- PLACEMENT AND PROGRAMMING, ADMINISTRATIVE SUPPORT

This information will be provided in the next report.

[7] -- STUDENT READINESS TO LEARN

A survey is being developed to assess teacher reports of changes in student readiness. This data is of limited usefulness because of the difficulty of attributing changes in class participation, homework completion, etc., directly to a particular program or programs.

[8] -- INSTITUTIONALIZATION
See Oakland Overview.

Appendix 3

Elaboration of San Francisco Overview

[1C.2] - MATH COURSE COMPLETION TRENDS

Advancement to Algebra

Data is being compiled to determine the rates at which 8th-graders from the five schools advance to and succeed in algebra at the high-school level. However because there is so much variance in the San Francisco high schools in their criteria for enrolling students in algebra in the 9th grade, we are not planning to use algebra enrollment statistics at this point in time as a reliable indicator of the students' preparation. (In Oakland, the program has helped the schools develop uniform criteria for enrolling students in algebra and has established procedures for assuring that all students eligible for algebra are in fact enrolled.) Evidence of preparation for algebra will be provided principally by students' performance on the UC/CSU Algebra Readiness Test.

[1D.3] -- PERFORMANCE TRENDS: STANDARDIZED EXAMS (ALGEBRA READINESS TEST)

See attached report, "Preliminary Results of the UC-CSU Algebra Readiness Test for Grades 7 and 8 at SFUSD Middle Schools," June 21, 1989.

[3-7] - CURRICULUM, TESTS, GRADING, COUNSELING, ADMINISTRATION, STUDENT READINESS TO LEARN

As with Oakland, high-quality math and English curricula, exams and writing samples and instructional practices have been developed by the program and are being used extensively by all the schools. More curriculum is being taught at higher levels. A survey given to teachers at each of the eight middle schools is being analyzed, and will contain information on curriculum implementation and student behaviors. Programming at the middle school level is not an issue because nearly all classes in the schools are heterogeneous. However, methods are being developed to assure more accurate placement in 9th-grade math and English classes at the high schools. Plans are being developed to assess issues related to administrative practices.

[4] - INSTITUTIONALIZATION

See San Francisco Overview.

PRELIMINARY RESULTS

UC/CSU Algebra Readiness Test
for Grades 7-8
at
SFUSD Middle Schools
Participating in
ACCESS/CCPP

1987 - 1989

Submitted by:

ACCESS/CCPP
Louis Schell, Director
642-6280

June 21, 1989

PRELIMINARY RESULTS OF ALGEBRA READINESS TEST

This report presents preliminary results of an analysis of scores on the UC/CSU Algebra Readiness Test (ART) at the five Phase 1 and Phase 2 consent-decree middle schools in SFUSD. The ART is one of several instruments being used to assess the effectiveness of ACCESS/CCPP in those schools. It is accepted across the state as a standardized measure of mathematical skills. Because of the high correlation between students' performance on this exam and their subsequent success in algebra courses, it follows that the test is highly predictive of students' potential for success in algebra and that high scores reflect solid preparation for algebra. It suggests that students performing at a score level of 30 (out of 50) and above are likely to succeed in a well-planned and well-taught algebra class.

The results of the analysis are highly promising, and reflect strong progress of the ACCESS/CCPP program in the five schools studied.

Grade 8

Between 1987 and 1989, both the mean and median scores for eighth-graders taking the ART, aggregated across the five consent decree schools (Martin Luther King, Jr.; James Lick; Horace Mann; Potrero Hill; and Visitacion Valley), rose steadily and substantially (Chart 1). The mean rose from 19.7 to 23.0 out of 50; the median rose from 17.5 to 20. The increase for Black and Spanish-speaking students was equally impressive (Chart 2), with the mean rising from 16.6 to 19.9 (no median data are available for 1987).

The increases in mean scores reflect a generalized redistribution of scores to higher levels, especially into those ranges predictive of future success in algebra. This suggests strongly that there have been increases in the number of students graduating from these schools who would go on to succeed in algebra at the high-school level. The number of students scoring at or above the "mastery" level -- 35 or better -- rose from 64 (11.5% of test-takers) in 1987 to 84 (15.6%) in 1988 and 106 (17.9%) in 1989, an increase of greater than 50% over a two-year period (Chart 3). The number scoring 30 or better -- the minimum level predictive of future success in algebra -- rose from 106 (19.0%) in 1987 to 126 (23.4%) and then 163 (27.6%) in 1989, representing by 1989 over one-quarter of the population tested. The shifts occurred down the line to the very lowest scores, with percentages of students scoring at 25 or above rising from 27.8% to 37.9% and those scoring below 20 dropping from 58.4% to 44.7% of those tested.

Again, the distributional shifts were equally evident for Black and Spanish-speaking students (Chart 4). The number scoring 35 or above rose from 14 (4.3%) to 22 (7.6%) and then 28 (8.5%) in 1989; those scoring 30 or above rose from 25 (7.6%) to 41 (14.1%) and to 53 (16.1%) in 1989; at 25 or above, from 54 (16.5%) to 63 (21.7%) and 92 (28.0%) in 1989; and below 20, from 71.9% in 1987 to 55.6% in 1989.

Grade 7

Performance improvements of 7th-grade students on the test were equally impressive, and suggest that improvements at the eighth-grade level will continue into the future (Chart 1). Between 1987 and 1989, the mean score for seventh-graders aggregated across the five middle schools rose from 13.7 to 17.9, with substantial increases occurring at each of the schools. Most impressively, the number of students scoring 35 or above rose from 15 (2.5%) in 1987 to 55 (9.5%) in 1989.[1] This figure bodes well for chances of success by next year's eighth-graders. For example, the seventh-grade class of 1988 averaged 18.0 and had 64 students scoring at mastery level, while only 15 seventh-graders got a 35 or better in 1987 and the mean was 13.7; in turn, that former class did considerably better on the exam as eighth-graders (in 1989) than did the latter as eighth-graders (in 1988). This suggests that performance of students on the exam in the 7th-grade is predictive of the levels of success they will achieve when taking it again in the eighth grade. Given, then, that the percentage of seventh-graders scoring at or above the mastery level stayed even between 1988 (9.9%) and 1989 (9.5%), and the mean remained the same (18.0 in 1988; 17.9 in 1989), it is reasonable to predict that the eighth-graders of 1990 will score as well as those in 1989, maintaining the improvements for a fourth year after this initial period of growth from 1987 to 1989.

In sum, these results show noticeable improvements in students' preparation for algebra. There has been an upward redistribution of scores, with mean and median scores rising. In addition, the numbers of students scoring in the important brackets of 30 or 35 and above on the Algebra Readiness Test have increased substantially. These improvements have been at least as great in the Black and Spanish-speaking student population as in the total group of students. With only 5% of Blacks and Spanish-speaking students from the schools having advanced to and succeeded in algebra at the 9th-grade level as recently as 1988, these results suggest significant potential for improvements in the future.

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[1]NOTE: Detailed distributional data are unavailable for the 1987 test administration. Ethnic breakdowns of Grade 7 data are unavailable for 1987 and 1988.

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CHART 1. Means, medians and distributions of scores for ALL students taking Algebra Readiness Test at five consent-decree middle schools,* 1987 to 1989

	GRADE 8										GRADE 7	
	Number of students with score in range:								Mean Score	Median Score	Number of students with score 35 or up	Mean Score
	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35↑				
1987 n=558	11	79	127	109	77	49	42	64	19.7	17.5	15 (2.5%) n=606	13.7
1988 n=538	10	37	111	113	100	41	42	84	21.6	19	64 (9.1%) n=605	18.0
1989 n=591	4	41	113	106	103	61	57	106	23.0	20	55 (9.5%) n=577	17.9

*Schools are: Martin Luther King, Jr./ James Lick / Horace Mann / Potrero Hill / Visitacion Valley

ACCESS/CCPP

CHART 2. Means, medians and distributions of scores for Black and Spanish-speaking students taking Algebra Readiness Test at five consent-decree middle schools,*

1987 to 1989

	GRADE 8									
	Number of students with score in range:								Mean Score	Median Score
	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+		
1987 n=327	7	57	90	81	38	29	11	14	16.6	15
1988 n=290	5	26	66	80	50	22	19	22	18.9	17
1989 n=329	2	26	85	70	54	39	25	28	19.9	17

*Schools are: Martin Luther King, Jr. / Horace Mann / James Lick / Potrero Hill / Visitacion Valley

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CHART 3. Cumulative number and percentage distributions of scores for ALL students taking ART at five consent-decree schools,* 1987 to 1989

GRADE *8*	Number (percent) of students with score in range:				
	<20	20↑	25↑	30↑	35↑
1987 n=558	326 (58.4%)	232 (41.6%)	155 (27.8%)	106 (19.0%)	64 (11.5%)
1988 n=538	271 (50.4%)	267 (49.6%)	167 (31.0%)	126 (23.4%)	84 (15.6%)
1989 n=591	264 (44.7%)	327 (55.3%)	224 (37.9%)	163 (27.6%)	106 (17.9%)

* Schools are: Martin Luther King, Jr. / James Lick / Horace Mann / Potrero Hill / Visitacion Valley Middle Schools

ACCESS / CCPP

CHART 4. Cumulative number and percentage distributions of scores for Black + Spanish-speaking students taking ART at five consent-decree schools,* 1987 to 1989

GRADE *8*	Number (percent) of students with score in range:				
	<20	20↑	25↑	30↑	35↑
1987 n=327	235 (71.9%)	92 (28.1%)	54 (16.5%)	25 (7.6%)	14 (4.3%)
1988 n=290	177 (61.0%)	113 (39.0%)	63 (21.7%)	41 (14.1%)	22 (7.6%)
1989 n=329	183 (55.6%)	146 (44.4%)	92 (28.0%)	53 (16.1%)	28 (8.5%)

* Schools are: Martin Luther King, Jr. / James Lick / Horace Mann / Potrero Hill / Visitacion Valley Middle Schools

Appendix B

California Academic Partnership Program

The California Academic Partnership Program Report to the California Postsecondary Education Commission for their 1989 *Preliminary Report on Intersegmental Student Preparation Programs*

Deborah Osen Hancock, Director
California Academic Partnership Program

The California State University, July 16, 1989

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The California Academic Partnership Program Report for CPEC's 1989 Preliminary Report on Intersegmental Student Preparation Programs

Program Title:

California Academic Partnership Program (CAPP)

Partner Institutions :

The California State University (CSU)
The University of California (UC)
The California Community Colleges (CCC)
The California State Department of Education (CSDE)

The program is administered by the Trustees of the California State University in cooperation with the Regents of the University of California, the Board of Governors of the California Community Colleges, and the State Superintendent of Public Instruction.

Statewide Program Director:

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Program Components

As one aspect of the educational reform movement in California, CAPP stimulates the state's public middle and senior high schools to work cooperatively with public and private postsecondary institutions to improve the capacity of public secondary schools to prepare and motivate students for postsecondary education.

As a principal means of achieving its purposes, CAPP offers grants to two types of projects: curriculum and assessment. Through assessment projects, teams of school and college educators develop, field test, and provide diagnostic testing services to middle and high school students and their teachers. Through curriculum projects, school-college partnerships develop and test the effects of partnership models on curriculum and access issues.

In its current funding cycle (1987-90) CAPP is funding ten curriculum and two assessment projects. In 1984-87, the first funding cycle, CAPP funded twenty curriculum projects and three assessment projects. The change in number of projects

funded was recommended by the CAPP Advisory Committee as a way to increase the quality and impact of projects and to adjust for increasing costs of the Mathematics Diagnostic Testing Project. Work on the 1990-93 cycle has already begun with the awarding of fifteen planning grants for 1989-90. Grant recipients will spend the year reviewing school needs and resources in preparation for developing their proposals for full funding in the third cycle.

CAPP's 1984 authorizing legislation (AB 2398, Hughes, Chapter 620)requires that priority be given to partnerships which are operating in secondary schools with a large proportion of students underreprresented in higher education. These include students from any of the following:

- historically underrepresented groups (Hispanics, Blacks, and American Indians),
- low income homes, and/or
- geographic areas with chronic low college attendance rates.

The data which follow refer to the curriculum projects, unless otherwise noted. Much of the data is from reports filed by Evaluation and Training Institute (ETI), CAPP's external evaluator, and by CAPP's ten curriculum and two assessment projects. A copy of ETI's 1988 Annual Report is included with this document. Copies of project annual reports are on file in the CAPP office. Other data will await receipt of relevant CBEDS reports, requested several months ago but not yet received.

Section A. School Population

School Enrollment

Figure 1. Total Program School Enrollments by Ethnicity

Year	Amer. Indian	Asian/ Filipino	Black	Hispanic	Pacific Islander	White	Other	Total
1987-88								
Total/	243	3739	4781	12084	89	11134	144	32214
Percent:	0.7%	11.6%	14.8%	37.5%	0.3%	34.6%	0.4%	99.9%

Source: Projects' 1988 Annual Reports. This figure will be reconciled with CBEDS data when available.

Figure 1 presents data related to the enrollment in middle schools and high schools served by CAPP curriculum projects in 1987-88. More than 32,000 students were enrolled in the project schools. The largest percentage of these students were Hispanics (38 percent), with White students a close second at 35 percent. Other historically underrepresented students account for 15 percent (Blacks) and one percent (American Indian) of the total.

Figure 2. No. and Ethnicity of Program's High School Graduates

Year	Amer. Indian	Asian/ Filipino	Black	Hispanic	Pacific Islander	White	Other	Total
1987-88								
Total/								
Percent:								

Source: These data have been requested from CBEDS.

Figure 2 data have not been required of the projects in the past, and are therefore currently unavailable. The figure will be completed with CBEDS data, and reported in the 1989 report to CPEC.

Some longitudinal data about ethnicity of high school graduates in CAPP program schools exist, although in a somewhat different form. As reported in the 1988 CPEC Evaluation of the California Academic Partnership Program (p. 13), there were 4,954 non-white graduates in CAPP high schools. They represented 59.6% of their respective graduating classes (the range was from a low of 14% to a high of 89%). This contrasted sharply with the statewide average of public non-white-high school graduates in 1984: 37.8%.

In 1985 the total number of non-white high school graduates in CAPP schools was 5,950. Part of the reason for the increase is that data were available for one additional project. Nonetheless, the percent of non-white graduates represented 65.25% of their graduating classes, an even greater contrast with the 1985 statewide average of public non-white high school graduates: 38.4%.

These data indicate that while the state average of non-white graduates increased by a little more than a half of a percentage point (0.6%) between 1984 and 1985, the average of non-white graduates from CAPP schools in the same period increased by nearly 6% (5.6%).

Figure 3. No. and Ethnicity of High School Graduates Completing A-F Requirements, 1987-88

Year	Amer. Indian	Asian/ Filipino	Black	Hispanic	Pacific Islander	White	Other	Total
1987-88								
Total/								
Percent:								

Source: These data have been requested from CBEDS.

CAPP has not required this information in the past, and therefore it is currently unavailable. The figure will be completed with CBEDS data, and reported in the 1989 report to CPEC.

Figure 4. No. and Ethnicity of High School Dropouts

Year	Amer. Indian	Asian/ Filipino	Black	Hispanic	Pacific Islander	White	Other	Total
1987-88 Total/ Percent:								8.23%

Source: Projects' 1988 Annual Reports. This figure will be augmented with CBEDS data when available.

Figure 4 indicates that the average dropout rate in schools served by CAPP projects was 8 percent. The range was from a 2 percent rate (reported for two schools) to a high of 22 percent report at one school.

These data will be verified with CBEDS data, since some of the projects reported "estimates" of dropout rates. Also, the figure will be expanded to include a breakdown by ethnicity. This 1987-88 information will be included in the 1989 report to CPEC.

Figure 5. No. and Ethnicity of High School Students Enrolled in Advanced Level Mathematics and Science Courses

Year	Amer. Indian	Asian/ Filipino	Black	Hispanic	Pacific Islander	White	Other	Total
1987-88 Total/ Percent:								

Source: These data have been requested from CBEDS.

CAPP has not required this information in the past, and therefore it is currently unavailable. The figure will be completed with CBEDS data, and reported in the 1989 report to CPEC.

Figure 6. Estimate of Socioeconomic Level of School Populations, 1987-88

Year	Total school population who are AFDC recipients
1987-88 Percent:	

Source: Project self-report data to be collected in fall, 1989.

CAPP has not required this information in the past, and therefore it is currently unavailable. The figure will be completed with project self-report data, and reported in

the 1989 report to CPEC.

Section B. Program Student Population

Criteria for selection as a program participant

AB 2398, which established CAPP in its present form, designates that CAPP is to provide activities and services which enhance the ability of middle and high school students, especially those underrepresented in postsecondary education, to benefit from college preparatory curricula.

CAPP projects review student performance data at participating project schools, and select one or more target curricular areas for the focus of their project: English, Social Sciences, Math, Science, or Foreign Language. Within the selected area the targeted courses are college preparatory courses or those courses designed to prepare students for entrance into college prep courses. Students are selected to participate in the project based on their specific needs in the target curricular area and enrollment in courses.

All CAPP projects provide services for students underrepresented in postsecondary education (see page two of this report for the program's definition of "underrepresented" students).

Definition of "served" for this program

Only those students who are directly impacted by the program (i.e., those who receive direct services from a project) are reported as being "served" by CAPP.

This definition has been consistently used in data gathering related to all second cycle (1987-90) projects. It differs from that used in first funding cycle projects. Those initial projects reported data on participants both directly and indirectly impacted by them. As a result, those data reported in the 1988 CPEC Evaluation of CAPP document reflect that earlier definition, and show much larger numbers of student participants than do the current projects.

It should be noted that the change in definition was made at CPEC's recommendation, following development of their 1988 CAPP evaluation document, and was approved by the CAPP Advisory Committee.

Major Activities and Services of the Curriculum Projects

Figure 7. Major Activities and Student Services Provided by CAPP Curriculum Projects

Activity/Service	1984-87 Projects		1987-88 Projects	
	No.	%	No.	%
Curriculum Devel.	19	95%	9	100%
Mathematics	12	60	5	55
Science	9	45	5	55
Social Science	4	20	2	22
English	13	65	6	67

Activity/Service	1984-87 Projects		1987-88 Projects	
	No.	%	No.	%
Tutorial	18	90%	8	88%
Inservice	17	85	9	100
Guidance/Counseling	14	70	8	88
Testing	9	45	6	67
Seminars/Conferences	12	60	9	100
Summer Programs	9	45	6	67
Team Teaching	8	40	4	44
Articulation	4	20	9	100
Field Trips	4	20	6	67
Parent Involvement	4	20	7	77
Total No. of Projects	20	100%	9	100%

Source: CPEC's 1988 Evaluation of the California Academic Partnership Program (CAPP), p. 11, and ETI's 1988 External Evaluator's Annual Report, p. 18d and 18e.

Figure 7 presents the curricular areas of the first and second cycle CAPP projects. Projects may be involved in several curriculum areas; for example, six of the nine 1987-88 projects addressed two or more academic subjects. More than half of them focused on English (6), mathematics (5), and science (5). Two projects targeted social science.

CAPP offers a wide variety of services to students and faculty. From the data above, it can be seen that the projects funded in the second funding cycle (1987-90) are offering a wider variety of activities and services than did those in the first funding cycle, especially in articulating between the project schools and colleges, involving parents in project activities, and providing and participating in seminars and conferences.

CAPP's tradition of providing for curriculum, faculty, student, parent, and partnership development has continued and intensified with the second cycle projects. All of the 1987-88 projects were involved in curriculum development, inservice articulation, and faculty seminars/conferences. Eight of the nine projects provided tutoring and/or counseling; seven have parental components.

Figure 8. No. and Grade Level(s) of Program Students

Year	6	7	8	9	10	11	12	Total
1987-88								
Total/	50	978	544	1818	1183	1453	685	6711
Percent:	0.7%	14.6%	8.1%	27.1%	17.6%	21.7%	10.2%	100%

Source: CAPP External Evaluator's Annual Report. Los Angeles: Evaluation and Training Institute, July 30, 1988. (p. 18b).

Figure 8 indicates the number of participating students by academic grade level. The greater number of participants (1,818) were 9th graders (27 percent of all CAPP students). This was followed by 1,453 11th graders (22 percent of the total) and 1,183 10th graders (17 percent).

Figure 9. No. and Ethnicity of Program Students

Year	Amer. Indian	Asian/ Filipino	Black	Hispanic	Pacific Islander	White	Other	Total
1987-88								
Total/	136	1002	920	2645	19	2514	260	7496
Percent:	1.8%	13.4%	12.3%	35.3%	0.2%	33.5%	3.5%	100%

Source: CAPP External Evaluator's Annual Report. Los Angeles: Evaluation and Training Institute, July 30, 1988. (p. 18c)

Figure 9 shows the number and percent of program students by ethnicity. Participating students are drawn from all ethnic groups. The largest percentage of statewide participants were Hispanics (35 percent) followed by Whites (34 percent). Asian/Filipino students accounted for 13 percent of the total number of CAPP students, with Blacks being 12 percent.

The difference in total number of students reported in Figures 8 and 9 results from inclusion in this table of peer counselors and tutors, who range from middle school to graduate school students.

Figure 10. No. and Gender of Program Students

Year	Male	Female	Total
1987-88			
Total/	1808	1677	3485
Percent:	52%	48%	100%

Source: Project Progress Reports, December 15, 1987.

Figure 10 presents a comparison of the number of male and female students served by the program. A 4% difference can be noted, with male students constituting 52% of the participating students, and female students accounting for 48% of the total.

Figure 11. Estimate of Socioeconomic Level of Program Students

Year	% of total school population who are AFDC recipients
1987-88	
Program Average:	

Source: Project self-report data to be collected in fall, 1989.

Figure 11 data are not yet available for 1987-88. The figure will be completed in the future with project self-report data to be collected on a sample of approximately 200 students per project for 1988-89 and subsequent years. The sampling will be a stratified (by grade level) random sample, selected under the direction of Evaluation and Training Institute personnel. The data will be based on school records as of the end of Fall semester each year.

Figure 12. Immigrant Status of Program Students

Year	Born in U.S.A.	Not Born in U.S.A.	Total
1987-88			
Total/			
Percent:			

Source: Project self-report data to be collected in fall, 1989.

Figure 12 data are not yet available for 1987-88. This figure will be completed in the future with project self-report data to be collected on a sample of approximately 200 students per project for 1988-89 and subsequent years.The sampling will be a stratified (by grade level) random sample, selected under the direction of Evaluation and Training Institute personnel. The data will be based on school records and/or student surveys conducted by the projects.

Figure 13. Language Spoken in Program Students' Homes

Year	English	Language Other Than English	Total
1987-88			
Total/			
Percent:			

Source: Project self-report data to be collected in fall, 1989.

Figure 13 data are not yet available for 1987-88. This figure will be completed in the future with project self-report data to be collected on a sample of approximately 200 students perproject for 1988-89 and subsequent years. The sampling will be a stratified (by grade level) random sample, selected under the direction of Evaluation and Training Institute personnel. The data will be based on school records and/or student surveys conducted by the projects.

Section C. Evaluative Information

Program Objective 1: To establish curriculum development projects addressing secondary school curriculum improvements and the ability of students to benefit from these improvements.

CAPP established nine curriculum projects in 1987-90 to meet this objective. Through a combination of curriculum development activities, and services to students, parents, teachers, counselors, and partnership institutions, CAPP projects address secondary school curriculum improvements and the ability of students to benefit from them.

In 1987-88 the projects were located throughout the state in Santa Ana, Huntington Beach-Long Beach, Pasadena, Bishop-Delano-Porterville, Dos Palos (in central California), Watsonville, Oakland (which has two projects), and Oroville (north of Sacramento).

Through Progress and Annual Reports the projects verify the impact they are having. In 1987 the data constitutes baseline data. Project reports are reviewed and analyzed by CAPP's external evaluation, Evaluation and Training Institute (ETI).

Data listed on "Evaluation Framework for Intersegmental Programs for Secondary School Students" for CAPP curriculum projects are presented below.

Figure 14. Overall and Target Subject Student Grade Point Averages (GPAs)

Year	Overall	English	Foreign Language	Math	Science	Social Science
1987-88 Average GPA:	2.55	2.34	2.6	2.41	2.27	2.6

Source: Project Annual Reports, 1988.

Figure 14 shows the average GPA's overall of student participants. It also presents the average of participating students' GPA's in the project target subjects. The target subject is that subject selected by the project partners as the focus for their project. Projects may address one or more target subjects.

While the average GPA in all classes taken by participating students is 2.6, the target subject GPAs range from a low of 2.3 in science to a high of 2.6 in Foreign Language and Social Science.

Figure 15. Average Standardized Test Percentiles in Target Subjects

Year	Target Subject	Percentile
1987-88		
Average Percentile:	Mathematics	62%ile
	Science	45%ile
	Language	49%ile
	Reading	56%ile

Source: Project Annual Reports, 1988.

Figure 15 reports the percentile scores achieved by project students on standardized test in each subject area. These standardized tests are typically given annually districtwide. Thus across projects, more than one test may be used to demonstrate performance in a given target subject. For example, seven CAPP projects reported standardized test scores in mathematics. Five of the projects used the California Achievement Test (CAT) and two used the Comprehensive Test of Basic Skills (CTBS). This was typical of all the target subjects in that all projects reported either CAT or CTBS data.

School Dropout Rates

As reported in Figure 4 of this document, the average school dropout rate for CAPP schools was 8%.

Pre- and Post-Analysis of Program Impact on Curriculum

In their 1988 Annual Reports projects were asked to describe the status of their curriculum activities. This provided baseline information on program impact on curriculum. All of the projects reported that they were working on existing courses; one project was invited by the school district to assist in the development of a new course and did so.

It was interesting to observe that the CAPP projects in rural schools tended to work on curriculum alignment, bringing the school curriculum into alignment with State Department of Education documents and with the state academic senates' "Statements of Competencies Expected of Entering Freshmen." In contrast, the urban schools seemed to have completed the alignment phase of their curriculum work prior to receiving their CAPP grant, and were more interested in refining their curriculum through new pedagogical approaches, course instructional units (as opposed to total course content), student materials and learning opportunities.

All projects reported widespread involvement of faculty (both secondary and postsecondary) in staff development opportunities. This was especially evident in projects which were developing cross disciplinary collaboration on curriculum development.

All of the projects described articulation activities. These ranged from activities between project middle and secondary schools, between the 7-12 schools and the postsecondary institutions, and between postsecondary institutions. One project director observed that the CAPP activities had resulted in "the most productive articulation that has ever taken place

between the project high school and its feeder schools." The articulation dialogs were identified by the projects as of major value, not only to the task at hand, but opening the way for continuing dialogs in the future.

Seven of the nine projects report that they were able to integrate project-developed pedagogy, instructional materials, and coursework into existing courses during the first year of the project.

In their 1989 Annual Reports the projects have been asked to identify the process that has been used to achieve curricular change, and that will be included in next year's report to CPEC.

Figure 16. College Enrollment Data for High School Graduates in Project Schools

Year	Percent Attending College
1987-88	
Program Average:	50.6%

Source: Projects' December, 1987 Progress Reports.

Figure 16 indicates that half of the graduates from project schools report that they are planning to attend college. Among the projects there is a wide range reported from a low of 25% to a high of 73%.

Program Objective 2: To establish a voluntary assessment program to analyze the readiness of students for college work, identify their academic needs, and reduce demand for college remedial programs.

CAPP funded two assessment projects in 1987-88: the Mathematics Diagnostic Testing Project (MDTP) and the Reaching University Writing Standards project. The MDTP has been funded by CAPP since 1984, and is also supported by the University of California and the California State University. Through its ten scoring and service centers located on UC and CSU campuses, it provides testing services to public middle schools and high schools throughout the state.

The Reaching University Writing Standards project was funded in 1985 for a two-year period to develop an acceptable, cost-effective method of diagnosing student writing skills. Based on the results of its testing efforts, the project was funded in 1987-90 to develop resource materials and workshops for secondary school teachers statewide to assist them in preparing students to meet university writing standards when they entered college.

The assessment programs also submit progress and annual reports which are analyzed by CAPP's external evaluator, Evaluation and Training Institute.

Data listed on "Evaluation Framework for Intersegmental Programs for Secondary School Students" for CAPP assessment projects are presented below.

Figure 17. Test Use by Middle and High School Students, Mathematics Diagnostic Test

Test	Test Use	Increase from Previous Year
1987-88		
Algebra Readiness	145,219	18.6%
Elementary Algebra	87,581	-2.4%
Intermediate Algebra	34,942	0.3%
Precalculus	15,962	0.8%
Total	283,704	8.0%

Figure 17 shows that nearly 284,000 MDTP tests were scored for middle and high school students during 1987-88, an increase of 8% over the previous year, with the greatest increase (19%) in the test which determines student readiness for first year algebra. Slight increases were noted in test usage for the tests which assess readiness for calculus and a course in mathematical functions and trigonmetry. A slight decrease in usage was observed in the test which assesses readiness for second year algebra.

Longitudinal data exist on MDTP test usage, which shows that the number of student tests scored increased 257% during the inital three years of its CAPP funding (from 73,000 to 262,000). The number of university scoring and service sites increased from 5 to 10 during that time.

Similar data are not available for the Writing project, since the resource book and related workshops were being researched and written during 1987-88.

Teacher Reports

MDTP test usage data reveal that over 4,000 (4,214) middle and high school teachers used MDTP tests in their classes in 1987-88. These teachers represented 843 schools throughout the state.

In an informal telephone survey of a sample of these teachers was conducted in 1988 by the Evaluation and Training Institute (ETI). They reported that

> The overall response to the tests of those teachers interviewed was extremely positive. The quick turn around time for test scoring was greatly appreciated by both administrators and teachrs. Over 80% of those teachers surveyed indicated that they were particularly impressedwith the presentation of test results. These faculty indicated that the poresetnation was useful for both parents and students alike.
>
> Over one-third of the teachers interviewed noted that unlike the CTBS examinations, the MDTP tests are the only tests that measure the conceptual skills students need to suceed. These faculty were pleased that the MDTP tests have led to increased teacher involvement in the process of curriculum revision/enhancement, providing a strong sense of faculty ownership. All surveyed teachers indicated that based in part on the MDTP test results, they have held workshops, participated in a variety of inservice activities, and restructured curriculum to emphasize problem solving and higher-level thinking skills.

(Report to CAPP office, June, 1989)

Although similar data are not yet available for the Writing project, of interest is the composition of the project's resource book writing team: 6 high school and middle school teachers, and 5 university faculty.

When the first draft of the book was finished, it was sent to 24 reviewers selected by the project. Reviewers included 5 elementary and secondary teachers, 16 university faculty, 2 school district office personnel, and a representative of the national office of a major testing service. Reviewers were unanimous in noting the need for this book and inservice related to it. Reviewers' comments were incorporated into the final version of the book, Teaching Analytical Writing, which was published and distributed statewide through California Writing Project sites and the California State Department of Education in fall, 1988.

College Remedial Course Enrollments

One example of a reduction of college remedial course enrollments is found in a report by Dr. Philip Curtis of UCLA. UCLA has provided MDTP testing and services throughout the Los Angeles Basin, while at the same time test usage throughout the state has increased dramatically (see narrative which follows Figure 17). He stated that UCLA reported a decrease in enrollments in intermediate algebra, a noncredit remedial course, over a five year period. In 1982-83 456 students were enrolled in intermediate algebra, while only 164 were enrolled in 1987-88.

Source: Curtis, Jr., Philip C. "The California Mathematics Diagnostic Testing Project." a paper presented at the National Conference on Prognostic and Diagnostic Testing in Mathematics. Sponsored by the Mathematical Association of America, November 18-19, 1988, Washington, D.C.

Section D. Reasons for the Results Reported Above.

It is important when reviewing the results reported above to remember that 1987-88 was the first year most of the projects were in existence. Even the two Showcase projects (1984-87 projects which were awarded continuing funding in the second funding cycle to serve as models of maturing partnerships) were launching out into new curriculum areas and grade levels. These data, then, represent baseline information in the truest sense of the word.

A few comments on the results are in order. In Section B Program Student Population, data presented in three of the figures deserve further explanation.

The data reported in Figure 4 (School Dropout Rate) seems unusually low (8%). This figure will be verified once CBEDS data are received.

Figure 9 (Number and Ethnicity of Program Students) shows what may seem to be a high percentage of White students. While Whites compose approximately a third (34 percent) of all project students, many of these are from lower-economic groups or geographic areas which have been consistently underrepresented in postsecondary education. In some cases Whites have been included in the projects to that targeted students were not "stigmatized" by special

inclusion in a program. Projects have actively sought to involve "underrepresented students" as outlined in the CAPP legislation and defined on page two of this document. It must be remembered that the legislation seeks to improve preparation for college for all students, especially those underrepresented in postsecondary education.

Figure 10 (Number and Gender of Program Students) reports a lower number of program students than do the previous figures. Figure 8 and 9 are based on the projects' Annual Reports, which were prepared in June, 1988. The lower total number of students reported in Figure 10 is due to the source of the information, the projects' December 15 progress reports. In December, 1987, many of the projects had not yet begun to impact the large number of students they would later in the year. Many of the projects spent fall semester, 1987, analyzing and preparing curriculum to be introduced during the spring semester.

In Section C, Evaluative Information, two figures deserve comment: Figure 16 and 17.

Figure 16 (College Enrollment Data for High School Graduates in Project Schools) may seem high at 51%. It should be remembered that this is mainly student self-report data collected just before high school graduation.

It should also be noted that a breakdown of which level of postsecondary education (community college, University of California, California State University, private postsecondary institution) students are planning to attend is not available at most project school sites.

Figure 17 (Middle and High School Student Use of MDTP Tests) shows the greatest increase in usuage for the Algebra Readiness test. This was a relatively new test in 1987-88 and many middle schools administered it. This test was the first that has become widely used at the middle school level. As an example, the test was widely used in middle schools in the Los Angeles Unified School District.

Section E. Outcomes not Included in the Study Prospectus

In their 1988 Annual Reports the nine 1987-90 projects, responding to an open-ended question regarding unanticipated outcomes, reported a variety of outcomes. Those mentioned most frequently fall into five categories:

- unexpected impact of the project on curriculum. Eleven (11) projects noted that the impact of the project exceeded their expectations. Four (4) of these projects observed that the CAPP project had become the basis for their being able to obtain other related grants; four (4) found their work extending to other school sites within and beyond the project district; two (2) reported that project faculty were being called on as curriculum experts to assist faculty in subject areas which differed from those targeted in their CAPP project.

- unexpected impact on participant career development. Nine (9) projects reported that their CAPP projects were influencing the career development of project participants. Three (3) reported that project tutors from a variety of disciplines had expressed an interest in pursuing careers as educators; impact on student, faculty, and student teachers was reported by two (2) projects each. The impact included increased use of career information materials at the school site by project students, and student teachers participating in the project being offered employment

in the project schools.

- unexpected student growth. Seven (7) projects observed that student academic and personal growth had far exceeded faculty expectations (which they thought were already high). Four (4) projects attributed the growth to the fact that these students were given the opportunity to participate in other activities on the partner college campuses; three (3) projects found that other factors contributed to their growth, such as field trips to local corporations and college campuses, requests from college faculty for students to address them on project-related activities, and a local radio station featuring students reading stories and poetry they had developed in the project.

- unexpected improvement in communication between faculty and counseling staff. Four (4) projects reported that communication between faculty and counselors had increased significantly. In one case university project personnel met with teachers and counselors at a project high school to assist project teachers in helping the counselors understand how their standard practice in placing students was systematically preventing students from entering the college prep track once they enrolled in high school. This practice had had a particularly negative effect on underrepresented minority students in the school.

CAPP has a longstanding interest in unanticipated project outcomes, and as a result, has made a concerted effort to document them. At the conclusion of CAPP's first three-year funding cycle (1984-87), the twenty first-cycle curriculum projects were asked to identify unanticipated outcomes.

As reported by Dennis Galligani in Effective Relationships for School/College Partnerships (1987:44-45), six outcomes were experienced by a majority of the projects:

a. A majority of the projects indicated that they did not anticipate the extent to which postsecondary faculty would become aware of the curricular and instructional strategies utilized by the junior high school and the high school faculty. Postsecondary faculty were appreciative of the extent to which teachers are truly committed to enhancing the educational outcomes of their students. The efforts reinforced the concept of teacher as leader within the school. As one project stated "there was a true appreciation for each other as an outcome of these efforts."

b. Another primary unintended outcome was the degree to which information was shared by CAPP-involved faculty with other faculty not directly involved in the project. Teachers who were not involved directly in the partnership project were influenced by those who were involved. Additionally, most projects indicated that more teachers than expected were involved.

c. Both postsecondary and secondary faculty and administrators indicated that an extremely positive outcome was the good friendships and professional respect which develop among colleagues. The partnership efforts truly led to a breakdown of the "we/they" mode of thinking about individuals in different educational segments.

d. Another unintended outcome was the degree to which collaboration occurred between project faculty and student services in place at the schools. It was reported that a number of student services which were initiated to support the partnership effort, led to

institutionalization of those efforts on an ongoing basis.

e. Another strong outcome was the degree to which these projects led to curricular enhancement in other subject areas than had originally been planned. Individuals who became involved in one area of curriculum enhancement used what was learned and transferred it to other areas. This was also seen as materials, which were developed for specific projects, found their way into other curricula by involved faculty.

f. The final primary outcome was the extent to which underrepresented students were, in fact, influenced. It was the observation of many that underrepresented students were much more willing to discuss their ability to "go to college." There was the perception that, indeed, the students' self-image had been improved, and, on the other side of the coin, faculty perceptions of underrepresentd students had been positively affected.

Last fall two experts on partnership programs across the nation observed the CAPP program (Paula Bagasen of the College Board and Lewis Albert of the American Association of Higher Education). They concluded that some of the most significant impacts of CAPP projects have been achieved through their unexpected outcomes. This summary of unanticipated outcomes certainly verifies their observation.

Appendix C

California Student Opportunity and Access Program

STATE OF CALIFORNIA GEORGE DEUKMEJIAN, Governor

CALIFORNIA STUDENT AID COMMISSION
P.O. BOX 942845 (916) 322-6237
SACRAMENTO, CA 94245-0845

July 27, 1989

TO: Dr. Penny Edgert, Postsecondary Education Specialist
California Postsecondary Education Commission

FROM: Dan Parker, Statewide Coordinator
California Student Opportunity and Access Program

SUBJECT: 1989 Preliminary Report for Intersegmental Student Preparation Programs

This is the first in what is anticipated to be a series of reports to CPEC from the Student Aid Commission on the CAL-SOAP student outreach program. It might be best to first outline what is not included in this initial response. Because CPEC is the agency responsible for the CAL-SOAP program's most recent comprehensive review (see "Evaluation of the California Student Opportunity and Access Program, Report 87-43, December 1987), much of the information in that report vis-a-vis program history, scope, effectiveness, etc. is not repeated here. Where appropriate, information from that report is used as part of individual charts.

Data from CBEDS about the school population served by CAL-SOAP has been requested from the Department of Education and should be available within two to three weeks. However, it should be noted that CBEDS only covers the public high school population and therefore will exclude that portion of the CAL-SOAP service sector that attends private high schools, public junior high or middle schools, and community colleges. Nonetheless, the CBEDS information is likely to be helpful in understanding the population being served by the CAL-SOAP program and therefore will be sent to CPEC when available.

The author of this report has employed his professional judgement in compiling the programwide statistics included in the following tables and charts. This was necessitated by differing report formats submitted from the field. In addition, program directors have reported no comprehensive or coordinated collection of data on either immigrant status or of language spoken at home for the CAL-SOAP service population. However, there is some language information available and it will be included with the caveat that it should not be viewed as representative of the program as a whole.

With the above noted exceptions and conditions, the following responds for the CAL-SOAP program on a point-by-point basis to CPEC's May 23 memorandum.

• Criteria for selection as a program participant:

By law (Chapter 1115, statutes of 1988), CAL-SOAP projects must serve "low-income and ethnic minority" secondary school students (grades seven through twelve), and, under certain circumstances, students attending community colleges.

The term "ethnic minorities" applies to members of those groups determined to be historically underrepresented as undergraduates attending higher education in California i.e. African American, Hispanic/Latino, Native American, and Filipinos. In identifying low-income students, CAL-SOAP projects may use the scale revised annually for the California Student Aid Commission's Cal Grant B program, (current ceiling set at $26,049 for a family of four) or family participation in the AFDC or school lunch programs. In all instances involving low-income qualifications, CAL-SOAP project directors must certify that students meet the appropriate standards. Student who meet the low-income criteria may participate regardless of ethnicity/race.

Students do not have a set grade point average to be eligible for CAL-SOAP participation. However, counselors are urged to refer students who meet the ethnic and/or income criteria and who have potential for success in higher education. Referrals also come from student clubs, organizations and other groups found at the secondary level. Students must complete a CAL-SOAP enrollment form and provide parental consent before receiving intensive services from the program.

- **Although differing somewhat from program to program, the CAL-SOAP definition of "served" includes the following:**

A. Individual or small group tutoring -- after school, in-class or on a pull-out basis. A student may participate anywhere from once to approximately 60 times.

B. Individual or small group advisement -- involves meetings of 15 to 30 minutes in duration with a postsecondary student advisor regarding postsecondary preparation, admissions requirements or application procedures; financial aid availability or application procedures; and/or career related information.

C. Workshops -- a large group (five or more students) activities devoted to advisement issues i.e. subject preparation/requirements for admission or financial aid awareness/ assistance; or academic support services such as study skills.

D. Campus/Work Site Tours -- organized group visits to college/university campuses or professional work sites.

E. Career Services

1. Workshops -- professionals from a variety of careers who can be seen as role models speak to students regarding employment in those fields.

2. Career Assessment -- administration and interpretation of the ACT career planning program (CPP) which provides an assessment of students' interests, experience and aptitude in potential career areas.

F. Referrals -- in person referrals to college representatives or referral by mail of the student to a particular college representative/recruiter.

G. Summer Residential Program -- a multi-day intensive program of academic, cultural, recreational, skill building and self awareness activities which is housed on one of the CAL-SOAP consortium's residential campuses.

In most instances, a CAL-SOAP student is considered as served if he or she participates in at least two individual advisement or academic support sessions.

- **The following provides a breakdown of CAL-SOAP participants by grade level:**

Grade Level of Students Served by the CAL-SOAP Consortia

Grade Level	1987/88	1986/87*
Intermediate (7th and 8th)	22%	13%
High School (9th, 10th, 11th and 12th grades)	76	81
Community College	2	6
Total Students	26,705	23,665

*Source: CPEC Report 87-43

- **The following chart provides the most recent college-going rates for 1987 graduating seniors served by CAL-SOAP consortia:**

CALIFORNIA AND CAL-SOAP
FALL COLLEGE-GOING RATES
1987

Segment	Statewide* (N=262,921)	East Bay (N=167)	Solano (N=300)	Santa Barbara (N=130)	San Diego (N=2983)	South Coast (N=577)	Inland Empire	Total CAL-SOAP N=4157
University of California	7.7%	27.1%	13.0%	1.5%	10.3%	16.0%	NA	11.6%
California State University	10.7	12.9	11.0	.8	8.9	19.0	NA	10.4
California Community Colleges	34.4	15.7	31.0	42.0	38.8	25.0	NA	35.5
Independent Institutions	3.4	12.8	4.0	6.9	1.2	10.0	NA	3.3
Total Collegiate	56.2%	68.5%	59.0%	51.2%	59.2%	70.0%	NA	60.5%

*Source: California Postsecondary Education Commission 1987 Update "California College Going Rates"

•This chart shows a comparison between college-going rates for the two most recent years:

CALIFORNIA AND CAL-SOAP
FALL COLLEGE-GOING RATES

Segment	1987		1986	
	Statewide*	CAL-SOAP	Statewide*	CAL-SOAP
	(N=262,921)	N=4157	(N=225,770)	N=4086
University of California	7.7%	11.6%	7.9%	14.6%
California State University	10.7	10.4	10.2	14.8
California Community Colleges	34.4	35.5	36.3	34.5
Independent Institutions	3.4	3.3	NA	NA
Total Collegiate	56.2%	60.5%	54.4%	63.9%

*Source: California Postsecondary Education Commission's "California College Going Rates"

- **The racial-ethnic background and gender of CAL-SOAP participants can be seen in the following breakdown:**

Students Served by CAL-SOAP Consortia by Ethnic/Racial Group and by Gender

Ethnic/Racial Group	1987-88 Total Program	1986-87 Total Program*
Native American	4%	3.4%
Asian	16	19.3
African American	30	29.6
Hispanic/Latino	40	38.2
Caucasian	8	7.6
Other[1]	2	2.0
Male	44%	NA
Female	56	NA
Total Number of Students	26,705	23,665

*Source: CPEC Report 87-43
[1]Other includes Pacific Islanders and those who have identified more than one racial/ethnic background

- **CAL-SOAP students socio-economic background can best be displayed as follows:**

Students Served by CAL-SOAP Consortia by Family Income Level

Family Income Levels	Total 1987-88 Program	Total 1986-87 Program*
Less than $9,999	12%	16.9%
$10,000 - 13,999	10	13.6
$14,000 - 17,999	10	8.0
$18,000 - 22,999	12	10.0
$23,000 - 27,999	14	10.3
$28,000 - 32,999	10	8.9
Over $30,000	14	12.1
Unreported	18	20.1
Total Number of Students	26,705	23,665

*Source: CPEC Report 87-43

- **Immigrant status of CAL-SOAP participants is not collected:**

In 1982 the U.S. Supreme Court ruled in Plyler v. Doe that illegal aliens have a 14th Amendment right to public education. In light of that case, some have warned (see John Willshire Carrera, "Immigrant Students: Their Legal Right of Access to Public Schools") that school administrators may not legally ask students questions about or require documentation of their immigration status, and that school officials must not release information obtained from immigrant students to outside agencies.

•Information as to language spoken at home is very difficult to collect on a comprehensive basis:

CAL-SOAP projects do not collect these data on a uniform basis at this time. However, some information is available which indicates that at least 10 percent of the CAL-SOAP participants are LEP students and that the primary language spoken in the home for CAL-SOAP students is as follows:

English	50 to 70 %
Spanish	30 to 40 %
Tagalog	5 %
Other*	5 %

*(Including Chinese, Thai, Urdu, Somoan, French, Punajabi)

•Factors explaining program results; seredipitous outcomes:

There is nothing particularly mysterious about the fact that the CAL-SOAP program can report college-going rates which are higher than those locally or statewide. The simple answer is that CAL-SOAP projects are effective in preparing participants for postsecondary success. The balance of tutorial assistance, academic skill-building sessions, and information services appears to be the correct blend needed to assist those traditionally underrepresented in postsecondary education.

One is tempted to draw the rather elementary conclusion that if students are told they are college bound, and then provided with the information and academic skills necessary to succeed on a postsecondary level, those students do in fact enroll in larger than expected numbers.

The fact that the program relies heavily on student tutors and peer advisors is a plus in two ways. First, students receiving the CAL-SOAP services can identify with and respond to their "peers" in a manner that helps open them up to academic success. Secondly, many of the CAL-SOAP peer counselors have found their calling in teaching, financial aid or other areas of higher education in great part as a result of their positive experiences with the program. The latter is certainly a very important serendipitous outcome of the CAL-SOAP effort.

Other unintended positive results of the program include: parents of CAL-SOAP students returning to school after contact with program personnel; and the receipt of important information about college access and financial aid opportunities by students who are part of the larger school population.

- **Although not specifically requested, the following chart provides the most recent financial support information for the CAL-SOAP program.**

CALIFORNIA STUDENT OPPORTUNITY AND ACCESS PROGRAM
PROPOSED 1989-90 FUNDING LEVELS

Project	No. of students to be served	State Grant	Matching Resources		Ratio* State/Local
			UC Systemwide	Other local funds	
Solano/SUCCESS	3,000	$86,555	$21,107	$110,737	1:1.5
East Bay	4,100	92,020	8,781	99,795	1:1.2
South Coast/ Whittier	5,100	84,475	11,415	175,233	1:2.2
Santa Barbara	4,600	79,230	5,211	124,690	1:1.6
Inland Empire/ San Bernardino	3,900	76,040	3,998	166,696	1:2.2
San Diego	8,500	158,680	26,343	222,575	1:1.6
TOTAL	29,200	$577,000	$76,855	$899,726	1:1.7

*Includes UC Systemwide funds as matching resource.

This shows program costs to be less than $20 per student for state funds and about $31 per student when local matching resources and state funds are combined. It should be kept in mind that these figures cover a wide variety of student services and that some components i.e. intensive tutorial sessions cost considerably more than the average per student represented above.

Appendix D

College Admissions Test Preparation Program

CALIFORNIA STATE DEPARTMENT OF EDUCATION
721 Capitol Mall; P.O. Box 944272
Sacramento, CA 94244-2720

Bill Honig
Superintendent
of Public Instruction

July 19, 1989

TO: Penny Edgert
California Postsecondary Education Commission

FROM: Barbara Brandes, Administrator
Office of Special Programs

SUBJECT: Evaluation Reports for Tanner Projects and UCO

Please find enclosed evaluation information for your report on Intersegmental Student Preparation Programs. We have attempted to address the elements requested in your memo of May 23. We are, however, interested in providing additional data and analysis which will be forwarded as soon as possible.

As you will see, the information available for UCO includes school level data but does not include information about program participants. There has never been any systematic data collection on UCO programs. We are currently collecting such data however, and our current year evaluation should provide more useful information for next year.

We hope that you will find the information useful. Please let us know if there is other specific data which we can provide.

Evaluation
College Admission Test Preparation Pilot Projects
1987-88

Background of the College Admission Test Preparation Pilot Projects

Legislation authorizing the College Admission Test Preparation Pilot Projects was introduced in response to a California Postsecondary Education Commission's report (1983). The study found that more students from groups traditionally underrepresented in postsecondary education could be considered for college and university admission first, if they completed the a-f requirements, second, if they completed the courses with a higher level of performance, and third, if they took the required college admissions tests.

In response to these findings, Assemblywoman Sally Tanner authored AB 2321 (Chapter 1210, Statutes of 1985) which established the College Admission Test Preparation Pilot Project. The legislation intends to increase the number of students from economically disadvantaged and ethnic minority groups in four year colleges and universities by increasing college admission test taking, admission test performance, and college aspirations among these students.

Significant local planning preceeded the application process. The Pilot Projects, distinguished by their diversity, were chosen from more than 40 applications. Altogether, Pilot Projects can be found in 8 counties. Not only are projects located in urban, suburban, and rural districts, but they also have a variety of sponsors: a consortium of districts, a county office, individual districts with and without feeder schools, and individual schools, including a court school. Two projects serve only Hispanic students, several operate in majority minority schools, while the remainder serve ethnic minority and poor students in predominantly white middle class schools. Some projects are located in secondary schools with more than 1500 students while others are located in schools with fewer than 1000 students.

The last of three years of funding for the Pilot Projects was provided for the 1988-89 school year. If funding is not continued, some projects may continue with local funding under the aegis of University and College Opportunities (UCO) which authorizes local initiatives to improve access to

postsecondary education for underrepresented minority students. Due to the expected demise of separate funding for the Pilot Project, data collection and evaluation of the continuing projects will be subsumed under UCO in subsequent years.

Organization of the Evaluation Report

This report contains five sections corresponding to the outline in the Commission's memo of May 23, 1989. Section 1 summarizes population data for pilot program schools. Section 2 describes service options and summarizes data about participants. Section 3 reports baseline data for the performance measures in the Study Prospectus. Section 4 discusses reasons for reported results.

A copy of "Second Year Evaluation of Pilot Projects Funded by AB 2321 (Chapter 1210, Statutes of 1985): Summary Report," is attached. That document is referenced in this report as Summary Report.

Section 1: School Population

As indicated, Pilot Projects are located in a variety of settings. As a result, school population summary data imply a greater degree of similarity among the settings than actually exists. Summary data have been provided in Figures; school level data may be found in tables with corresponding numbers in the Appendix.

Figure 1: Ethnic Distribution in Secondary Schools with Pilot Projects and in All California High Schools: 1987-88

	Project Schools		California	
	N	%	N	%
American Indian	223	0.6	12,115	0.9
Hispanic	4,267	33.1	343,380	26.0
Black	11,388	12.4	117,181	8.9
Other	18,578	53.9	845,718	64.1
Total	34,456	100%	1,318,394	100%

Figure 2: Ethnic Distribution of High School Graduates in Project Schools and In All California High Schools: Spring 1988 Graduates

	Project Schools		California	
	N	%	N	%
American Indian	44	0.6	1872	0.8
Hispanic	1975	26.9	49,040	19.7
Black	912	12.4	19,444	7.8
Other	4,422	60.1	79,162	71.8
Total	7,353	100%	249,518	100%

Figure 3: Ethnic Distribution of High School Graduates Meeting a-f Requirements in Project Schools : 1987-88

	Project Schools	
	N	%
American Indian	9	0.5
Hispanic	392	20.0
Black	167	8.5
Other	1,391	71.0
Total	1,959	100%

Figure 4: Ethnic Distribution of High School Drop Outs (10th, 11th, and 12th grades) in Project Schools and All California Schools: 1987-88

	Project Schools		California	
	N	%	N	%
American Indian	7	0.4	762	1.09
Hispanic	783	45.9	28,746	37.1
Black	299	17.5	10850	14.0
Other	616	36.1	37,225	48.0
Total	1,705	100%	77,583	100%

Figure 5: Ethnic Distribution of Students Enrolled in Advanced Math and Science Courses in Project Schools: 1988-89

	Project Schools	
	N	%
American Indian	30	0.5
Hispanic	1,239	21.2
Black	625	10.7
Other	5,177	88.4
Total	7,071	100%

Section II: Project Participants and Services Provided

This section describes the population of program participants, and services provided them. Selection criteria, the description of services, and information describing the participants, including the grade level, racial-ethnic background, gender, and socioeconomic background are summarized here. Once again, school level data which accurately reflects project variety can be found in tables in the Summary Report and the Appendix. Immigrant status and home language were not available for 1987-88 student participants, but will be reported for 1988-89 participants.

A. Summary of Selection Criteria

Pilot programs were designed to identify and assist students in the middle range of achievement. Each program's selection criteria are shown in Summary Report Table 3. Selection criteria may be grouped in categories as follows:

Figure 6: Pilot Projects: Selection Criteria: 1987-88

Criterion	Number	Percent
Achievement	9	100%
Teacher recommendation	6	66%
Student self-recommendation	4	44%
Not otherwise served	3	33%
Behavior/Attitude	2	22%
Student interview	1	11%

B. Summary of Services Provided

In line with the Pilot Projects' emphasis on selecting interventions to meet local needs, services vary among programs. Test preparation, support services, and individual tutoring are most frequently offered.

Preparation for college admission tests is a major focus of the pilot projects. All but one of the Pilot Projects provide specific training in test taking skills, including time management and strategies for taking college admissions tests. One program refers students to classes offered by local community colleges.

The second goal is to increase the number of underrepresented students who complete the a-f requirements at an acceptable level for college admission. Three programs directly teach study skills, and two established a common core curriculum for all project participants. Students in the other programs attend a-f classes, but receive additional academic support in either tutorials or new classes established for participants.

The third major focus is support services, which include career counseling, college visits, individual guidance and mentoring, and leadership training. As with the other components, the level of intensity varies from project to project (See Summary Report Table 2 for details.)

The fourth focus is parent education. Students rely on their parents for information (George 1988) and support. Pilot Projects attempt to ensure that parents are fully informed about the benefits of attending college, the variety of opportunities available, application procedures, and availability of financial aid.

Figure 7: Pilot Projects: Summary of Services Provided: 1987-88

Service	Number	Percent
Test Preparation	8	89%
College preparation classes		
Study skills	3	33%
Common core curriculum	2	22%
New classes	2	22%
Support Services		
College visits	2	22%
Individual tutoring	6	67%
Career counseling	3	33%
Monitoring	3	33%
Leadership training	2	22%
College collaboration	1	11%
Parent education	4	44%

C. Descriptive information about participants

Individual data are available for 1951 students who participated in Pilot Projects in 1987-88, the second year of operation. An additional 1000 students, for whom data were not collected, received services.[1]

[1]These include students in feeder programs, and students in San Diego County schools which joined the program after the first year of operation.

Socioeconomic status is recorded only for white program participants who are eligible if economically disadvantaged. That designation is made by program directors based on evidence of low income or eligibility to receive free or reduced price lunch. Thirty-six percent (36%) of white participants were identified low income or economically disadvantaged. Five percent of participants were designated limited English proficient.

Figure 8: Pilot Projects: Summary of Project Participants by Grade Level, Ethnicity, and Sex: 1987-88

Grade level	Number	Percent
Freshmen	429	22%
Sophomores	683	35%
Juniors	605	31%
Seniors	234	12%
Total	1951	100%

Ethnicity	Number	Percent
American Indian	20	1%
Asian	156	8%
Pacific Islander	19	<1%
Filipino	137	7%
Hispanic	995	51%
Black	390	20%
White	234	12%
Total	1951	100%

Sex	Number	Percent
Male	839	43%
Female	1112	57%
Total	1951	100%

Section III: Evaluative Information

The study prospectus lists three performance objectives for College Admission Test Preparation Pilot Projects:

- To increase the number of students from underrepresented groups who take admission tests[1]
- To improve level of performance on college admission tests
- To increase the number of students from underrepresented groups who enroll in public postsecondary education

These objectives, each of which will be considered in turn, are to be evaluated with the following measures:

- Changes in college admission test taking in participating schools
- Changes in college admission test performance in participating schools
- Change in student motivation toward college preparation
- Changes in a-f course enrollment
- Change in college eligibility rates

College Admission Test Taking

Six projects, two more than in the prior year, enrolled seniors in 1987-88 giving a total of 223 senior participants. Of the 223 seniors, 56% took the SAT and 5% took the ACT.

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[1]Statewide data for Scholastic Aptitude Test (SAT) are reported. Statewide data for American College Test (ACT) were ??unavailable?? Approximately 5% of program participants took the ACT in 1987-88, and 56% who took the SAT.

Figure 9: College Admission Test Participation, Project Schools 1987-88

	Project Schools	
	N	%
American Indian	24	0.9
Hispanic	465	17.9
Black	266	10.2
Other	1845	71.0
Total	2600	100%

Figure 10: College Admission Test Performance, Project Participants 1987-88

	Project Schools
Mean Scores	
Math	428
Verbal	358
% Scoring at least 450 on Verbal	17.5
% Scoring at least 500 on Math	24.2

Student Motivation

Project sophomores (N=335) and sophomores not in pilot projects (N=2949) completed an opinion survey. Project students were more likely than sophomores in the statewide sample to be Black or Hispanic, and to be from families in which the more educated parent was less likely to have attended college. Nevertheless, compared with the statewide sample, a larger proportion of project students reported their parents expected them to graduate from college or attend graduate school (77% for project students compared with 66% of statewide sample respondents.) Seventy-six percent (76%) of project students, compared to 50% of sample respondents, planned to attend a four year college.

Fifty percent (50%) of project sophomores were enrolled in geometry compared to 36% of sample sophomores, and 65% compared to 56% were enrolled in biology. More project students than statewide sample students were, therefore, on track to complete a-f requirements.

More project students perceived their teachers (41%) and parents (47%) to be helpful sources of information for course enrollment decisions than did statewide sample students (23% and 37%). Project students were more likely than their peers in the statewide survey to display motivation to college.

A-F Course Enrollment

Seniors

Of the seniors, 76% were reported on track to complete the a-f college preparatory sequence by graduation, compared to 87% of the prior year's participants. This compares with a-f completion rates in project schools as presented in Figure 3, above.

Freshmen, Sophomores, Juniors

In 1987-88, high proportions of project students in grades 9, 10, and 11 were on track to complete a-f course by graduation, 98%, 70%, and 83%, respectively. Increasing proportions also took the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT).

Figure 11: Project Students: a-f Course Enrollment and Performance by Grade Level, 1987-88

	Grade 9 N=437	Grade 10 N=686	Grade 11 N=595	Grade 12 N=223
Percent enrolled in a-f courses	97.5%	70.4%	82.9%	76.2%
Grade Point Average				
Percent above 3.1	26.7%	28.0%	30.0%	39.4%
Percent above 3.3	19.8%	18.4%	21.2%	23.6%

Figure 12: Project Students: a-f Graduates, 1987-88

	Project Schools N	Project Schools %	California %
Percent completing a-f courses			
1987-88	170	76.2%	28.2%
Percent completing a-f courses			
1986-87	238	87.0%	

College Eligibility

The percentage of Pilot Project participants estimated to be eligible for admission to California State University increased slightly between the first and second year of operation. Eligibility, estimated from individual SAT (or ACT) scores and GPAs in the data base, may be regarded as liberal since overall GPA was reported, not GPA in a-f courses only.

Figure13: College Eligibility for Project Participants: 1986-87, 1987-88

	1987-88	1986-87
CSU Admission Criteria		
a-f courses and GPA above 3.1	42%	39%
a-f courses plus qualifying GPA and SAT scores	10%	12%
Percent not qualifying	48%	49%

IV. Analysis of Reported Results

Pilot projects were intended to serve neither academic stars nor gifted students; rather the intended recipients were students in the middle range of achievement who would otherwise not be likely to consider attending college. Nevertheless, as has been shown, project participants display a high degree of motivation to attend college and demonstrate considerable success in their studies.

Although the Pilot Project's contributions cannot be definitively established with existing data, students and program directors report a high degree of satisfaction with many program elements. Among these are personal attention, study skills training, mutual support, college trips, staff access to information and conferences, increased monitoring of course enrollment, career counseling, and parent involvement. A preliminary analysis of the 1988-89 project participant survey suggests that a large proportion would like even more personal attention from their teachers. Among the variety of outcomes, Pilot Projects have contributed to increased communication among teachers about curriculum improvement, to joint school-community fundraising for field trips to southern Black colleges, to wider availability of instruction in study skills, and to summer experiences on California college campuses.

Several other factors contribute to results. Close monitoring of schedules is vital to ensure a-f enrollment, because counselors are sometimes reluctant to schedule students into classes they regard as too difficult for them. Tutoring support for college preparatory classes is thus extremely important both in fact and to support placement decisions. As another example, although pilot projects focus on meeting student needs rather than schoolwide reform, project directors report that teachers have become increasingly involved in curriculum changes intended to improve all students' success on college admissions tests.

There are various reasons for what appears to be a low test taking rate, given Pilot Projects' emphasis on admissions test preparation. Some students took the test as juniors and did not repeat it, while some qualified for college on the basis of GPA alone, and did not need to take admissions tests. Others took the test too late in the Spring for their scores to be included in the data base. Yet others planned to attend colleges which do not require admissions tests, or did not plan to attend college.

The personal connection between teachers and students is an important element in the Pilot Projects. Some projects extend the personal element further, into career counseling and college visits. Career counseling gives students access to information about careers they may never have considered. College visits emphasize meeting and talking with student role models. Parental involvement is also an important component of Tanner Projects. Parents are provided opportunities for learning about the intricacies of the college application and financial aid processes, so that they can provide information and support to their students.

It is into this personal context that project directors build instruction, tutoring, and direct teaching of test taking strategies. Students' enrollment in a-f classes is ensured, homework completion is closely monitored, tutoring is provided, and learning extended. Curriculum is extended in response to student needs. One project has developed a core curriculum for project students, another has instituted new classes (open to other students as well) to increase vocabulary skills. Faculty in another school has begun to upgrade the entire curriculum in order to prepare students more effectively for college admissions tests. Although Pilot Projects primarily benefit the student participants, the benefits have extended to entire schools as well.

TABLE 1
ETHNIC DISTRIBUTION IN SECONDARY SCHOOLS
WITH PILOT PROJECTS
AND PERCENTAGE AFDC

	TOTAL ENROLLMENT	AMERICAN INDIAN %	BLACK %	HISPANIC %	OTHER %	AFDC %
New Haven Unified						
James Logan High	3310	0.2	12.3	21.4	66.1	8.6
Central						
Sierra High	710	5.8	0.7	4.4	89.2	7.9
Washington High	815	0.9	20.5	45.0	33.6	36.2
Central High	748	0.9	2.3	35.8	61.0	16.7
Kerman High	552	2.5	0.2	47.1	50.2	18.2
Long Beach Unified						
Jordan Sr High	2158	0.5	25.9	19.3	54.3	22.7
Anaheim Union High						
Anaheim High	2122	0.4	1.6	58.3	39.7	6.4
San Diego County						
Clairemont Sr High	1176	0.5	6.5	41.2	51.8	15.7
Lincoln Sr High	1029	0.1	68.7	15.7	15.5	20.9
Madison Sr High	1980	0.5	15.4	13.5	70.6	5.6
Point Loma Sr High	2079	0.1	9.2	26.7	64.0	6.1
San Diego Sr High	1439	0.6	11.3	43.6	44.5	16.7
Southwest Sr High	2064	0.3	3.7	61.6	34.3	21.8
Sweetwater Sr High	1823	0.5	5.9	59.5	34.0	23.3
Oceanside High	1518	1.1	18.1	33.5	47.4	15.5
San Francisco Unified						
Mission Hi	2011	0.6	12.2	39.8	47.3	24.6
Santa Barbara High						
San Marcos Sr Hi	1698	0.4	2.4	26.6	70.6	4.4
Santa Barbara Sr	2194	0.6	3.6	33.4	62.4	4.9
Gilroy Unified						
Gilroy High	2086	0.6	1.4	44.4	53.5	7.0
Vallejo City Unified						
Hogan Sr Hi	1256	0.3	23.6	6.5	69.5	7.6
Vallejo Sr Hi	1688	1.1	28.7	8.5	61.7	13.4
SUM	34456	223	4267	11388	18578	
PERCENT		0.6	12.4	33.1	53.9	

TABLE 2
ETHNIC DISTRIBUTION OF HIGH SCHOOL GRADUATES
IN PROJECT SCHOOLS: 1987-88

	TOTAL	AMERICAN INDIAN %	HISPANIC %	BLACK %	OTHER %
New Haven Unified					
James Logan High	645	0.00	19.53	12.87	67.60
Fresno					
Sierra High	182	6.04	7.69	1.10	85.16
Washington High	151	0.00	48.34	20.53	31.13
Central High	160	0.00	33.75	2.50	63.75
Kerman High	107	0.00	38.32	0.00	61.68
Long Beach Unified					
Jordan Sr High	625	0.64	14.40	32.16	52.80
Anaheim Union Hi					
Anaheim High	336	0.30	49.11	1.49	49.11
San Diego County					
Clairemont Sr Hi	225	0.00	35.56	6.67	57.78
Lincoln Sr. Hi	138	0.00	13.77	67.39	18.84
Madison Sr Hi	407	0.25	11.79	12.78	75.18
Point Loma Sr Hi	483	0.00	18.63	5.80	75.57
San Diego Sr Hi	326	0.61	36.50	9.20	53.68
Southwest Sr Hi	398	0.25	55.78	3.52	40.45
Sweetwater Sr Hi	438	0.91	53.88	6.16	39.04
Oceanside Hi	254	1.57	25.59	19.69	53.15
San Francisco Unif					
Mission Hi	328	0.30	36.28	8.8[illegible]	54.57
Santa Barbara Hi					
San Marcos Sr Hi	436	0.46	20.87	3.67	75.00
Santa Barbara Sr	502	0.60	25.90	3.39	70.12
Gilroy Unified					
Gilroy High	374	1.07	30.75	0.80	67.38
Vallejo City Unified					
Hogan Sr Hi	369	0.27	8.94	21.14	69.65
Vallejo Sr Hi	469	1.07	9.59	28.57	60.77
SUM	7353	44	1975	912	
PERCENT		0.60	26.86	12.40	60.14

TABLE 3
ETHNIC DISTRIBUTION OF HIGH SCHOOL GRADUATES
IN PROJECT SCHOOLS
MEETING a-f REQUIREMENTS

	TOTAL	AMERICAN INDIAN	HISPANIC	BLACK	OTHER
New Haven Unified					
James Logan High	299	0.00%	15.72%	9.70%	74.58%
Fresno					
Sierra High	47	6.38%	8.51%	0.00%	85.11%
Washington High	20	0.00%	25.00%	10.00%	65.00%
Central High	10	0.00%	40.00%	0.00%	60.00%
Kerman High	52	0.00%	23.08%	0.00%	76.92%
Long Beach Unified					
Jordan Sr High	127	0.00%	8.66%	23.62%	67.72%
Anaheim Union Hi					
Anaheim High	69	1.45%	18.84%	2.90%	76.81%
San Diego County					
Clairemont Sr Hi	77	0.00%	41.56%	5.19%	53.25%
Lincoln Sr. Hi	21	0.00%	4.76%	66.67%	28.57%
Madison Sr Hi	128	0.00%	14.06%	16.41%	69.53%
Point Loma Sr Hi	190	0.00%	21.58%	7.37%	71.05%
San Diego Sr Hi	91	0.00%	35.16%	10.99%	53.85%
Southwest Sr Hi	85	0.00%	20.00%	3.53%	76.47%
Sweetwater Sr Hi	92	1.09%	42.39%	4.35%	52.17%
Oceanside Hi	106	0.94%	23.58%	16.98%	58.49%
San Francisco Unified					
Mission Hi	55	0.00%	14.55%	3.64%	81.82%
Santa Barbara Hi					
San Marcos Sr Hi	131	0.00%	19.85%	2.29%	77.86%
Santa Barbara Sr	173	0.58%	24.86%	2.31%	72.25%
Gilroy Unified					
Gilroy High	66	0.00%	13.64%	0.00%	86.36%
Vallejo City Unified					
Hogan Sr Hi	68	1.47%	4.41%	4.41%	89.71%
Vallejo Sr Hi	52	1.92%	3.85%	7.69%	86.54%
SUM	1959	9	392	167	1391
PERCENT		0.46%	20.01%	8.52%	71.01%

TABLE 4
ETHNIC DISTRIBUTION OF HIGH SCHOOL DROP OUTS
(10TH, 11TH, 12TH GRADERS)
IN PROJECT SCHOOLS
1987-88

	TOTAL	AMERICAN INDIAN %	HISPANIC %	BLACK%	OTHER %
New Haven Unified					
James Logan High	75	1.33%	26.67%	14.67%	57.33%
Fresno					
Sierra High					
Washington High	30		50.00%	20.00%	30.00%
Central High	2		50.00%		50.00%
Kerman High					
Long Beach Unified					
Jordan Sr High	410		26.83%	28.54%	44.63%
Anaheim Union Hi					
Anaheim High	86		70.93%	2.33%	26.74%
San Diego County					
Clairemont Sr Hi	65	1.54%	50.77%	4.62%	43.08%
Lincoln Sr. Hi	119		29.41%	62.18%	8.40%
Madison Sr Hi	39		25.64%	10.26%	64.10%
Point Loma Sr Hi	72		23.61%	6.94%	69.44%
San Diego Sr Hi	194		68.56%	12.89%	18.56%
Southwest Sr Hi	121		75.21%	4.13%	20.66%
Sweetwater Sr Hi	184	1.09%	63.59%	5.98%	29.35%
Oceanside Hi	52	1.92%	36.54%	13.46%	48.08%
San Francisco Unified					
Mission Hi	104		50.96%	14.42%	34.62%
Santa Barbara Hi					
San Marcos Sr Hi	23	0.0%	78.3%	0.0%	21.7%
Santa Barbara Sr	55	0.0%	54.5%	5.5%	40.0%
Gilroy Unified					
Gilroy High	24	4.17%	45.83%		50.00%
Vallejo City Unified					
Hogan Sr Hi	39		17.95%	20.51%	61.54%
Vallejo Sr Hi	11	9.09%	18.18%	27.27%	45.45%
SUM	1705	7	783	299	616
PERCENT		0.4%	45.9%	17.5%	36.1%

TABLE 5
ETHNIC DISTRIBUTION OF STUDENTS ENROLLED
IN ADVANCED MATH AND SCIENCE COURSES
IN PROJECT SCHOOLS

	TOTAL	AMERICAN INDIAN	HISPANIC	BLACK	OTHER
New Haven Unified					
James Logan High	682	0.1%	9.8%	6.0%	84.0%
Fresno					
Sierra High	148	2.0%	2.7%	0.0%	95.3%
Washington High	175	1.1%	38.3%	9.7%	50.9%
Central High	86	0.0%	24.4%	3.5%	72.1%
Kerman High	82	0.0%	28.0%	0.0%	72.0%
Long Beach Unified					
Jordan Sr High	340	0.0%	13.2%	20.9%	65.9%
Anaheim Union Hi					
Anaheim High	275	0.0%	41.5%	0.4%	58.2%
San Diego County					
Clairemont Sr Hi	234	0.4%	24.8%	2.1%	72.6%
Lincoln Sr. Hi	345	0.3%	9.3%	65.2%	25.2%
Madison Sr Hi	483	0.0%	6.8%	6.8%	86.3%
Point Loma Sr Hi	527	0.0%	13.1%	5.3%	81.6%
San Diego Sr Hi	555	0.5%	29.4%	8.3%	61.8%
Southwest Sr Hi	322	0.0%	31.7%	3.7%	64.6%
Sweetwater Sr Hi	347	0.6%	45.0%	3.2%	51.3%
Oceanside Hi	175	2.3%	25.7%	22.9%	49.1%
San Francisco Unified					
Mission Hi	227	0.4%	8.8%	2.2%	88.5%
Santa Barbara Hi					
San Marcos Sr Hi	477	0.00%	8.39%	0.42%	91.19%
Santa Barbara Sr	740	0.00%	13.78%	2.43%	83.78%
Gilroy Unified					
Gilroy High	233	3.0%	21.0%	1.3%	74.7%
Vallejo City Unified					
Hogan Sr Hi	388	0.5%	5.9%	9.8%	83.8%
Vallejo Sr Hi	230	1.3%	2.6%	11.3%	84.8%
SUM	7071	30	1239	625	5177
PERCENT		0.51%	21.17%	10.68%	88.44%

Appendix E

College Readiness Program

State of California

Memorandum

Trustees of The California State University

To: Penny Edgert
Postsecondary Education Specialist

Date: July 13, 1989

From: Stephanie McGraw, Dean
Academic Affairs, Educational Support

Subject: Preliminary report - College Readiness Program 1987-88

Attached is the first progress report of the College Readiness Program as requested in your May 23, 1989 memorandum and a copy of the Evaluation Report for 1987-88.

SAM:BY:ab
Attachment

cc: Barbara Young

The College Readiness Program Report
for CPEC's 1989
Preliminary Report on Intersegmental
Student Preparation Programs

Program Title:

College Readiness Program (CRP)

Partner Institutions:

The California State Department of Education
The California State University

The program is jointly administered by the Trustees of the California State University in cooperation with the California State Department of Education and 21 middle schools.

Program Components

The College Readiness Program employs college students serving as educational interns to work with small groups of students to raise their interest level and competence in the disciplines of math and English to enable these students to qualify for college preparatory math and English.

Additionally, the CRP seeks to increase college preparedness by increasing student motivation and providing parents with the information needed to guide students' course selection and support their study habits. College Readiness Program parents are provided with additional opportunities for significant involvement in, and communication about, their children's schooling.

The Program is a partnership, uniting middle-grade schools and CSU campuses, in working toward these goals.

In July 1986, funds were allocated from the General Fund Support Budget to CSU for the College Readiness Program. By January 1987, students had been selected, interns prepared and scheduling of after-class sections arranged at each of the 21 participating middle schools. During the initial implementation year, 748 middle school students, mostly 7th graders, participated in the program. Non-graduating students who had entered the CRP in January 1987 also participated in the 1987-88 program. They were joined by approximately 250 new students, bringing total CRP participation for 1987-88 to approximately 1,000 students.

This interim report focuses on the 1987-88 CRP by the external evaluator, Diogenes Associates. The data in this report were gathered from 21 participating middle schools and the five CSU support campuses. The evaluator also conducted several surveys of student participants to document the attitudinal impact of the program. Academic data including grades, test scores and college preparatory course enrollment patterns were collected on each student participating in the College Readiness Program. Information was also collected from a comparison sample of students who would have been admitted to the CRP had space been available. These students were reported as "working at grade level" in math and English subjects.

Section A. School Population

- o **School Enrollment**

The 21 CRP schools enrolled a total of 20,274 pupils; 24% were Black and 50% were Hispanic. On a school by school basis, Black students made up between 0 and 64% of the total enrollment. Hispanic enrollment ranged between 2% and 92%.

Enrollment at the individual schools in June 1988 ranged from 462 to 1650. The average school enrollment was 965.

There were 1,000 students participating in the College Readiness Program during the 1987-88 school year. Most schools served between 40 and 60 students.

Section B. Program Student Population

- o **Criteria for selection as a program participant.**

The 1987-88 program operated in twenty-one middle schools throughout the state. Five CSU campuses also participated in the program. Participation was limited to middle grade schools and CSU campuses that met the following criteria: 1) Middle grade school enrollment of 500 or more students and 2) at least 40% of the enrolled students were either Black or Hispanic. CSU campuses were selected according to their proximity to clusters of middle grade schools that met the school selection criteria.

The College Readiness Program assists Black and Hispanic middle grade students who are working at grade level to achieve competence in higher order cognitive skills in English and mathematics and prepare them for enrollment in a 9th grade college preparatory curriculum.

Selection of "at grade level" middle school program participants by CRP coordinators in the middle schools included grade level performance (between stanine 4 and stanine 6 on a district achievement test, and between 65-79 in math and English percentiles, subject grades, teacher/counselor recommendations and student interest. CAT or CAP scores used to determine eligibility were generally not below the 45th percentile.

The control group of students were made of up of 112 8th grade students from seven schools selected by middle school coordinators who were eligible to participate based on the above criteria had space been available.

o Definition of "Served" for the College Readiness Program.

Those students and parents who receive direct services from the program.

Approximately 1,000 students participated in the College Readiness Program during the 1987-88 academic year. Forty-four percent were Hispanic and three percent other. Eighth graders made up 23.2% of CRP participants, followed by 43.1% 7th graders and 34.6% of 6th graders. Girls outnumbered the boys 59.9% to 40.2%.

The percentages of AFDC recipients are available from eight of the 21 participating middle schools. However, this information and data on the language spoken at home and immigrant status will be collected on each CRP student for the 1989-90 evaluation report through school records and/or student surveys conducted by the school site program coordinators.

Section C. Evaluation Information

Program Objective 1: To increase by 30% the number of eighth grade Black and Hispanic students eligible to enroll in ninth grade Algebra I and college preparatory English.

Of the 532 eighth graders participating in the CRP, 234 (59%) were recommended for Algebra I and 335 (73%) were recommended for college preparatory English.

In the comparison group of eighth graders not participating in the CRP, all of whom were at grade level as determined by academic achievement testing and other criteria, 54% were recommended for Algebra I and 56% were recommended for college preparatory English.

The 17 percentage point advantage of CRP participants over the comparison group in readiness for high school English and the 5 percentage point advantage in mathematics suggest two possible conclusions: 1) that the CRP can make a significant difference in the academic preparation of students, and 2) that student interns may have been stronger in English skills than in mathematics. Further attention will be given to the preparation of interns in teaching algebra and math.

For further details on the program evaluation see the attached report, (Figure 6, p 9).

Program Objective 2: To improve 1) student and 2) parent motivation and awareness of college.

In Spring 1988, one hundred twenty students at MacClay, Olive Vista and Pacoima completed a survey about the College Readiness Program. The responses were consistently positive. Ninety one percent of the students felt the College Readiness Program had a significant impact on their learning, and increased their desire to attend college. Sixty-five percent also felt the program helped them receive better grades and helped them learn and understand math better. Fifty-five percent agreed the CRP had helped them improve in reading. When asked what they liked best about the program, many students said they appreciated most the close personal contact with the CSU interns who assisted them in their academic subjects after school.

CRP school coordinators at the 21 middle schools surveyed parents attending CRP workshops on the campuses. When compared with school parents in general within the schools, involvement of CRP parents was significantly greater. Eighty-seven percent of the CRP parents actively supported their children's college aspirations and were more than twice as likely as school parents to expect their children to attend college.

Middle school coordinators reported that most new CRP students were neutral about college matriculation at the beginning of the program. At the end of the year however, 90% were planning for high school with an aim to going to college.

For details see the Evaluation Report 1987-88 attached (p. 6)

Section D. Reasons for the Results Reported Above.

The College Readiness Program does not take the place of the regular school curriculum, nor does it provide remedial education. The title, College Readiness Program, assumes that participating students can, and will, attend college. Visits to CSU campuses and other school-based activities familiarize parents and students with college admission requirements and financial aid programs.

The College Readiness Program places great emphasis on a solid academic preparation for college preparatory courses in high school. College student interns work closely with small groups of students who learn to help one another in learning. The student interns are trained in these approaches by CSU faculty from the School of Education and are assigned to specific middle schools where they meet with students on a weekly or bi-weekly basis. The CSU student interns are chosen because of their success in college and to serve as positive role models for their students.

Coordinators at the middle school sites organize student academic assistance sessions and parent meetings. Middle grade CRP coordinators at the participating schools are generally excited by the program and believe the CRP is having a significant impact on students.

Several preliminary indicators suggest the College Readiness Program is effective.

- o A larger percentage of 8th grade CRP graduates, for example, are recommended for enrollment in college preparatory Algebra and English. (see Evaluation Report, p.10)

- o The students' interest in learning and in going to college has increased significantly (see Evaluation Report, p. 6)

- o Middle School coordinators and teachers are enthusiastic about the academic performance and college expectations of CRP students.

- o Parental expectations are higher for parents whose students are participating in the College Readiness Program.

An unintended but very important outgrowth of the CRP experience is the impact of the program on the CSU student interns. A number of interns who had not originally considered entering the teaching profession have decided to pursue a teaching career as a result of their experience. The full support and commitment of CSU faculty members from teacher education and math departments has also contributed significantly to enrich the program.

Section E. Outcomes not included in the Study Prospectus.

- o Interns Benefit: Approximately 96 percent of the interns reported they had benefited from the program. Sixty-five percent of the 87-88 tutors hoped to work again as a tutor the following year. Excluding those who

were not planning to become teachers, 28% of the remaining interns would like to teach in a middle school similar to the one in which they are now tutoring. Forty-one percent report they would like to teach the same student population they are now serving. The CRP appears to have an important ancillary impact on the interns working as tutors.

- o **Students see college as a real possibility**: Greater numbers of students are beginning to see college as a real possibility for themselves. At the end of one year, 100% of the students stated they were enthusiastic about attending college. Before participating in the program, 86% had stated they were neutral about attending college.

- o **Other schools getting involved**: Two middle schools in the San Jose area were so excited about the CRP concept that they negotiated with San Jose State for the use of student interns and developed a College Readiness Program at their school sites using school resources.

- o **Parent participation is high**: Parent Advocacy groups and Parent Site Councils have formed at all 21 sites. College Readiness parents are more involved in their children's education than is typical of parents involved at each middle school.

- o **Closer school-university collaboration**: Staff members at middle school sites have been surprised to find the variety of possibilities of working with the university. A majority of middle grade teachers (70%) and principals (90%) supported the goals and objectives of the College Readiness Program.

- o **Commitment of school coordinators:** Middle School Coordinators contributed significantly more in preparation time than the $1,000 stipend allowed. Middle grade coordinators spent an average of 20% of their workday coordinating the program.

- o **Intern Training Needs Identified:** Student interns reported the need for more contact with middle school teachers and more training and communication among CSU campus faculty and themselves.

- o **Ethnic diversity of interns:** Among the student interns participating in the College Readiness Program, approximately 22% were White, 43% were Hispanic, 20% were Black and 16% from other ethnic backgrounds. Compared to the previous year, a smaller proportion of the interns were White, and a slightly larger proportion of the interns reported speaking a language other than English at home.

Final Comments. (What we have learned from the CRP's first two years of operation): Academic assistance is best implemented in small groups so that peer group learning can occur. The quality and commitment of the individuals, both in administrative and teaching roles who have primary responsibility for development of the partnership is important. Continued and constant interaction between CSU faculty, student interns, principals and teachers directly involved in carrying out the program is crucial. There is a need for shared responsibility and accountability among the segments.

The willingness on the part of administrators and teachers to recognize and understand the differences of the various educational segments and work together in this joint partnership is commendable.

BY/0752y

Attachment

Appendix F

Early Academic Outreach Program

UNIVERSITY OF CALIFORNIA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DAVID PIERPONT GARDNER
President

WILLIAM B. FRAZER
Senior Vice President—
Academic Affairs

OFFICE OF THE PRESIDENT
BERKELEY, CALIFORNIA 94720

June 23, 1989

Penny Edgert
Postsecondary Education Specialist
California Postsecondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814

Dear Penny:

Enclosed is the information you requested about the University of California's Early Academic Outreach Program for your report on the evaluation of intersegmental student preparation programs. The material was compiled by Richard Komatsu and is organized along the lines we discussed at our May 16 meeting. If you have any questions, please do not hesitate to call me at (415) 642-5860 or Richard at (415) 642-5902.

Sincerely,

E.

Ed Apodaca
Director
Admissions and Outreach Services

cc: Assistant Vice President Cox
Assistant Vice President Justus
Coordinator Komatsu
Coordinator Kowarsky

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EARLY ACADEMIC OUTREACH PROGRAM

Admissions and Outreach Services
Office of the President
University of California

June 26, 1989

EARLY ACADEMIC OUTREACH PROGRAM
UNIVERSITY OF CALIFORNIA

Item 6420-001-001 of the 1988-89 Budget Act directs the California Postsecondary Education Commission (CPEC) to develop an evaluation design and subsequently to report on the impact of selected intersegmental efforts to prepare students for college. Specifically, the budget language states:

> In cooperation with the statewide offices of the public secondary and postsecondary institutions, the California Postsecondary Education Commission shall develop and implement a strategy to assess the impact of intersegmental programs designed to improve the preparation of secondary school students for college and university study. The purposes of the report shall be to identify those programs and institutional activities which are successful and to recommend priorities for future state funding to improve student preparation. In preparing this report, the Commission shall utilize data gathered by the statewide offices based on an evaluation framework developed cooperatively by the Commission and statewide office staff. Prior to December 1, 1988, the Commission shall prepare a list of the programs and institutional efforts to be included in this study, a statement of the specific objectives and the appropriate measures of effectiveness for each program and institutional effort to be reviewed, and a list of the data to be collected and supplied by the statewide offices to the Commission. Prior to October 1, 1989, and again the following year, the Commission shall submit a preliminary report on the relative effectiveness of these programs and efforts. Prior to October 1, 1991, the Commission shall submit a final report identifying those programs which have been the most effective in achieving their objectives and recommending priorities for future state funding to improve student preparation.

PROGRAM HISTORY

The University of California's undergraduate Student Affirmative Action programs represent the University's continued commitment to achieving a higher level of participation by students from underrepresented ethnic and racial groups in its undergraduate programs. In its policy on undergraduate admission, the University has defined its intention to enroll students who both meet its high academic standards and encompass the broad cultural, racial, geographic, economic, and social diversity of California itself.

The major issue confronting the University in pursuit of this aim is inadequate academic preparation of underrepresented ethnic and racial minority students at the elementary and secondary school level and, as a consequence, a low rate of eligibility for admission to the University among members of these groups. Progress toward resolving these problems is the central goal of the University's undergraduate Student Affirmative Action effort.

The findings of a University study to identify barriers to higher education, to find methods to increase access, and to review the factors that support academic success of underrepresented students showed that the primary barriers to access and retention were the low rate at which students attained University eligibility, and an overall low level of academic preparation. In order to increase ethnic and racial minority eligibility rates, the report, issued in 1975, recommended that the University begin to work with students earlier, preferably at the junior high school level.

In that same year, the University requested and received State funds to initiate a series of student affirmative action programs. The Early Outreach Program began in the spring of 1976, focussing on junior high school students. In 1978, the University initiated the second component of the Early Outreach Program; that effort continued at the high school level the developmental activity begun with the junior high school participants. These programs have since been combined as the Early Academic Outreach Program.

GOALS AND OBJECTIVES

The primary goal of the Early Academic Outreach Program is to increase the number of underrepresented ethnic and racial minority students eligible for the University of California or the California State University. The Program objectives pursued in order to reach this goal are as follows:

- At least 75% of the program participants are from underrepresented groups,
- At least 70% of all students served by the Program are enrolled in at least four A-F courses per semester beginning in the tenth grade,
- At least 50% of all students participating have cumulative GPA's of at least 2.5 in grades 7 through 9 and cumulative GPA's of at least 2.7 in grades 9 through 12,
- At least 35% of the Program graduates are UC eligible, and
- At least 55% of the Program graduates attend four-year colleges.

SELECTION OF TARGETED SCHOOLS

Early Academic Outreach is a student specific program, and as such the University evaluates its efforts in terms of the performance of its student participants, not the overall performance of the Early Academic Outreach schools' student bodies.

In administering the Early Academic Outreach Program, each University of California campus is responsible for a geographic service area. Schools within a campus service

area are assigned to the campus' SAA Early Academic Outreach Program by the Office of the President. However, as demographic changes occur and the level and type of service evolve, periodic reviews are made to ensure that those schools having the greatest need are served. The type of service required by each school varies based on its needs and resources. The number of schools served by each campus is determined by distance from the campus, nature of services to be offered, and availability of campus resources.

The schools selected for the Early Academic Outreach Program are those with a higher proportion of underrepresented ethnic and racial minority and low-income students enrolled than the average proportion statewide among schools. (See Appendix, Statistical Profile of Early Outreach Schools, Volume II, January 1987.)

While 36% of California's public high school students in 1988 were from underrepresented ethnic and racial groups, underrepresented students on average comprise half of the student population in the public high schools which have formed partnerships with the Early Academic Outreach Program. Similarly, while underrepresented ethnic and racial minorities constitute 40% of California's junior high school students, two-thirds of the students in junior high schools involved in the Program are underrepresented.

All told, the Early Academic Outreach Program served 46,406 students in 1988. This comprises 10% of the 468,903 total students enrolled in schools served by the Program that year. High schools participating in the Program graduated a total of 88,106 students. Of these, 25,635 completed the "A-F" course pattern required for admission into the University of California. Further, in Early Academic Outreach schools, 83,215 students were enrolled in advanced level mathematics courses and 112,341 students in advanced level science courses.

Additionally, the high school drop out rate (grades 10 - 12) for Program schools was 8%, the percentage of parents of twelfth graders in the school attendance areas who received benefit from the Aid to Families with Dependent Children (AFDC) program was 16%, and the percentage of the student bodies determined by the California Assessment Program to be limited-English proficient (LEP), i.e. students who lack English language skills necessary to receive instruction in English only was 9%.

All of these "quality indicators" for Early Academic Outreach schools, when compared with schools statewide, indicate that the Program has formed partnerships with the schools which are among the most needy in the state.

SELECTION OF PROGRAM PARTICIPANTS

The Early Academic Outreach Program serves students who are enrolled in grades seven through twelve. Student participants are accepted into the Program while still in junior high school. The Early Academic Outreach Program is open to any seventh or eighth grader who indicates a desire to participate and who also is a member of an

underrepresented group or low-income family. Minimum criteria for student selection include:

- Desire to participate in the Early Academic Outreach Program,
- Enrollment in the seventh or eighth grade;
- Member of an underrepresented group or low-income family,
- Potential to benefit from the services and to achieve eligibility for the University or other four-year institution upon graduation from high school, the attainment of which is judged unlikely without Program support, and
- Willingness to take the sequence of courses specified for eligibility to the University.

The services provided by the Early Academic Outreach Program vary by grade level of the participants. Activities build upon the work done in previous grades. In the seventh and eighth grades, the majority of the services revolve around identification of potential participants, development of motivation to aspire toward higher education, and dissemination of information about higher education.

As the student participant progresses toward high school graduation, the services offered become more specific. Academic tutorials provide help in developing skills necessary for survival in a college setting (such as time management and note taking), and also help in mastering academic course work. In the twelfth grade, participant seniors receive assistance with the application, enrollment, and financial aid processes.

These services are provided based upon needs of the schools in which participants are enrolled and upon the resources of the UC campus acting as service provider. There are three levels of service. Minimum thresholds for these service levels are as follows:

- Full Service: Individual student contact occurs either two or more times per month or four or more times per year. Academic advising and tutoring is available, either directly from Program staff, or from a cooperative program which has developed a working relationship with the Early Academic Outreach Program,
- Limited Service: Individual student conduct occurs at least three times per year.
- Informational Services: Mailings, telephone contact and large group presentations.

CONTINUATION OF PROGRAM PARTICIPANTS

Once enrolled in the Early Academic Outreach Program, students must meet a number of requirements in order to continue to participate. Program staff counsel participants to enroll in college preparatory courses and assist them in developing an academic plan specifying the academic courses (A-F) to be taken in the ninth through twelfth grades.

Students who enroll in A-F courses and who show evidence of their intention of attending a four-year academic institution are continued in the Early Academic Outreach Program. Students who show potential but fail to achieve University of California eligibility are considered for special admission or given a provisional admission contract contingent upon the successful completion of identified courses at a community college.

Each participant is expected to fulfill the above requirements in order to be continued in the Program. The criteria are designed to increase students' opportunities for higher education upon graduation from high school. At the junior high school level, participants must complete satisfactorily the appropriate English and mathematics courses. In addition, they must develop an academic plan for high school that will lead to eligibility for postsecondary education. At the high school level, participants are expected to complete the academic plans at a level of scholastic achievement qualifying them for a baccalaureate education.

Students who show a lack of interest in meeting these criteria or who do not plan to attend college are referred to other, more appropriate programs or services. Students who show an interest by their full participation are continued in the Program regardless of overall performance. Referring students to programs offering services more appropriate to their interests and abilities is an important aspect of the Early Academic Outreach Program; it allows the University to help more students, conserve resources, and concentrate on students most likely to profit from involvement in the Program.

PROGRAM RESULTS

The Early Academic Outreach Program addresses directly the central obstacle impeding the University's efforts to enroll a diversified student body - the low eligibility rate of ethnic and racial minority students. The junior high school component of the Early Academic Outreach Program seeks to increase the number of student participants who aspire to postsecondary education by informing them of the requirements for admission to such institutions and by motivating them to pursue college preparatory work. It is a collaborative effort between the University and 276 junior high schools throughout California. The junior high school component serves approximately 21,000 students.

The Early Academic Outreach Program extends also into 345 senior high schools. At this level, program staff continue the same services offered in the junior high schools,

and also strongly encourage students to complete rigorous University preparatory curricula. Increased emphasis is placed on academic services, such as tutoring and advising. Program staff also monitor student course selection and progress. To supplement Early Academic Outreach, four campuses select high achieving high school participants to receive academic tutorials in more advanced course work. This part of the Program, serving 1,659 students, is called the Academic Enrichment Program (AEP).

Table 1 shows the number of students and schools served by the Early Academic Outreach Program in 1987-88. This represents steady growth. In 1987-88, 46,406 students enrolled in 634 schools received Early Academic Outreach service.

TABLE 1

NUMBER OF SCHOOLS AND STUDENTS PARTICIPATING
IN THE EARLY ACADEMIC OUTREACH PROGRAM
1987 - 1988

	JUNIOR HIGH SCHOOLS	HIGH SCHOOLS	AEP HIGH SCHOOLS	TOTAL
Number of Schools	276	345	42	634
Students Served				
American Indian	450	558	3	1011
Black	3564	5887	79	9530
Chicano	8732	12088	220	21040
Latino	922	1598	36	2556
SAA Subtotal	13668	20131	338	34137
Filipino	1088	1669	12	2769
Asian	1262	1389	19	2670
White/Other	4618	2183	29	6830
TOTAL	20636	25372	398	46406

Source: UC Office of the President, Admissions and Outreach Services, June 1989.

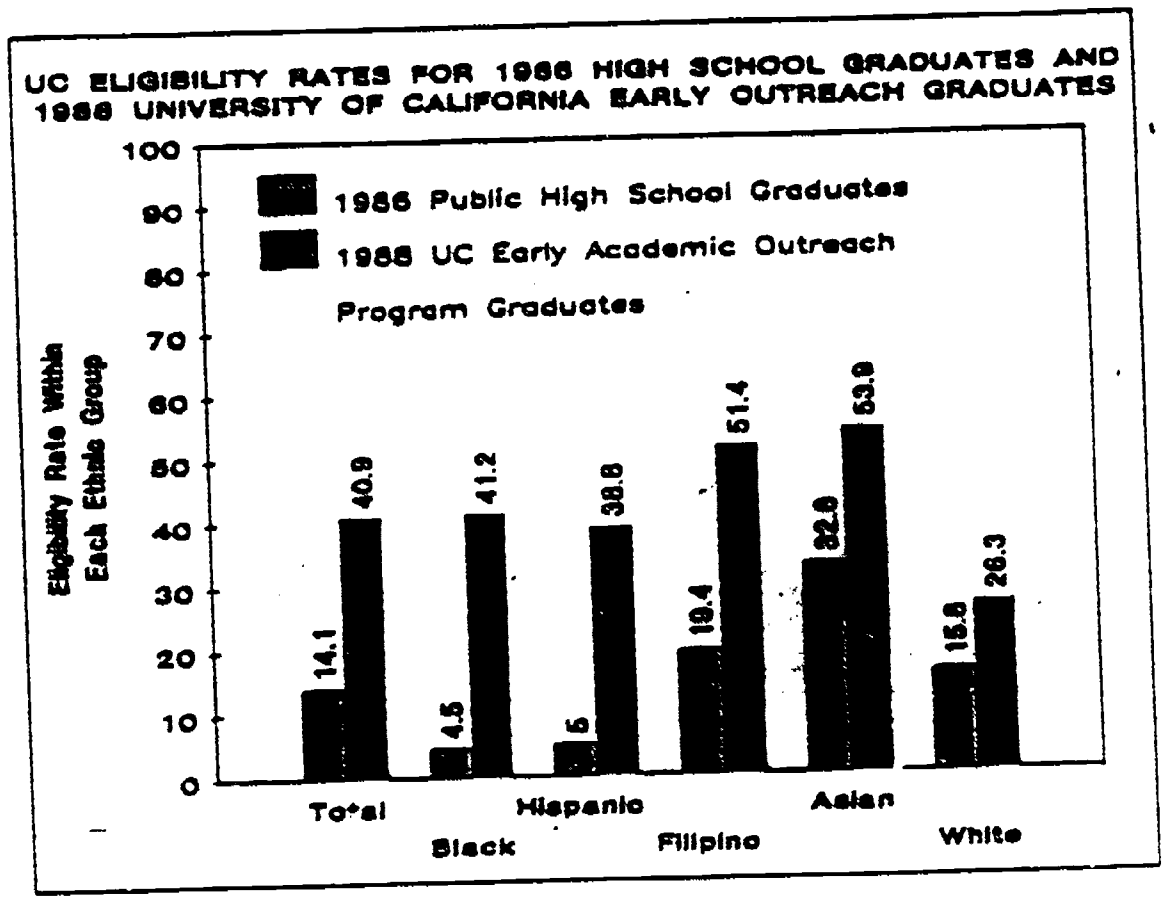
The Program does not keep records of participants' socioeconomic background, immigrant status, or language spoken at home. However, as noted above, the schools with which the University has formed partnerships have within their student bodies, higher proportions of AFDC recipients and LEP students than the state averages. In addition, one of the goals of the Program is that 75% of the participants be from underrepresented groups. Conversely, 25% of the participants should be from groups which are not underrepresented, but whose families' income and educational level warrant inclusion into the Program.

Based on available resources, school needs, geographical, and budgetary considerations, each University campus determines the extent of services it an offer to schools in its area. The following are the basic services offered by the Early Academic Outreach Program:

- Academic advising,
- Role model presentations,
- College and university visits,
- Dissemination of information, and
- Means for parent involvement in education.

By almost any measure, the Early Academic Outreach Program has been extremely successful in assisting participants in achieving eligibility for admission to the University. The California Postsecondary Education Commission (CPEC) has found 14.1% of all 1986 public high school graduates to be eligible for admission to the University of California. The same study, however, found only 4.5% of Blacks and 5.0% of Hispanics to be eligible. By contrast, in 1988, 41% of Early Academic Outreach graduates were eligible for the University. The rate for Black participants was 41% and for Hispanics was 39%. Within every ethnic/racial category, Early Academic Outreach graduates surpassed the statewide eligibility rate (Figure 1). These outcomes are consistent with the results from prior years (Table 2), and show a steady increase.

FIGURE 1



Note: These data reflect underrepresented minority students (American Indian, Black, Chicano, and Latino) combined with low income Filipino, Asian, White and other ethnic groups.

Source: University of California, Office of the President, Admissions and Outreach Services, June 1989.

TABLE 2

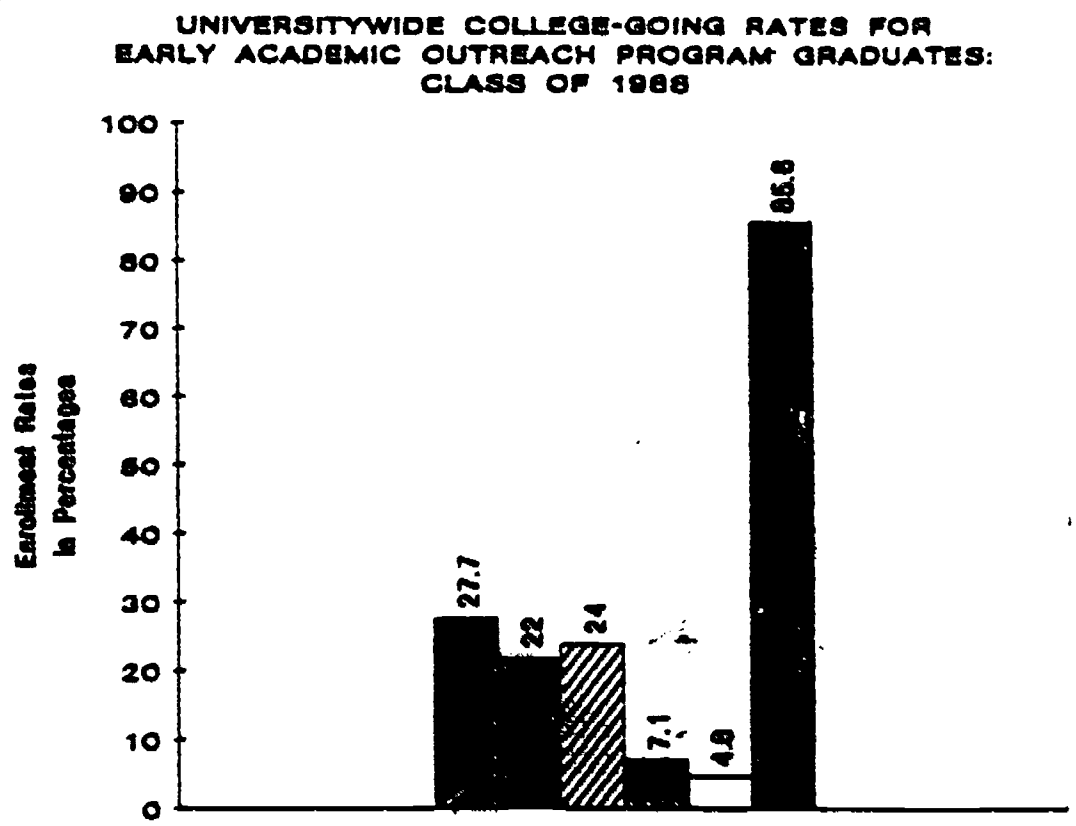
UC ELIGIBILITY RATES FOR 1983 HIGH SCHOOL GRADUATES AND UC EARLY ACADEMIC OUTREACH PROGRAM GRADUATES, 1986 – 88

	California Public High School Graduates: 1986	Early Academic Outreach Program Graduates 1986	1987	1988
BLACK	4.5	24.1	30.2	41.2
HISPANIC	5.0	25.1	32.0	38.6
FILIPINO	19.4	40.4	41.6	51.4
ASIAN	32.8	56.3	56.9	53.9
WHITE	15.8	30.9	34.0	26.3
TOTAL	14.1	27.7	34.0	40.8

Source: UC Office of the President, Admissions and Outreach Services, June 1989

Moreover, in 1988, 86% of the all Early Academic Outreach graduates enrolled in some postsecondary institution. Sixty-two percent of the graduates enrolled in the University of California, California State University, or other four-year institutions (Figure 2). Among ethnic and racial minority groups, 52% of Black participants and 49% of Hispanic participants enrolled in a public university in California. By contrast, among non-participants statewide in 1987, only 13% of Black public high school graduates and 10% of Hispanics enrolled in the University of California or the California State University.

FIGURE 2



Note: These data reflect underrepresented minority students (American Indian, Black, Chicano, and Latino) combined with low income Filipino, Asian, White and other ethnic groups.

Source: University of California, Office of the President, Admissions and Outreach Services, June 1989.

CONCLUSION

The University of California is justly proud of the accomplishments of its Early Academic Outreach Program. In the future, it will continue to monitor and, when necessary, modify the Program in order to effectively serve its student participants. More emphasis on and strengthening of activities which have an academic focus will be continued, as will the forging of formal agreements with other programs servicing the same age group. In this way, the successes achieved by the University of California's Early Academic Outreach Program thus far should be maintained.

Appendix G

Expanded Curriculum Consultant Project

July 21, 1989

To: Barbara Brandes

From: Paul Gussman

Subject: SDE response to CPEC on: The WASC/SDE Joint Process and Curriculum Consultant Project

I am responding to Penny Edgert's May 23, 1989 memo regarding the WASC/SDE Joint Process: Curriculum Consultant Project. As you know this is an intersegmental accreditation effort which has the potential of effecting every public high school in the state. Because it is a statewide effort focusing on accreditation, high school departmental self studies, curriculum, and outside curriculum consultants in partnership with high school faculty, it is difficult to separate out the program's effect on schools with high minority populations, let alone evaluate the impact such a program has by itself in improving the college going rates and preparedness of minority students. However, keeping this caveat in mind, what follows is the write up on the Project using the format suggested by Terry Emmett. I leave it to you after having read the material whether to sent it on to Penny Edgart.

WASC/SDE Joint Process: Curriculum Consultant Project

Project Definition and Summary

There is a long history of intersegmental efforts to improve the quality of instruction in California's high schools. As recently as January 1984, the California Postsecondary Education Commission (CPEC), in its report: Improving College Preparatory Programs through High School Accreditation, called for increasing joint efforts between high schools and colleges and universities as a way of strengthening the academic preparation of high school students. About the same time, the University of California's Board of Admissions and Relations with Schools (BOARS) began discussing a plan to have University of California (UC) faculty certify high school coursework to ensure that high school graduates were adequately prepared for college. In addition, the State Department of Education (SDE) was strengthening the program quality review process by linking school reviews with high school accreditation practices administered by Western Association of Schools and Colleges (WASC). By 1985, recognizing both the importance of providing an overall statewide strategy for external assessment in California's secondary schools and the need to reduce confusion caused by multiple improvement initiatives, BOARS, WASC, SDE, UC, the California State University (CSU), and the community colleges combined their efforts to develop an expanded high school accreditation process. This process is known as the WASC/SDE Joint Review Process.

Goals of WASC/SDE Joint Review Process

The WASC/SDE Joint Process combines the WASC self study process and the State Department of Education's program quality review criteria. The Joint Process is fully defined in the Pursuing Excellence: Procedures for Appraising the California Public High School. As stated in Pursing Excellence the goals of the Joint Process are:

- o Assuring a school and its public that the school has established and is meeting its goals and objectives
- o Improvement in the process of school renewal for the school
- o Improvement in the instructional program
- o Improvement in the schoolwide strategies that support the delivery of the instructional program

Description of the Curriculum Consultant Project

A central feature of the Joint Process is the appointment of curriculum consultants from postsecondary academic departments and other educational agencies to work with secondary school faculty to review the quality of the curriculum and instructional practices and to assist with the development of a self-study report. This aspect of the Joint Process is called the Curriculum Consultant Project. The curriculum consultants are faculty recruited from the postsecondary academic departments and other educational agencies who have particular expertise in one of the eight core subject areas under review by the schools including: English/language arts, mathematics, science, history/social sciences, visual and performing art, foreign language, technical and vocational education, and physical education. Specifically, the role of the curriculum consultant is to assist the departments with:

- o taking an in-depth look at its curriculum;
- o expanding their thinking about curriculum;
- o understanding and applying WASC/SDE Joint Process criteria; and
- o the development and implementation of WASC/SDE Joint Process self-study report.

From its inception, the Project has been guided and administered by an intersegmental committee, chaired by a representative of the Intersegmental Committee of the Academic Senates of the University of California, the California State University, and the California Community Colleges. Recently, administration of the Curriculum Consultant Project was transferred to the University of California; as of Spring 1989, all administrative duties for the Curriculum Consultant Project (CCP) are the responsibility of the University, except for contracting and monitoring the project evaluation. (These arrangements between the Department and the University are detailed in a Memorandum of Understanding [MOU].) The project currently receives from the State an operating budget of $395,000.

Each school that selects the Joint Process option has up to three

years from the start of its self-study process to call upon the services of a curriculum consultant to review its curriculum and/or assist with implementing their action plans and the recommendations of the visiting committee.

Expanded Curriculum Consultant Project

The Expanded Curriculum Consultant Project is a pilot effort which began during the 1988-89 year with four (4) high schools (Muir H.S., Pasadena, Ganesha H.S., Pomona, Brawley H.S. Brawley, and Sherman Indian High School, Riverside) that selected the Joint Process as the preferred method for accreditation. These schools had at least a 40% enrollment of racially and/or ethnically diverse students.

Schools which volunteer to participate in the Expanded Project work with a full team of eight (8) curriculum consultants. A new feature of the Expanded Project is the addition of two new members to the consultant team; a counselor - consultant and a principal-mentor. The ten (10) member consultant team is available to the school for three years; during the accreditation year and for two additional years to assist with the implementation of the priority areas identified by the self-study and the visiting team. (A consultant in the Expanded Project visits the school a minimum of six times, whereas the consultant visits the school only twice in the regular Project.) In addition, the schools come together for a Summer Institute for further school planning and school effectiveness workshops.

A. School Population: In 1985-86 eighteen (18) schools piloted the WASC/SDE Joint Process and Curriculum Consultant Project. The following year, seventy-three (73) selected the Joint Process option. In 1987-88 the number of schools increased dramatically to one hundred twenty nine (129) and this year one hundred ten (110) schools are involved. Next year over one hundred (100) new schools are expected to participate. There are currently over 1100 curriculum consultants listed in the Curriculum Consultant Directory who have volunteered their services to assist schools with the Joint Process.

B. Program Student Population

- Criteria for selection as a program participant: The WASC/SDE Joint Process for high school accreditation is open to all schools.

- Definition of "served" for this program: If a school selects the WASC/SDE Joint Process option the school receives the services of curriculum consultants. Since a consultant is required for all content areas, it can be assumed that indirectly all students in a school are served.

- Grade level: The program is open to all secondary schools, and continuation schools. In prior years some middle/junior highs have participated.

- o Racial-ethnic background/gender/scs: This information could be obtained through high school performance reports for participating schools, although currently this is not collected. We expect that the evaluation (see below) will begin collecting such data.

- o Immigrant status and language spoken at home: This information might be available, but as noted in the previous section, it is not currently collected.

C. Evaluative Information:

In 1989, the Department received funds for the first year of a three-year independent evaluation for the Curriculum Consultant Project and the Expanded Curriculum Consultant Project. (Funding for years two and three are contingent on annual State appropriations.)

The request for Proposals (RFP) set forth the requirements for the independent evaluation of the Curriculum Consultant Project and the Expanded Project; the effectiveness of the Projects and recommendations for change. The selection process was completed in June 1989. The evaluator is Evaluation and Training Institute. They are the same group that currently evaluates the California Academic Partnership Program (CAPP).

Purpose of Evaluation and Major Study Questions

The evaluation will provide the State Department of Education as well as the Curriculum Consultant Project Steering Committee, schools, and postsecondary segments with information regarding the character and effects of the Curriculum Consultant Project and make recommendations for its improvement. The information gathered in the evaluation will be used as a tool to guide future efforts aimed at helping schools improve their curriculum. The evaluation is designed to answer three broad questions about the project:

(1) Goals: Does the Curriculum Consultant Project have clearly articulated goals and are they consistent with the goals of the WASC/SDE Joint Process?

(2) Administration: How effective are the current operating procedures of the Curriculum Consultant Project in recruiting consultants, preparing them to work with schools, and matching them with school departments? How effective is/was the organizational structure in implementing policy?

(3) Consultant Role: What effect does the Curriculum Consultant Project have on the curriculum improvement process at participating schools? and What might be done to strengthen the role of the Curriculum Consultant component in the WASC/SDE Joint Process?

D. Discussion of the Reasons for the Results Reported Above: N/A

E. Discussion of Outcomes not included in the Study Prospectus:

The Expanded Curriculum Consultant Project, mentioned in an earlier section of this report, has the greatest potential for effecting students' college going rates and preparedness in schools with high minority populations. CPEC might wish to follow those schools (Ganesha, Muir Brawley, and Sherman Indian and any others that come into the program) rather than the entire project.

cc: Dave Jolly
Terry Emmett

Appendix H

Mathematics, Engineering, Science Achievement Program

4A. STUDENT ENROLLMENT IN SCHOOLS WITH MESA PROGRAMS

FALL, 1987, ENROLLMENT IN SCHOOLS WITH MESA PROGRAMS

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	MAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
TOTAL TOTAL				2,113	117753	54,578	25,576	82,640	1,610	8,760	293,030

FALL, 1987, COURSE ENROLLMENT IN ADVANCED MATH IN HIGH SCHOOLS WITH MESA PROGRAMS

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	MAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
TOTAL TOTAL				72	2,467	1,453	3,965	6,596	100	947	15,580

FALL, 1987, COURSE ENROLLMENT IN CHEMISRY IN HIGH SCHOOLS WITH MESA PROGRAMS

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	MAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
TOTAL TOTAL				109	4,894	3,190	3,289	7,256	179	1,033	19,950

FALL, 1987, COURSE ENROLLMENT IN PHYSICS IN HIGH SCHOOLS WITH MESA PROGRAMS

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	MAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
TOTAL TOTAL				43	1,417	936	1,929	3,546	40	604	8,515

FALL, 1987, GRADUATES FROM HIGH SCHOOLS WITH MESA PROGRAMS

...ION	DISTRICT	SCHOOL NAME	GRADE SPAN	NAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
...TAL ...TAL				192	13,361	6,995	3,919	14,967	302	1,579	41,295

FALL, 1987, SENIORS WHO SATISFY THE A-F REQUIREMENT IN HIGH SCHOOLS WITH MESA PROGRAMS

...SION	DISTRICT	SCHOOL NAME	GRADE SPAN	NAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
...OTAL ...OTAL				39	2,110	1,398	2,142	4,862	112	669	11,332

STUDENTS WHO DROPPED OUT OF SCHOOLS WITH MESA PROGRAMS IN 1987

...SION	DISTRICT	SCHOOL NAME	GRADE SPAN	NAT AM	HISP	BLACK	ASIAN	PACIFC	FILIP	WHITE	TOTAL
...TAL ...TAL				104	8,943	4,025	918	179	283	3,566	11,830

FALL, 1987, GRADUATES FROM HIGH SCHOOLS WITH MESA PROGRAMS

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	NAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
TOTAL TOTAL				192	13,361	6,995	3,919	14,967	302	1,579	41,295

FALL, 1987, SENIORS WHO SATISFY THE A-F REQUIREMENT IN HIGH SCHOOLS WITH MESA PROGRAMS

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	NAT AM	HISP	BLACK	ASIAN	WHITE	PACIFC	FILIP	TOTAL
TOTAL TOTAL				39	2,110	1,398	2,142	4,862	112	669	11,332

STUDENTS WHO DROPPED OUT OF SCHOOLS WITH MESA PROGRAMS IN 1987

REGION	DISTRICT	SCHOOL NAME	GRADE SPAN	NAT AM	HISP	BLACK	ASIAN	PACIFC	FILIP	WHITE	TOTAL
TOTAL TOTAL				104	8,943	4,025	918	179	283	3,566	11,830

4B. GENDER, ETHNCITY, AND GRADE OF MESA STUDENTS

Current Enrollment in MESA: Gender and Ethnicity

ETHNICITY	GRADE 4	5	6	7	8	9	10	11	12	TOTAL
BLACK	42	60	127	336	351	263	366	312	90	1947
MEX AMER	8	15	82	395	459	596	756	787	237	3300
NAT AM	2	3	16	52	43	34	40	39	10	239
P. RICAN	0	0	4	9	12	12	20	12	7	76
TOTAL	52	82	230	792	865	905	1182	1150	344	5562

06/26/89 :RCNTS

Current Enrollment in MESA in the : Gender and Grade

GENDER	GRADE 4	5	6	7	8	9	10	11	12	TOTAL
TOTAL	52	82	230	792	865	905	1182	1150	344	5562

06/26/89 :RCNTS

4B. SOCIO-ECONOMIC BACKGROUND OF MESA STUDENTS AS INDICATED BY FATHERS' OCCUPATION. (Data not available on income or AFDC status.)

MESA Students' Fathers' Occupation

FATHERS OCCUP.	REGION BAY AREA	CENTRAL	LA BASIN	N. CAL	SOUTHERN	TOTAL
COMPUTER SCI	19	4	6	16	12	57
DON'T KNOW	244	195	334	212	228	1213
ENGINEER	84	39	94	58	69	304
FACTORY WORKER	38	80	224	90	147	518
GENERAL LABOR	115	222	234	123	126	820
MGR.OR SUPERV	140	128	204	139	145	757
NEVER EMPLOYED	7	0	10	12	11	40
OTHER PROF. :	195	184	212	204	180	975
SALES,CLERICAL	27	24	38	35	39	164
TECH., TRADE	132	127	178	113	119	666
TOTAL	1001	997	1491	962	1076	5522

06/27/89 :RCNT

4B. IMMIGRANT STATUS—DATA NOT AVAILABLE.

4B. LANGUAGE SPOKEN AT HOME BY MESA STUDENTS, BY ETHNICITY

MESA Students: Language other than English Spoken at Home?

ETHNICITY	Non-English?		PERCENT
AMERICAN IND.	NO	193	82.5%
	YES	41	17.5
*TOTAL AMERICAN IND.		234	100.0%
BLACK	NO	1785	92.4%
	YES	147	7.6
*TOTAL BLACK		1932	100.0%
MEXICAN AMER.	NO	835	26.0%
	YES	2381	74.0
*TOTAL MEXICAN AMER.		3216	100.0%
PUERTO RICAN	NO	22	29.3%
	YES	53	70.7
*TOTAL PUERTO RICAN		75	100.0%
TOTAL	NO	2835	51.9%
	YES	2622	48.1
		5457	100.0%

06/28/89 :RCNT

4C. EVALUATION OF EXTENT TO WHICH OBJECTIVES HAVE BEEN MET

1. % of 1989 MESA students with math-based career interests--96.2%.

2. % of 1988 graduates with 3+ years in MESA--62.3%.

3. % of 1988 MESA graduates with 1+ years in summer enrichment program--36.1%.

4. % of 1989 MESA students who are enrolled in courses prerequisite to physics and advanced math--82.4%.

5. % of 1988 MESA graduates who took SAT--70.7%.

6. % of 1988 MESA graduates who enrolled in 4-year colleges.-- 71.5%

7. % of 1988 MESA graduates who majored as freshmen in a math-based field--54.3%.

ADDITIONAL OBJECTIVES

8. % of 1988 graduates who completed advanced math--93.5%.

9. % of 1988 graduates who completed chemistry--90.5%.

10. % of 1988 graduates who completed physics--78.8%.

4D. REASONS FOR REPORTED RESULTS

All of the results reported under 4C contribute to the overall result MESA seeks to achieve—to increase the number of targeted students who successfully graduate from high school prepared to attend college and major in math-based fields.

Those program elements which contribute to the results achieved are as follows:

1. 96.2% of current MESA students have math-based career interests.

MESA students are recruited partly on the basis of their expressed interest in math-based fields of rtudy and careers, or on their willingness to learn more about these fields. From the beginning of their participation in MESA they know that subject areas such as engineering, computer science, science, mathematics, and biology are emphasized in MESA.

After joining MESA, the types of speakers, field trips, hands-on curricula, and competitions to which they are exposed are designed to stimulate their interest in these math-based fields. They are exposed to college students studying engineering, engineers and computer scientists from industry, and MESA alumni as role models and instructors.

Beginning at the junior high level, parents attend MESA meetings and assist MESA Advisors, and are also orieuted to the many career options in math-based fields for their sons and daughters. They are encouraged to present math-based fields as attractive career and academic emphases for their children.

2. 62.3% of MESA 1988 graduates spend 3+ years in the MESA program.

The habit of persistence and retention is formed early in MESA. Students are rewarded for achievement in their academic courses with cash and non-cash incentive awards, and with certificates, plaques, and speaking opportunities at end-of-the-year banquets. Students also receive awards for successful competition in MESA Day. Participation in field trips, Saturday Academies, MESA periods and MESA Day is fun, creative, and social, as well as being academic. They associate with an academically-oriented peer group of students like themselves.

Students receive help from the MESA team at each school—the math or science teacher who is the Advisor, a counselor, and an English teacher, to cope any difficulties they encounter which might obstruct their academic progress or their full participation in the MESA program. A number of adults are interested in their progress, plus they become friends with Academic Facilitators, role-model college students, who help to tutor them and encourage them.

4,7,8,9,10. High percentages of MESA students take courses pre-requisite to physics and advanced math, complete advanced math, chemistry and physics, and 54.3% of 1988 graduates declared math-based majors in college as freshmen.

MESA requires its students to take 4 years of college-preparatory math and science. It succeeds in retaining them as described above. Because of the positive reinforcement of awards for achievement, tutoring and counseling to deal with difficulties, activities which are fun and social, and strong encouragement from the adult and professional community.

As a result, MESA students feel confident and competent when they arrive in college, and know how to study, how to get help, how to help each other, and often have clearly-defined goals. They choose math-based fields as majors because they are well-prepared, familiar with those fields, and know which professions they can expect to qualify for if they pick math-based majors.

6. 71.5% of 1988 MESA graduates enrolled in 4-year colleges.

In contrast to the 40-50% of targeted high school graduates who attend two-year colleges in the general population, MESA students, by and large, choose to attend 4-year colleges.

MESA encourages students to apply to 4-year colleges and requires them to prepare for college by offering SAT preparation and requiring them to take the SAT. If students are unable to pay for SAT and PSAT examination fees, they can receive financial help for this purpose from MESA. They are informed at MESA meetings when the SAT will be administered, and what they need to do to prepare for the examinations.

MESA students are familiarized with college applications, and with college-application dates, particularly for the University of California and the California State College systems. They receive help with their applications. Parents are asked to think about college as an option for their children beginning in 6th and 7th grade. This gives parents an opportunity to prepare financially, also to reinforce college plans for their children and follow-up on application procedures, etc.

MESA students also receive college scholarship information.

MESA students who choose to attend a college having a MESA Minority Engineering Program and wish to major in engineering or computer science, find a college network ready to ease their transition to college and provide them support. They can attend a summer school session which orients them to the college, which prepares them, if necessary, in math and science, and which provides friends, places to study, help with registration and financial arrangements, and course counseling.

Many MESA students have visited the campus which they choose to attend, perhaps more than once, under the auspices of MESA. Many have been tutored by college students who gererously share their experience of college and explain why college preparation is important.

For MESA students, preparing for the future means preparing to attend a 4-year college, preparing to major in a math-based field, and preparing to pursue a math-based profession. These expectations are internalized by most MESA students. Within these broad guidelines, there is much room for individual variation.

4E. Outcomes other than study prospectus objective of increasing the number of targeted students graduating from high school prepared to attend college in math-based fields.

1. MESA has created a statewide administrative network which joins middle and secondary schools, major universities and colleges, and industry in the effort to improve education, particularly in science and math, for targeted minority students. This network functions comprehensively and relatively smoothly in high-minority schools districts, to the point that new efforts to benefit the same population of students, such as that being launched by the Kaiser Family Foundation, often opt to work through MESA, rather than re-create another network.

The existing network allows for future expansion with a minimum of personnel costs because of the addition of Regional Directors, and use of college students, older MESA students, and MESA alumni. The addition of Tulare schools to the MESA network, for example, will not require the creation of a new MESA Center with attendant costs, because Tulare is in the proximity of both Bakersfield and Fresno functioning MESA centers. Tulare will utilize resources from both, and will be under the supervision of the MESA Regional Director for the Central Region.

2. School improvement.

MESA Advisors are teachers who are leaders in the school setting as a result of carrying out MESA activities. They participate in MESA curriculum workshops; attend an annual Advisors' conference which confers recognition and offers additional workshops; and a few Advisors each year are sent to a national teacher's conference, offered by SECME. School districts give release time to MESA Advisors and support their activities. Over 300 teachers are MESA Advisors.

MESA is in the position to offer general professional development workshops for any interested teachers in MESA schools and plans to do so beginning in 1990, pending funding. Teachers who work as a team to address school problems and develop overall goals are a powerful tool to improve schools. Administrators will also be invited. This plan has resulted as a spinoff of Pacific Bell's sponsorship of professional development throughout the MESA network for the past two years.

MESA's requirements stimulate additions to the mathematics and science courses in many MESA schools. To have a MESA program, high schools must offer trigonometry and pre-calculus, as well as advanced science courses. The pilot program at Sherman Indian High School, for example, reinforces the school's efforts to become a competitive academy.

Creation of a core high-achieving peer group in schools catalyzes a change in academic expectations and goals of targeted

students, their parents, and their teachers. In urban Centers, such as CSU-Los Angeles, the number of MESA students per high school is growing, in some cases, reaching 100 students or more per school. This higher profile within the school has a strong effect on other students, who hear about MESA, and see their friends meeting MESA's standards and receiving recognition. The pilot program at rural Watsonville High School is rapidly gaining popularity and has applicants for junior high MESA before it has even been established.

MESA periods, integrated into the regular school day, instead of during lunch or after school, offer a model of a new classroom approach to study and teaching. Modeled after Uri Treisman's Professional Development Program study periods, these sessions encourage students to work on their homework problems together before consulting the Advisor or college student who is their academic facilitator. Students collaborate in small groups on different subjects and receive informal help and instruction as needed from tutors. Their work may focus on one major subject, such as calculus, in which case, the Academic Facilitator may have prepared challenging problems for them which go beyond required classroom expertise. The socializing factors of friendship with each other and friendly, casual interaction with tutors are an integral part of this academic approach.

3. MESA Alumni Role Models

Since 1987, MESA has polled its college graduates about their professional plans and asked whether they would be interested in helping MESA as volunteers in various capacities. Since 1983, 4,632 students have graduated from the high school program, and 61.6% have been tracked throughout their academic careers. 96.5% were enrolled in college in fall 1987 or had received their college degree. To date, approximately 450 college graduates who were enrolled in either or both pre-college MESA and MEP have replied to MESA questionnaires, and of those, about 300 have indicated their willingness to work with MESA. About half of those who replied were employed as engineers or computer scientists. Between 40 and 50% were either attending graduate school or were planning to do so. MESA pilots a mentor program in various locations in the Fall of 1989 which will take advantage of this growing group of ideal role models.

Appendix I

Middle College

CHANCELLOR'S OFFICE

CALIFORNIA COMMUNITY COLLEGES
1107 NINTH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-8752

July 18, 1989

TO: Penny Edgert
CPEC

FROM: Ronn Farland
Vice Chancellor
Academic Affairs

SUBJECT: **Background Paper on Middle College High School**

Synopsis: In the absence of Dr. Martha Kanter, I am taking the liberty of transmitting to you the information you requested on Middle College High Schools which, I understand, will be used in the Commission's upcoming report on intersegmental student preparation programs. The paper was prepared by Dr. Connie Anderson and Ms. Rosa de Anda of my staff. Should you wish additional information or have questions, please feel free to contact either of them at 322-6880.

cc: Burris
Meznek
Kanter
C. Anderson
De Anda

RWF/vw

Middle College High School

PROGRAM DESCRIPTION

Middle College High School was first established in 1974 at La Guardia Community College in Long Island City, New York. A Middle College High School is an innovative high school located on a community college campus for high-risk potential dropout students who have college potential.

The high school is a collaborative effort between the community college and the local high school district. The school district provides the instruction, faculty, and overall administration for the school; the college provides the classrooms, nursing services, access to student body activities, library, college facilities and some college course for the Middle College students.

Because of the success of the Middle College High School, the Ford Foundation gave a grant to La Guardia Community College to provide assistance in the replication of Middle College High School at selected sites nationally. During 1988-1989, State funding was secured to establish two Middle College High School sites in California.

The California Community College Chancellor's Office in collaboration with the Ford Foundation, selected through a Request for Proposal (RFP) process, Los Angeles Southwest College and Contra Costa College as the two California sites. The full implementation of the two sites requires four years. The first year is a planning year to develop intersegmental agreements and contracts, hire and train faculty, develop curricula, and select students for the schools. During the second year of implementation, the school is opened with the first class. During the third and fourth years of implementation, additional classes are added until the school is fully enrolled. Once implemented, the high school is self-supporting from the revenue generated from ADA (average daily attendance) by the school district and community college.

During 1988-1989, each site received a $65,000 planning grant from the State and consultant services from the Ford Foundation to assist in planning for the opening of the schools. $150,000 is allocated by the Senate in 1989-1990 for each site for second year implementation.

FIRST YEAR PROGRAM OBJECTIVES

In September 1989, the first class of Middle College High School at Los Angeles Southwest College and Contra Costa College will begin instruction. By September, 1989, the following objectives will have been met at each site:

- the establishment of an inter-organizational planning committee.

- the endorsement of the Middle College High Schools by administrative and local governing boards, citizen groups, and employee groups.

- the development of guidelines, policy statements, and memoranda of agreement between the community colleges and the school districts.

- the identification and allocation of space for the school at the community college.

- the selection of students according to developed criteria.

- the selection of the school principal, counselors, and teachers for the school.

- the development of a budget for the four year phase-in of the schools.

- the training of community college and high school staff at a Ford Foundation training program in Memphis, Tennessee in July, 1989.

- the development of evaluation criteria in August, 1989 to assess the success of the high school.

SCHOOL AND STUDENT POPULATION

The following is summary information on the school district in which Middle College operates:

Los Angeles Southwest College/ Los Angeles Unified School District

The Los Angeles Unified School District is the largest in California and the second largest in the nation. It serves more than 500,000 K-12 students in Los Angeles County. The population of the area surrounding LA Southwest College has been predominantly African-American, 64% in 1980. There is however, a growing Latino population. Although LA Southwest's student population is currently 91% African-American, current estimates indicate that over 40% of the students enrolled in local elementary schools are Latino.

In 1987/1988, the school district attrition rate was approximately 15%, however, dropout figures for individual schools are reported at anywhere from 40 to 60%.

Students selected to attend the Los Angeles Middle College High School will be identified at Clay, Markham, Bethune, Gompers,

Mann, Muir, and Perry Junior High Schools. In addition, some 9th graders will be identified at Locke and Jordan High Schools.

Appendix A outlines demographic information on MIddle College feeder junior high schools and feeder high schools as well as other high schools Middle College students would have attended if they did not attend Middle College.

Contra Costa College/Richmond Unified School District

The Richmond Unified School district is the 16th largest district in California with 28,500 K-12 students. Unemployment within the district was 7.6% in April, 1987, compared to 5.8% for the State. In the Richmond/San Pablo area of the district, 35%% of the families live below poverty level and nearly 25% of the students are AFDC recipients. More than 64% of the students are of ethnic minority origin.

Students selected to attend the Contra Costa Middle College High School will be selected from Crespi, Helms, Pinole and Portola Junior High Schools. Demographic data on these junior high schools as well as demographic on the high schools in the district are contained in Appendix B.

PROGRAM STUDENT POPULATION

Information is not currently available on the students served by the program since the selection of students for the Middle College High Schools is currently underway. Richmond Unified School District is selecting 75-8th grade students who will comprise their first high school freshman class. Los Angeles Unified School District is selecting 100-9th grade students to comprise their first Middle College sophomore class. Since the Los Angeles Unified School District junior high schools include 9th grade, the Southwest Middle College High School will begin at 10th grade.

Some of the criteria for selection of Middle College students is a history of truancy, low academic achievement, and recommendation by a junior high school counselor. Through the selection process efforts will be made to ensure that program participants reflect the ethnic mix of the community and that there is an equal percentage of males and females in the school.

Appendix A: Los Angeles Southwest College/Los Angeles Unified School District

A. School Population and Demographic Information

Key				
	AI	American Indian	H	Hispanic
	AS	Asian	PI	Pacific Islander
	BLK	Black	W	White
	P	Pilipino	*	less than 1%

Junior High Schools 1988/89 Ethnicity

	AI	AS	BLK	P	H	PI	W	Total
Clay	0	*	67%	*	32%	*	*	1,434
Markham	*	*	59%	0	40%	*	0	1,561
Bethune	0	0	42%	0	58%	0	*	1,585
Gompers	0	0	67%	0	32%	*	0	1,342
Mann	0	*	84%	0	16%	*	0	1,479
Muir	0	*	56%	0	45%	0	*	1,395
Perry	*	18%	26%	3%	36%	2%	13%	1,739
Senior High Schools			1987/88 (from CBEDS)					
Washington	0	*	87%	*	13%	*	0	2,859
Locke	*	*	72%	*	27%	*	*	1,810
Jordan	0	*	42%	0	57%	*	*	1,809
Fremont	0	0	37%	0	62%	0	*	2,366

Fremont High School:

Number of high school graduates: Class of 1988 - 310

Number of 1986 graduates completing A-F subjects: 5

Number of high school dropouts: 1986/87 Data - Three year average 66

Number of students enrolled in advanced mathematics and science courses as of June 1988:

3 or more years of math	144
advanced math	268
3 or more years of science	93
chemistry	328
physics	41

Jordon High School:

Number of high school graduates: Class of 1988 - 199

Number of 1986 graduatss completing A-F subjects: 9

Number of high school dropouts: 1986/87 Data - Annual Average 24.9%, Three year Average 55.4%

Number of students enrolled in advanced science and mathematics courses as of June 1988:

3 or more years math	75
advanced math	94
3 or more years science	34
chemistry	59
physics	0
Advanced science	471

Locke High School:

Number of high school graduates: Class of 1988 - 247

Number of 1986 graduates completing A-F subjects: 23

Number of high school dropouts: 1986/87 Data - Three year Average 66.1%

Number of students enrolled in advanced science and mathematics:

3 or more years of math	67
advanced math	151
3 or more years of science	43
chemistry	132
physics	25
advanced science	262

Washington High School:

Number of high school graduates: Class of 1988 - 629

Number of 1986 graduates completing A-F subjects: 44

Number of high school dropouts: 1986/87 Data - Three Year Average 36.2%

Number of students enrolled in advanced science and mathematics:

3 or more years of math	185
advanced math	560
3 or more years of science	60
chemistry	466
physics	124
advanced science	927

Appendix B: Contra Costa College/Richmond Unified School District

A. School Population and Demographic Information

Key W White A/PA Asia/Pacific Islander
B Black F Filipino
H Hispanic AI/AN American Indian/Alaskan Native
* less than 1%

Junior High Schools 1988/89 Ethnicity

	W	B	H	A/PA	F	AI/AN	Total
Crespi	46%	31%	9%	8.5%	4%	*	1,099
Helms	13%	46%	27.5%	11%	2%	*	1,045
Pinole	48%	19%	10%	10.5%	12%	*	817
Portola	18%	65%	3.5%	12%	1%	*	838

High Schools 1987/88 (from CBEDS)

De Anza	49%	30%	7%	8%	4%	*	1,420
El Cerrito	30%	47%	5%	16%	1%	*	1,575
Kennedy	14%	65%	11%	7%	1%	*	1,259
Pinole	60%	12%	7%	10%	11%	*	2,009
Richmond	19%	37%	25%	14%	3%	*	1,295

De Anza High School:

Number of high school graduates: Class of 1988 - 290

Number of graduates completing A-F subjects: 79

Number of high school dropouts: 1986/87 Data - 3-year Average 7.4%

Number of students enrolled in advanced mathematics and science courses as of June 1988:

3 or more years of math	151
advanced math	177
3 or more years of science	81
chemistry	83
physics	11
advanced science	219

El Cerrito High School:

Number of high school graduates: Class of 1988 - 358

Number of graduates completing A-F subjects: 124

Number of high school dropouts: 1986/87 Data - 3-year Average 12.7

Number of students enrolled in advanced mathematics and science courses as of June 1988:

3 or more years math	223
advanced math	337
3 or more years science	133
chemistry	216
physics	80
advanced science	420

Kennedy High School:

Number of high school graduates: Class of 1988 - 255

Number of graduates completing A-F subjects: 57

Number of high school dropouts: 1986/87 Data - 3-year average 14.1

Number of students enrolled in advanced mathematics and science courses as of June 1988:

3 or more years	144
advanced math	268
3 or more years	93
chemistry	328
physics	41
advanced science	595

Pinole High School:

Number of high school graduates: Class of 1988 - 513

Number of graduates completing A-F subjects: 123

Number of high school dropouts: 1986/87 Data - Three-year average 8.8

Number of students enrolled in advanced mathematics and science courses as of June 1988:

3 or more years of math	239
advanced math	331
3 or more years of science	141
chemistry	132
physics	49
advanced science	517

Richmond High School:

Number of high school graduates: Class of 1988 - 208

Number of graduates completing A-F subjects: 22

Number of high school dropouts: 1986/87 Data - Three-year average 24.6

Number of students enrolled in advanced mathematics and science courses as of June 1988:

3 or more years of math	104
advanced math	91
3 or more years of science	42
chemistry	81
physics	18
advanced science	65

Appendix J

University and College Opportunities Program

Preliminary Evaluation
University and College Opportunities
1987-88

Section 1 of this report summarizes 1987-88 school data for schools thought to be operating UCO programs. Section 2 summarizes descriptive information from an earlier evaluation, a copy of which is attached (Ric Brown, Ed.D. "The University and College Opportunities (UCO) Programs in the State of California: An Evaluation Report," n.d.) Since 1987-88 program data are available for only 9 of 34 secondary UCO programs, they will not be reported at this time. The 1987-88 evaluation, currently in progress, will provide more complete and descriptive information for next year's evaluation.

Section 1: School Population Summaries

UCO programs are concentrated in schools with large proportions of students from groups underrepresented in post secondary education. A comparison of data from 1987-88 and 1988-89 CBEDS suggests that larger numbers of senior students from these groups are graduating from high school and that larger numbers have completed a-f courses. In addition, more students are taking college admissions tests.[1] Following are summaries of data from CBEDS. Tables containing school level data are attached.

Figure 1: Ethnic Distribution in Secondary Schools with UCO Projects and in All California Schools: 1987-88

	Project Schools		California	
	N	%	N	%
American Indian	759	1.1	12,115	0.9
Hispanic	19,688	28.9	343,380	26.0
Black	16,860	24.7	117,181	8.9
Other	30,841	45.3	845,718	64.1
Total	68,148	100%	1,318,394	100%

Figure 2: Ethnic Distribution of High School Graduates in UCO Schools and In All California High Schools: 1987-88

	Project Schools		California	
	N	%	N	%
American Indian	98	0.8	1872	0.8
Hispanic	2,451	19.8	49,040	19.7
Black	3,525	28.5	19,444	7.8
Other	6,302	50.9	79,162	71.8
Total	12,376	100%	249,518	100%

[1] Educational Testing Service provides school level test score data and data about test takers' sex and ethnicity. Since data are reported for every test administered, there may be duplications. For example, some students take the test repeatedly in an attempt to raise their scores, to meet admission standards for athletic scholarships, for example.

Figure 3: Ethnic Distribution of High School Graduates Meeting a-f Requirements: 1987-88

	Project Schools	
	N	%
American Indian	73	1.9
Hispanic	595	15.8
Black	856	22.8
Other	2,231	59.4
Total	3755	100%

Figure 4: Ethnic Distribution of 10th, 11th, and 12th Grade Drop Outs in UCO Schools and All California Schools: 1987-88

	Project Schools		California	
	N	%	N	%
American Indian	39	0.8	762	1.09
Hispanic	1,532	33.0	28,746	37.1
Black	1,420	30.6	10850	14.0
Other	1,568	33.8	37,225	48.0
Total	4,559	100%	77,583	100%

Figure 5: Ethnic Distribution of Students Enrolled in Advanced Math and Science Courses in Project Schools and All California Schools: 1988-89

	Project Schools		California	
	N	%	N	%
American Indian	60	0.4	762	1.09
Hispanic	1,683	12.5	28,746	37.1
Black	2,217	16.4	10850	14.0
Other	8,324	61.6	37,225	48.0
Total	12,284	100%	77,583	100%

Section 2: Program Participants and Services Provided

Students are referred to UCO by counselors, teachers, and their own interest in attending college. Parents also refer students to UCO programs. Eligible participants include students who have been successful in math and science, who meet achievement criteria, including minimum GPA, a sufficiently high score on an proficiency examination, or who have achieved above grade level scores in reading, language, and math. Although UCO guidelines provide for serving females underrepresented in math and science, as well as ethnic minority students underrepresented in post secondary education, most programs emphasize service to the latter group.

UCO students are encouraged to take a-f courses. Individual contracts, group enrollment in a-f courses for mutual support, and cooperative learning techniques are some of the strategies programs use to increase the level of success among program participants.

UCO also provides instructional support programs, including after school tutoring and enrichment, in which students learn adjunct study skills, including test taking, note taking, and listening. All secondary programs provide SAT preparation, and assistance with college applications. (Some UCO programs operate in feeder junior high schools and elementary schools.) Some programs require students to attend tutoring and enrichment activities. UCO preograms also recognize students for their work and participation, with leadership training, academic merit awards, and contests. Counseling and advising cover academic planning, college information, and foster alliances with college outreach programs.

Staff development, both that of program leaders and their fellow faculty members, is an important element in most UCO programs. UCO concentrates on raising expectations among teachers for the capacities of ethnic minority students, while UCO leaders attend conferences in California and other states to keep up to date on college advising, test preparation training, and developments in financial aid, etc.