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A study of California Community College student retention and persistence with Extended Opportunity Programs and Services (Eop&S)

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**A STUDY OF CALIFORNIA COMMUNITY COLLEGE STUDENT
RETENTION AND PERSISTENCE WITH EXTENDED
OPPORTUNITY PROGRAMS
AND SERVICES
(EOP&S)**

by

Leonard M. Crawford

**Bachelor of Arts
Humboldt State University, CA**

**Master of Arts
Humboldt State University, CA**

**A dissertation submitted in partial fulfillment
of the requirements for the**

**Doctor of Education Degree
Department of Educational Leadership
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is approved in partial fulfillment of the requirements for the degree of

Doctor of Education

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ABSTRACT

A study of California Community College Student Retention and Persistence with Extended Opportunity Programs and Services (EOP&S)

by

Leonard M. Crawford

**Dr. Paul Meacham, Dissertation Committee Chair
Professor of Educational Leadership
University of Nevada, Las Vegas**

This research analyzed a select number of Extended Opportunities Programs and Services (EOP&S) within the California Community College system. Student perceptions and self reported attitudes were obtained through survey techniques from a select number of EOP&S programs based upon persistence trends of students from a recent four-year period. More specifically, these student trends were analyzed at three different levels of persistence, i.e., highest, median, and lowest. The respective groupings were surveyed to determine qualitative elements of EOP&S program services students associate with their persistence.

The findings basically indicate that the consistent qualitative elements of programs services that EOP&S students associate with their persistence include nine supportive services and program activities: Book Service; Grants; Academic Counseling; Education

Plans; Priority Registration; Orientation; Tutoring; Personal Counseling and Mutual Responsibility Contract. Overall, the top five services EOP&S students report as significant to their persistence either as important, influential or beneficial were: Book Service, Grants, Academic Counseling, Education Plans and Priority Registration.

This study was focused on the special program Extended Opportunity Programs and Services, (EOP&S) which serves emerging low-income populations. The researcher noted the fact that this clientele will soon become the new majority in many community colleges across the nation. More specifically, the study substantiated that the EOP&S program in California provides a wide variety of support services that increase rates of persistence but not retention.

In general the EOP&S programs were found to exhibit an atmosphere of inclusion that appears to be associated with persistence. The researcher focused the concept of inclusion on the EOP&S program activities that help to integrate students with the college environment. When looking at the patterns pertaining to the categories of integration, involvement and connection, the research indicated that the EOP&S program was ranked far ahead of other departments on campus in providing these key elements of persistence.

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“It took a whole village.”

CHAPTER 1

INTRODUCTION

“Education is the passport to the future” (Malcolm X).

The retention of students continues to be a significant challenge for colleges throughout the country. According to Tinto & Goodsell (1994), more than 40 percent of all students in America who begin a four-year college fail to earn a degree, and nearly 57 percent of all dropouts from four-year institutions leave before the start of their second year. This statement provides a perception that a significant number of college students who attend four-year institutions do not persist. However, little is known about two-year higher education institutions because the majority of past research concerning college student retention and persistence has concentrated on four-year institutions.

Opps & Smith (1995) surmised that as minority students become a larger proportion of the pool of high school graduates, finding ways to increase their recruitment into postsecondary education would become increasingly important (p. 2). Although two-year colleges most often are the first entry point for many African Americans and Latino Americans, it does not appear that there has been equal success in retention and persistence for these groups (Rodriguez, 1992). In addition, as community college student populations continue to deviate more and more from the norm, the system has served them less and less successfully.

The Council of Chief State School Officers (1987) believed that, in our grand experiment in universal free public education in America, we have fashioned a system that works relatively well, especially for those who are White, well motivated, and from stable middle-to upper-income families. According to the 1989 American Council on Education, "...our future as a nation depends on our ability to reverse these downward trends of minority achievement in education and ensure that our campuses are as diverse as our country. We cannot afford to defer the dream of full participation in education by all citizens; it is not only unjust, but unwise" (American Council on Education, 1989, p. 4).

There are large numbers of federally funded Student Support Services (SSS) programs throughout the nation, which are intended to deal with access for minorities and the educationally and economically disadvantaged. For example, the National Study of Student Support Services (1997) reported that, "there are currently over 700 Student Support Services (SSS) projects serving 165,000 college students. The program is targeted to serve students who are from low income families, students with disabilities, or where neither parent has graduated from college." For California Community Colleges, the Extended Opportunity Programs and Services (EOP&S) provides, low income, educationally disadvantaged students with a variety of support services much like those of the federally funded Student Support Services (SSS) programs around the nation. More specifically, EOP&S programs serve 80,000 California Community College low-income, educationally disadvantaged students annually.

However, as Tinto (1993) cautioned, while these retention programs have helped some students to complete their college education, their long-term impact on retention

has been surprisingly limited, or at least more limited than is necessary. Perhaps most important is that most retention programs have done little to change the essential quality of the academic experience for most students, especially during the critical first year of college. In addition, the gap between the participation rates of White and minority students is growing, and attrition is a major problem for both populations (American Council on Education, 1989).

In this current era of educational accountability, many questions arise concerning the measurable success of special programs, and the lack of specific relevant outcome data. Governmental policy makers want to know if special programs are providing services that impact student performance in a positive manner, i.e., retention from term to term, persistence to graduation, and/or transfer to four-year institutions (Fetler 1992). Such information can be helpful in determining what future levels of funding would enhance success for higher education institutions in the twenty-first century, especially with the projections of consistently increasing levels of enrollments among minority students through the new century.

Statement of the Problem

The purpose of this study is to determine what supportive services provided by California Community College EOP&S programs are perceived to impact the retention and/or persistence of disadvantaged minority enrolled EOP&S students. The specific problem for California is the historically low level of retention and persistence rates of minorities and specifically, Latino and African American males enrolled in community colleges statewide. We find today, nearly one quarter of those participating in higher

minorities and specifically, Latino and African American males enrolled in community colleges statewide. We find today, nearly one quarter of those participating in higher education in America are persons of color. However, as we approach the twenty-first century, the issue of equal access to higher education with success for minorities remains one of the most critical unresolved dilemmas for our nation. Overall, the problem is to identify what specific EOP&S program activities are perceived by EOP&S students to relate to and/or impact the persistence and retention of minority disadvantaged community college students in California. Demographic research indicates a likelihood of an increase in minority student population numbers for the next century, yet the current organizational culture of higher education is not prepared nor equipped to improve the persistence and retention rates of minority disadvantaged community college students.

More specifically, this study will primarily focus on community college student support service variables thought to be significantly associated with high levels of disadvantaged minority student retention and persistence rates. The secondary purpose of this study is to determine if there is a significant relationship between EOP&S program services provided to disadvantaged low-income minority students and academic persistence and/or retention. However, the overall purpose of this study is to identify specific California Community College EOP&S program activities that students associate with contributing to their retention and/or persistence in community college.

In addition, this study will investigate the possible correlation between funding levels of specific EOP&S programs and the support services identified as contributing to high levels of retention and persistence and positive student academic outcomes.

Definitions

The following definitions shall function as the operational foundation for certain terms to be utilized for this study. The definitions will be applied to establish clarity of purpose and common understanding of the terminology within this study.

- **EOP&S:** Extended Opportunity Programs and Services (EOP&S) is a California, specially funded, statewide student service program, designed to serve low-income educationally disadvantaged community college students. More, specifically, EOP&S is designed to recruit and serve students who are handicapped by social, economic and language barriers and to encourage their continued enroll in community college.
- **Persistence:** The maintenance of continued California community college enrollment for two or more semesters and/or completion of a degree/certificate or transfer to a four-year college.
- **Retention:** The maintenance of continued California community college enrollment in classes throughout one semester or term.
- **EOP&S Student characteristics:** All EOP&S students are required to be low-income, i.e., having and annual income of less than \$17, 000 for a family of four or \$7,500 for a single student. In addition, EOP&S students must be educationally disadvantaged, i.e., low college preparation skills, low high school achievements (G.P.A less than 2.5), have received remedial or pre-collegiate instruction, be a member of an under-represented ethnic group, be a first generation college student or student's parents are non-English speakers.

- **Student Academic Outcomes and Achievements:** Measurable student outcomes and academic achievements as listed below:
 - Community College Grade Point Average (GPA);
 - Annual Units attempted and completed;
 - Degree applicable classes and Transfer Units completed;
 - A.A. or A.S. Degree or Certificate attainment;
 - Obtain Transfer Ready status to 4-year college.
- **Data Trends:** California Community College statewide data trends, which reveal individual campus levels of persistence and retention for EOP&S students and full-time non-EOP&S students for academic years from 1993-94, 1994-95, 1995-96, 1996-97 and 1997-98.
- **Community College:** A public two-year college accredited to offer basic skills instruction; vocational certificates, Associate Arts and Associate Science degrees, and lower division transfer courses.

Significance of the Study

The survival of the so-called “new majority” in higher education is predicated upon the transformation of the organizational culture of higher education institution. For example, Rendon (1994) contends that, African American, Mexican American, Puerto Rican, American Indian, and Asian American students appear to be emerging as a new student majority on some campuses. Therefore, if the transformation of the organizational culture of higher education to improve the academic achievements of special populations and the “new majority” is not done in a systematic, comprehensive and timely manner the promise of educational equity will be in jeopardy. America may

find its' higher educational institutions involved in the systematic exclusion of the new majority and possibly practicing academic apartheid in the twenty first century.

Nora (1993) asserts that if it were not for community colleges most minority students in higher education would probably not be enrolled in college. In addition, the overall findings continue to confirm what most researchers and administrators already know: minorities remain disproportionately underrepresented in all fields of undergraduate education, and graduate and professional schools. In addition, Nora (1993) contends, "no matter how you slice it, the fact remains that things have not changed much for minority students in higher education. Whether descriptive, trend analysis, or multivariate research is used, the results reflect the same dilemma after all these years" (p. 226).

Fink & Ansel (1992) believe demographic trends suggest that the pool from which colleges and universities draw will continue to be less homogeneous in the future. While the traditional college-age population (18 to 24 year-olds) will be declining through the rest of this century, the minority proportion of that population will increase, particularly in the western United States, California, Texas, and even in New York City. Since the larger minority groups (Blacks and Latinos) have lower college-going rates than Whites, as these groups increase proportionately in the 18 to 24 year-old population, overall college going rates may decline for this age group. Therefore, a concerted effort will be necessary to recruit minorities to fill in the gaps of traditional college-age enrollment. Young minority students will be more likely to enroll in lower cost institutions unless higher cost institutions offer greater financial incentives or earning opportunities (Fink & Ansel, 1992).

In this decade of educational accountability, many questions arise concerning the measurable success of special support program participants in general and the lack of relevant outcome information. The questions simply stated asks, are special programs providing services that relate to positive student performance outcomes? Are special programs having a positive effect on student success in the way of persistence to graduation, retention from term to term, credible grade point averages, and educational goal attainment?

According to Pascarella and Terenzini (1998), "higher education practitioners and policymakers, however, cannot afford to spend another decade in ignorance of the educational influence of a set of institutions that educate nearly 40 percent of our students, namely our community colleges" (p. 157). According to Nora (1993), "more than half of the Hispanic student population attending college enter at two-year institutions and nearly half of all African American students are enrolled in community colleges" (p. 213).

In this climate of constant attacks upon affirmative action and the call for more efficient accountability systems, higher education has the opportunity to transform the college learning environment to better retain students, especially those most at-risk. "Instead of blaming the student for failing to fit the system, we must design and implement a new structure that provides appropriate educational and related services to those most at risk" (The Council of Chief State School Officers 1987, p. 5).

Tinto (1998) proposed, "we should direct our studies to forms of practice and let the knowledge gained from those studies inform our theories of persistence" (p. 175). Therefore, it is imperative that the elements of persistence and retention be examined and

revealed to enhance the achievements and success of minority and disadvantaged community college students.

The transformation of higher education is inevitable, yet the success of the institution depends upon the success of its students' matriculation. With the further formulation of empirical research on the successful elements of retention and persistence for minorities and the disadvantaged, there will be a greater possibility of creating a pluralistic and welcoming educational environment for all students, resulting in a more efficient and effective higher educational system.

To improve the effectiveness of community college education and higher education in general, it is necessary to determine to what extent special support program services relate to positive student performance and outcomes, i.e., persistence, retention, grade-point average and/or transfer to four-year institutions. Additionally, a determination should be made as to how the levels of student performance outcomes for special support program participants' compare with student performance outcomes for full-time traditional student populations who are not enrolled in special support programs.

A review of literature reveals that, most retention research deals with characteristics of persisters and non-persisters (Brawer, 1996). Pascarella & Terenzini (1998) believe, community colleges are major players in the national system of postsecondary education; but with a few notable exceptions in the literature, little is known about what impact they have on students. More specifically, Pascarella & Terenzini (1998) state that, "four of every ten American college students are enrolled in community colleges. It would be a very liberal estimate to say that even 5 percent of the

studies reviewed, How College Affects Students, focused on community college student's" (p. 155).

When we analyze the efforts of affirmative action and other special programs, it is important to look beyond simple access to the issue of achievement and success. The door to higher education is open, but has there been a significant dearth of studies related to the incentives and interventions available to the disadvantaged and minority students who exhibit the qualities and the power to enhance their own retention and/or promote their persistence? The overall impetus for gathering a breadth of information concerning retention and persistence issues, specifically for disadvantaged and minority students, rests on the belief that resolution of the attrition of special populations will provide solutions that can be applied to the general population and improve the college environment for all.

Fink & Ansel (1992) believe that, "understanding demographic trends is the first step higher education institutions should take to respond effectively to changes and potential changes in enrollment . . . The possible effects of these changes are that colleges and universities will continue to draw their students from a different pool of older and ethnically more diverse applicants" (p. 3). In other words, successful community college program activities need to be identified and qualified for future use and reference in response to projected enrollment trends. "Colleges which for the most part are structured for White traditional student populations, need to be concerned not only with what students do to get involved, but also with the issue of what institutions can do to promote student involvement" (Rendon 1993, p. 17). As the new college applicant pool becomes more diverse, the current traditional student service program activities may remain

ineffective, as the attrition rate is expected to rise the success rate of community colleges may also decline.

Conceptual Framework

Past research and enrollment data analysis has increased the overall understanding of persistence and retention models that have developed in the past two decades. According to Porter (1992) one of the major areas of influence on persistence is the college environment and the student's experience in that environment. The most prominent and commonly used models of institutional effects are Tinto's (1975) academic and social integration model and Astin's (1977) involvement model. In general terms, Tinto's model indicates, holding all else equal, the major determinant of persistence is how well the student is integrated into the college (Porter 1992). Astin's model is related somewhat but not in the same manner. Astin does not stress the need for full integration, but rather involvement. "Students can be alienated in certain campus arenas, but still persist because their ties in other areas (such as sports, academic, or fraternities /sororities) provide sufficient involvement to maintain a connection" (Porter 1992, p. 3).

The California Community College EOP&S programs have several supportive services that provide opportunities for student integration and involvement. The combination of services mandated by state regulation provides a cross section of activities that attempt to include the key elements of persistence and retention models currently in use. For example, the specific program standards for the EOP&S program include the following services:

Outreach/Recruitment -

Orientation -

Registration assistance -

Needs assessment –

Mandatory multiple counseling contacts -

Progress monitoring -

Exit interviews-

Basic skills and Special instruction -

Transition services, i.e., Transfer and Career guidance or job placement -

Tutoring –

Ethnic diversity staff training -

Grants and emergency loans-

Cultural events -

Childcare -

Book service –

Peer advising -

Education plan development -

Mentoring.

The wide variety and potential combinations of EOP&S program services appear to provide several opportunities for integration and involvement from both the academic and social arenas as indicated in student attrition model research.

According to Bean (1982) “models are important because they tie theory to specific situations. . . While a theory can be refuted by a single exception, a model can be retained for as long as it is useful” (p. 18). More specifically, a model of student persistence is a representation of the elements and factors presumed to influence

decisions not to drop out of an institution. “The model identifies the interrelationships among the various factors and the relationships between these factors and the dropout decision” (Bean, 1982, p. 18). One approach here has been to produce more descriptive atheoretical studies attempting to identify those factors that would best predict which students would stay and which would drop out. In general, these factors have fallen into three categories: academic, demographic and financial factors. However, one is left with the correlates of attrition, or factors that vary with levels of persistence. According to Bean (1982), an explanation of why these persistence factors work is still lacking. “The value of such studies is much like that of other descriptive atheoretical studies, but their outcomes focus on strategies for admission, not on strategies for retention” (Bean, 1982, p.19).

Tinto (1975) produced what is the most widely cited model of the student attrition process and the most widely tested in empirical studies (Bean, 1982, p. 21). In the social system, institutional commitment is expected to produce peer group and faculty interaction, which leads to social integration, which in turn increases institutional commitment. “Institutional commitment is also expected to reduce the likelihood of dropping out” (Bean 1982, p. 21).

In a 1980 article, Patrick Terenzini described three basic designs associated with the study and research on college student attrition. It is important to understand the details of how to review and analyze the attrition phenomenon, because most administrators and decision makers are not content with simply knowing the rate and quantity of college’s student dropouts. Terenzini (1980) understands that higher education administrators may also want information about why students withdraw. More

specifically, Terenzini (1980) acknowledges that, if campus officials are to conduct useful attrition studies--or be informed consumers of the research of others--there seems to be some need for a comparison of the relative strengths, weaknesses, costs and benefits of the various designs and methods available for studying attrition. Through his research Terenzini has identified three basic designs for studying college student attrition; autopsy, cross-sectional, and longitudinal.

Autopsy study design

The autopsy study design, sometimes called retrospective or post hoc, generally would involve an after-the fact survey of the reasons dropouts themselves give for dropping out of school. According to Terenzini (1980), under this design students who have already dropped out are identified and sent a questionnaire asking them to describe why they left school, their experiences, their evaluations of institutional programs and services, their current activities, and their future educational plans among others.

Cross-Sectional study design

This study design refers to the collection of data from currently enrolled students at a single point in time, probably late in an academic year. Terenzini (1980) indicates that information is sought concerning such things as students' educational and personal goals, frequency of contact with faculty, use of various student supportive services, attitudes toward academic programs and any other variables thought to be influential in student attrition/retention decisions. In addition, after the start of the next academic year, sample subjects who are continuing students and those who are dropouts are identified and compared on the variables for which data have been collected.

Longitudinal study design

Terenzini (1980) surmised that this design involves the collection of information from the same students at two or more points in time. Under this plan, data on entering students' social and educational backgrounds, expectations of college, educational and career goals, among others are collected before (or at the time of) the students' matriculation. Data related to students' college experiences and their attitudes toward those experiences are then collected near the end of the academic year from respondents to the initial survey. After controlling for pre-college differences, members of the original sample or cohort who have dropped out at any time or perhaps dropped out and returned are then compared with their non-dropout peers on the college experience and attitude variables.

According to Terenzini (1980), response rates for longitudinal studies as with cross-sectional designs, are likely to be higher than those obtained in an autopsy study. More specifically, response rates in autopsy studies as indicated by Terenzini (1980) are notoriously low, not infrequently below 30 percent or 40 percent. In addition, cross-sectional design has a clear advantage over the autopsy plan in that it provides for the direct comparison of dropouts with non-dropouts on the same measures taken at the same time and under similar conditions. Terenzini (1980) also indicates that this cross-sectional design involves the measurement of potential attrition related experiences and attitudes at the time they are presumably exerting their influence. However, as with the cross-sectional design, the longitudinal plan permits comparisons of various kinds of dropouts with non-dropouts along with the added advantage of permitting the extensive control of pre-college differences between the two groups. Terenzini (1980) believes that it is the ability to take pre-college differences into consideration that makes the

longitudinal attrition study design by far the most powerful and attractive of the three described here.

Astin provides another conceptual framework for studying student outcomes related to persistence called the “I-E-O model,” or input-environment-outcome. The I-E-O model is a conceptual guide for studying college student development. Astin (1993) has indicated that: inputs (“I”) refer to the characteristics of the student at the time of initial acceptance to the college; environment (“E”) refers to various college programs, campus policies, faculty, peers and educational experiences of which the student is exposed to; and outcomes (“O”) refers to the student’s achievements after being affected by the college environment. According to Astin (1993), “change or growth in the student during college is determined by comparing outcome characteristics with input characteristics” (p.7). More specifically, Astin (1993) believes that the basic purpose of the I-O-E model is to assess the impact of certain campus experiences by determining whether students grow or change differently under varying campus conditions. However, Astin (1993) believes that a key problem with the model is the need to clearly specify the relevant outcomes, inputs, and environmental conditions that are to be evaluated and assessed.

The basic concept here is, “once a researcher has decided upon a definition of dropout, he or she is left with the decision of what variables to measure and what model of relationships among the variables to use” (Bean, 1982, p. 18). In other words, the direction of the research at this time must be clearly stated and focused. Bean (1982) understands, “to evaluate the effectiveness of programs and services designed to reduce attrition, the synthetic model provides appropriate means” (p. 31). More specifically,

“the institutional researcher would need to introduce variables related to the extent and type of contact with the service or program under the category of ‘objective interaction with the organization’ ” (Bean 1982 p. 31). The goal of this study is to examine the objective interaction of students with the organization, i.e., the EOP&S program.

“The organizational variables are indicators of the student’s interaction with the organization. They are intended to reflect the respondent’s experience within the organization (for example the amount of help an advisor gives in specific areas). These variables include the structure variables, that is variables that can be administratively manipulated” (Bean, 1982, p. 27). The general organizational variables for this study involve EOP&S program activities which may include the following but not limited to, namely: counseling, tutoring, book services, peer advising, extended orientation, registration assistance, and monitoring mid-term student progress.

The dependent variables for this study are persistence and retention and the independent variables are the organizational variables, i.e., EOP&S participation, non-EOP&S participation, and the programs' activities and/or services received. Overall, for purposes of this study, a descriptive study approach and Tinto’s synthetic model of integration with the cross-section attrition study design and Astin’s I-E-O model to determine what factors are related to minority and/or disadvantaged student retention and persistence will be utilized. Specifically, for this study in relation to the Astin I-E-O model: input refers to the EOP&S student who is educationally and economically disadvantaged; the environment refers to EOP&S program activities of which the student is exposed to; and outcomes refers to the student’s achievements after being affected by the EOP&S program environment.

Research Questions

- Do EOP&S students persist at a higher rate than non-EOP&S students enrolled full-time at the same community college?
- If EOP&S students persist at a higher rate than non-EOP&S students enrolled full-time at the same community college, what is the number and/or pattern of involvement in general program activities and elements that EOP&S students identify as contributing to their persistence in community college?
- What specific program activities do EOP&S students identify as contributing to their persistence?
- Are EOP&S students retained at a higher rate than non-EOP&S students?
- If EOP&S students are retained at a higher rate than non-EOP&S students, what general program activities do they (EOP&S students) identify as contributing to their retention?
- What specific program activities do EOP&S students identify as contributing to their retention?
- Do higher EOP&S program funding levels correlate with higher persistence levels?
- Do higher EOP&S program funding levels correlate with higher student outcomes?

Research Design

The conceptual framework for this study is based on a descriptive, synthetic model of attrition combining both Astin and Tinto concepts of integration and involvement. The attrition research design will be cross-sectional in nature. The research will utilize statewide data collected by the Management Information Systems of the California Community College Chancellor's Office. More specifically, the researcher will examine the data trends of all 106 California Community College EOP&S programs to determine and select for further study the top three EOP&S programs that exhibit the

highest levels of student retention and persistence. In addition, the research will examine the data trends of all 106 California Community College EOP&S programs to determine and select for further study the three median level of student retention and persistence as well as the top three and the bottom three EOP&S programs that exhibit these contrasting levels of student retention and persistence. These three contrasting segments of the population sample, i.e., top three, median three and the lowest three community college EOP&S programs in relation to their respective retention and persistence rates, will be examined more closely using follow-up surveys applying a cross-sectional attrition study design. According to Terenzini (1980), information is sought concerning such things as students' educational and personal goals, frequency of contact with faculty, use of various student supportive services, attitudes toward academic programs and any other variables thought to be influential in student attrition/retention decisions. Since selected programs will have demonstrated examples of high, median and/or low levels of student persistence and retention consistently over a three-year period, the added data collected by way of the follow-up student surveys, a comprehensive analysis will result. More specifically, the EOP&S students who persist and are retained in the top three community colleges will have excelled and exhibited high levels of success as these factors will be surveyed to determine what qualitative elements of programs services were associated with their retention and persistence. Thus, the development of solutions to the dilemmas posed by low student persistence and retention will be approached through data trend analysis and a form of cross-sectional post-hoc survey research methodologies as well. The comparison of the three different levels of persistence and retention may provide fundamental evidence of key persistence and retention interventions.

CHAPTER 2

LITERATURE REVIEW

**“If we do not change the direction we are going
we are likely to end up where we are headed.” (Chinese Proverb)**

Conceptual Factors influencing Attrition

A literature review covering the general aspects of college student retention and persistence theory will help to identify a few of the factors that influence college student attrition. In addition, this literature review will provide a breadth of supportive realities associated with the elements and milieu of retention practices for community college students. According to the 1989 American Council on Education, the gap between the participation rates of White students and minority students is growing, and attrition is a major problem for both populations. However, the American Council on Education (1989) believes that our future as a nation depends on our ability to reverse these downward trends in minority achievement in education and ensure that our campuses are as diverse as our country. We cannot afford to defer the dream of full participation by all citizens; it is not only unjust, but also unwise (American Council on education, 1989, page 4). In addition, Opps & Smith (1995) believe that as minority students become a larger proportion of the pool of high school graduates, finding ways to increase their recruitment is becoming an increasingly important concern in higher education (p.2).

Moreover, the future of our nation is inextricably tied to an educated population that can contribute to the labor force and the economy, as well as to our national well-being. If one-third of the nation will be composed of minority persons by the year 2010, as the demographers predict, minority citizens must be included in the economic, political, social, and educational mainstream (American Council on education, 1989).

The Association of American Colleges and Universities (1996) has implicated the nations' history of racism as part of the problem even though, we find today that nearly one quarter of those participating in higher education are persons of color. However, as we approach the twenty first century the issue of equal access to higher education and success for minorities remains as one of the more urgent unresolved dilemmas our great nation continues to face.

The Impetus for Retention Programs

According to Garcia (1997), the debate over affirmative action policies began with the implementation of Title VII. For some, the implementation of affirmative action programs was viewed as a catalyst, which would play a significant role in diversifying our institutions of higher learning. In addition, Garcia (1997) views the impetus for affirmative action as, "the vehicle to create campuses, which transcend past and present injustices. Clearly, those involved in higher education must do a better job of educating both the public and policymakers about the importance of an inclusive society, not only for the benefit of people of color, but for us all." O'Neil (1975) contends, "although full equality of citizenship has not yet been achieved, equal access to higher education and to the professions does seem to exist, and that is the critical factor for the present purposes" (affirmative action). O'Neil (1975) goes on to ask the all-important question. For what

groups, then, might a preference reflect a compelling interest? “Clearly, the strongest case can be made for preferring or giving special consideration to those groups that are not only underrepresented in higher education but also disproportionately (a) are victims of overt racial or ethnic discrimination; (b) are socio-economically disadvantaged; (c) are excluded by standardized tests and other entrance criteria; and (d) are graduates of crowded, run down, and poorly staffed public schools where intense segregation persists. Most Blacks, Mexican-Americans, Puerto Ricans and American Indians meet these criteria. . . Those groups clearly present the most compelling case for special consideration” (O’Neil 1975, page 150).

In an effort to define affirmative action and focus on the impetus for retention in higher education let us review the comments of President Clinton who spoke to the purpose and meaning of affirmative action in the New York Times, July 20, 1995:

“Our search to find ways to move more quickly to equal opportunity led to the development of what we now call affirmative action. The purpose of affirmative action is to give our nation a way to finally address the systemic exclusion of individuals of talent, on the basis of their gender or race, from opportunities to develop, perform, achieve, and contribute. Affirmative Action is an effort to develop a systemic approach to open the doors of education, employment, and business development opportunities to qualified individuals who happen to be members of groups that have experienced long-standing and persistent discrimination...”

Others emphasize a future orientation; for example, Garcia (1997) defines affirmative action as “programs designed to ensure full participation by those who have been historically excluded from colleges, universities and the work force.” As the arguments about affirmative action continue to escalate and passions run high, it is imperative to step back, review the fundamental issues, and take a hard look at the

questions that underlie the current debate (Garcia 1997). To illustrate the situation we must consider the statutes that relate closely to the issues of appropriate affirmative action policy and implementation. In plain terms, affirmative action is based on two fundamental statutes: The fourteenth amendment (equal protection under the law) and Title VII of the Civil Rights Act of 1964 Section 601.

The history and impetus for retention programs must include the review of elementary school concerns, and activities developed for Minority youth-at-risk students. For example, the Council of Chief State School Officers stated back in 1987, that the class of 2000 started Kindergarten in the fall of 1987. "Who among them should drop out by 2000? None! Nevertheless, if conditions continue as today, one out of four will be lost. One by one, each of those children must be guided during the next thirteen years along the path to graduation. This is imperative for them and for our nation."

In summary, the Council of Chief State School Officers statement indicates the level of operation in 1987. For instance, sixty-nine examples of successful at-risk programs were submitted by the states to the council. The large majority of the programs focused on dropout prevention, at either the high school or pre-high-school level and early-childhood education. A variety of program approaches exist within each type of program focus, for example, high-school dropout-prevention programs include alternative high schools or programs within schools, extended-day programs, and programs involving the business community. Dropout-prevention programs at the pre-high-school level included academic programs, programs of guidance and support, and in-school suspension programs.

The Council of Chief State School Officers (1987) believes that, we sometimes seem to say to minority students and the disadvantaged, “We’ve provided the system. It’s not our fault if you don’t succeed” (page 6). However, the general approach and success oriented attitude of the Council of Chief State School Officers can be best illustrated by their model legislation of operational guarantees in statutory form: Statute 2. (a) “...requires that schools follow practices that generally result in success with students. Such ‘promising’ practices would likely include appropriately certified staff, planned instructional strategies, adequate supplies of up-to-date textbooks and other materials, affirmative efforts to involve parents at home and at school, safe facilities, and a system of school-based administration with greater flexibility to make decisions” (page 7).

In comparison, Edmonds (1986) indicates that the fact that many poor and minority children fail to master the school curriculum does not reflect deficiencies in the children but rather inadequacies in the schools themselves. More specifically, Edmonds states:

“variability in the distribution of achievement among school-age children in the United States derives from variability in the nature of the schools to which they go. Achievement is therefore relatively independent of family background, at least if achievement is defined as pupil acquisition of basic school skills (p. 94-95).”

In addition, Edmonds’ research findings indicate that, five factors are typically present in effective schools and absent in ineffective ones: (a) strong leadership by the

principal; (b) an explicit commitment to educational goals; (c) a calm and cared-about school atmosphere; (d) teachers' acceptance of responsibility for each pupil's progress; and (e) frequent monitoring of that progress by means of objective achievement tests."

Nora (1993) observed that, half of all Black and Hispanic children do not continue on to high school after graduation from junior high. Moreover, while half of all minority children are lost between junior high and high school, those that do enroll in secondary schools do not necessarily graduate. However, Nora (1993) also highlights the reality that most minority students in higher education would probably not be enrolled in college if not for community colleges.

In comparison the National Center for Education Statistics (NCES) stated that community colleges accounted for 46% percent of the 1995-96 higher education enrollments. To provide a perspective with respect to minority enrollments in community colleges NCES reports that, 43% percent of all African Americans, and 46% percent of all Hispanic populations were attending community colleges in 1995-96. Additionally, a study conducted by Windham (1994) indicates that, those community college students who were most likely to remain enrolled were traditional students who were young, not working, not enrolled in preparatory courses, attending full-time, and earning high grades. The study also concluded that the populations least likely to persist were those working full-time, enrolled part-time, older and/or minority.

The NCES publication on the condition of Education in 1999 states, "changes in the racial-ethnic composition of students may alter the degree of heterogeneity of language and culture in the Nation's schools. Although variety in the students' backgrounds and interests can enhance the learning environment, it can also create new

or increased challenges for the schools. Knowledge of the shifting racial-ethnic distribution of public elementary and secondary students can give schools the foresight to plan for these challenges” (p.100).

Specific changes in the schools enrollment levels as reported by NCES indicate that 36% percent of students enrolled in K-12 were considered to be part of a minority group in 1996, an increase of 12% percent from 1976. In comparison, African American students since 1970 have accounted for approximately one out of every three students who lived in central cities and attended public k-12 schools. In 1996, Hispanics are reported to have accounted for approximately one out of every four students who lived in a central city and who attended public schools, up from one out of ten in 1972. In addition, 10% percent of the students who lived in a metropolitan area outside of a central city and who attended a public school was African American, up from 6% percent in 1970. According to NCES (1999) in the midst of these changes, students from different minority groups may have become more isolated from Whites. Specifically, between the fall of 1987 and the fall of 1996, the overall exposure of minorities to White students decreased. Specifically, White students comprised 64% percent of the nation’s enrollment in K-12; one third or less of the students in a typical African American or Hispanic student’s school was White. In comparison between fall of 1987 and fall 1996, Asian/Pacific Islander student’s exposure to White students declined by more percentage points than Black and Hispanic students.

For Higher education institutions NCES (1999) reported that public institutions continue to enroll nearly 8 out of every 10 students. However, enrollments have shifted from 4-year public institutions to community colleges between 1972 and 1996. In turn,

the overall minority student enrollment is approximately 10% higher at community colleges than 4-year institutions. In addition, the overall findings continue to confirm what most researchers, and administrators, already know: minorities remain disproportionately underrepresented in all fields of undergraduate education, as well as graduate and professional schools (Nora 1993).

Foundations of Retention and Persistence

There is a wide variety of information and research associated with retention in higher education. Nora (1993), in her review of literature on two-year Colleges and Minority students, found that in line with the theoretical expectations of Pascarella, Smart and Ethington (1985), the two variables with the most consistent pattern of significant positive effects on degree persistence and degree completion were academic and social integration.

More specifically, Nora (1993) indicated that, findings from a comparative study of Black and White students' college achievement by Nettles, Thoeny and Gosman (1986), suggest that, four variables -- SAT scores, student satisfaction, peer relationships, and interfering problems -- have differential predictive validity for Blacks and White students. Moreover, significant racial differences on several predictors (type of high school attended, high school preparation, majority/minority status in college, where students live while attending colleges, academic integration, feelings that the university is racially discriminatory, satisfaction with the university, interfering problems, and study habits) help to explain racial differences in college performance. Nora (1993) contends that, although there have been several books and articles written that provide excellent reviews of the impact of college on students (e.g. Feldman and Newcomb, 1969;

Pascarella & Terenzini, 1992) and on findings related to the enrollment, persistence, and academic achievement of minorities, there is to date little or no corresponding literature review on the access, persistence, and transfer of minority students in two-year institutions.

The basic differences in the community college institutional structure and the traditional four year college atmosphere is that in the latter there is interaction associated with an academic community based upon a college activity hour or campus commons; the dormitories; and a daily collegiate environment where students are expected to be on campus for several hours a day. In contrast, Community colleges provide limited interaction with an academic community as most students in urban areas are working and come to campus only at class time and make limited use of student services, then they leave (Tinto 1998). These subtle differences become more important as the population trends for higher education reveal a movement toward increased community college enrollments of non-traditional student populations and the realities of persistence theories. For example, Tinto (1998) believes that academic and social involvement, appears differently in different educational settings and thus influence different students in different ways.

Maxwell (2000) believes that there is social life among community college students, however it is not like the typical researchers visions of college dormitories, fraternity and sorority houses, or the historical four-year residential college. Of the limited number of activities examined by Maxwell (2000), peer relations for community college students revolved around studying together, discussing coursework, or talking in the campus center or elsewhere on campus.

Persistence and Retention Models

The foundations of persistence and retention models for higher education have been developed from past research and data analysis. According to Porter (1990) one of the major areas of influence on persistence is the college environment and the student's experience in that environment.

Early studies by Pascarella and Terenzini (1977, 1978), based upon Tinto's model, confirm the proposition that, students in general do better when they have an opportunity to interact positively with faculty outside the classroom. Tinto's model contends that two variables are consistently associated in a significant fashion to the retention of students in higher education, and they are academic and social integration. More specifically in this regard, Pascarella & Terenzini (1980) quote Tinto (1975) in articulating a retention model. "It is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college" (p. 61). In basic terms, Pascarella & Terenzini (1980) claims that students come to a particular institution with a range of background characteristics (e.g., gender, race, academic ability, secondary performance, family social status) and goal commitment (e.g., highest degree expected, importance of graduating from college). These background characteristics and goal commitments influence not only how the student will perform in college, but also how he or she will interact with, and subsequently become integrated into, an institution's social and academic systems (Pascarella & Terenzini 1980).

It is also believed by Pascarella & Terenzini (1980) that, a significant portion of student attrition might be prevented through timely and carefully planned institutional interventions. For example, according to Pascarella & Terenzini (1980), Tinto's model is intended to explain attrition during the second, third, or fourth years of college as well as in the first year, but strongly suggests that attrition is heaviest at the end of the freshman year. In addition, their results generally support the predictive validity of the major dimensions of the Tinto model. Of particular and noTable interest, however, were the strong contributions of student-faculty relationships, as measured by the interactions with faculty and the faculty concern for student development and teaching scales, to group discrimination (Pascarella & Terenzini 1980). Similarly Pascarella & Terenzini (1979) found that, high levels of academic integration, such as frequent informal contacts with faculty focusing on intellectual matters or perceptions of faculty as particularly concerned about teaching and students appeared to compensate for low levels of social and academic integration in other areas. However, implications of the study conducted by Pascarella & Terenzini (1979) titled, "Interaction Effects in College Dropout Models", suggested that, there may be important determinants of freshman year persistence which are not merely the result of the kinds of students enrolled, but rather are subject to the influence of institutional policies and programs which affect the student after he or she arrives on campus.

In comparison, the results of a recent study by Ewing, Mason & Wilson (1997) suggest that, receiving psychological counseling can have a positive impact on a student's likelihood of succeeding in college. Counseled students in the study enjoyed a 14% retention advantage over their non-counseled counterparts.

Likewise, another study by Pascarella & Terenzini (1980), replicated an earlier 1978 study of their own, examined the frequency of student/faculty contact. Taken together, both studies suggest that, with pre-enrollment differences among entering freshmen held constant, measures of the frequency of student/faculty informal contact are significantly and positively associated with freshman year academic performance, intellectual development, and personal development. It would thus seem that informal contacts with faculty that most positively influence freshman achievement and intellectual growth, are those that extend the intellectual content of the curriculum into students' non-classroom lives (Pascarella & Terenzini, 1980). However, according to Pascarella & Terenzini, (1980) gender, ethnicity, educational aspirations, and family educational background can be important mediating variables.

Overall, Pascarella & Terenzini (1979) indicate that, students bring different background characteristics to college (e.g., personality traits, academic aptitude, family background, secondary school achievement and experiences) which leads them to interact with the institutional environment in different ways. In turn, the nature and quality of these interactions lead to differences in students' levels of integration into the academic and social system of the institution.

As stated earlier in chapter one the researcher believes that the wide variety and combination of EOP&S program services appears to provide several opportunities for integration and involvement from both the academic and social arenas as indicated in student attrition model research. However, a review of literature reveals that, most retention research deals with characteristics of persisters and non-persisters and not on intervention strategies (Brawer, 1996).

According to Bean (1982), an explanation of why these persistence factors work is still lacking. "The value of such studies is much like that of other descriptive (atheoretical) studies, but their outcomes focus on strategies for admission, not on strategies for retention" (Bean, 1982, p.19).

Aspects of Special Programs

Nora (1993), in her review of literature of two-year Colleges and Minority students, found that in line with the theoretical expectations of Pascarella, Smart and Ethington, the two variables with the most consistent pattern of significant positive effects on degree persistence and degree completion were academic and social integration.

A variety of similar research studies support the need for multiple-action programs to improve Hispanic student retention. For example, Avalos & Pavel (1993) rely on Walker (1988) to articulate observations about the educational environment for most Hispanic college students. Improvements in retention were associated with financial aid grants, career counseling into selective programs and participation in English as a Second Language (ESL) and Latino Studies classes. In addition, Avalos & Pavel (1993) believe that, transfer is often cited as a positive factor in Hispanic community college student retention. However, California which has the most Hispanics in the largest system of community colleges in the world, experiences the greatest attrition in transfer among Chicano and Black freshman students.

According to Avalos & Pavel (1993), community colleges play a major role in improving the access of Hispanic students to the American system of higher education.

Studies indicate that roughly 56 percent of all college going Hispanics attend community colleges, largely because they are inexpensive, offer pertinent instruction, and have close ties with the community. However, relatively few have attained a postsecondary degree of any kind, making retention and transfer paramount concerns. More specifically, two factors seem to influence Hispanic community college student retention according to these authors, these being financial aid and academic support.

Fralick (1993) found that a survey completed at Cuyamaca California Community College showed no significant differences between the success rates of minority and non-minority students. However in that study, one of the college goals was to increase the diversity of student enrollment. It has been found that programs designed to increase retention for the general population are helpful in retaining minority students as well (Fralick 1993).

In addition, Schwartz (1997) contends that, identifying the special talents of students from diverse backgrounds is just the first step toward helping them achieve their full potential. He further states that educators need to develop programs for gifted students that reflect and respect their cultures and learning styles. This is particularly important to minorities, according to Munoz (1986). While all students face some stress-provoking situations upon entering higher education, research has demonstrated that the stress produced is higher for Chicano students than for Anglo students (Olivas p. 147).

Willard Lewallen conducted a study of Student Equity at Antelope Valley College (AVC) in California where he examined the access and success of what he called historically underrepresented students. The results of the study for 1990-91 to 1993-94 academic years indicated that: (1) while Native Americans, Asian/Pacific Islanders, and

Black students were over-represented at AVC compared to their representation in the college's service area, Hispanic students were significantly underrepresented; (2) with respect to degree completion compared to representation in the college population, females were over-represented, while Black and Hispanic students were underrepresented; and (3) Hispanic students were also underrepresented in transfer to the state supported four year colleges.

According to Baron (1997) there continues to be a growing concern in college communities for the development of services and programs that meet the personal and developmental needs of students. "This concern runs concurrent with emphasis on instruction and research, recognizing that every student must meet certain basic personal needs in order to function successfully in a learning environment" (Baron p. 6). More specifically, Baron (1997) advocated for a variety of support services with emphasis upon rapid counseling contacts, self-concept development through revised orientation, career development, problem solving and coping skill to enhanced retention and achievement for under-prepared community college students. After providing the special support services indicated above, the Bronx Community College retained 76.5 percent of its high risk under-prepared students who participated in the Freshman outreach, caring, understanding, and support (FOCUS) center compared to 59.3 percent of the non-participant freshman.

Research conducted by Walker (1988) also showed that community college Hispanic students retention was improved by proportional level of supportive services, specifically: financial aid, career counseling in selective programs, bilingual education, ESL classes and Hispanic studies courses.

A 1996 report from the Illinois Community College Board showed that various activities addressing the needs of underrepresented groups that were offered through out the state community colleges system. The level of service was reported along with the level of transfer achievements for Black and Hispanic students between 1990 and 1994 which accounted for an overall increase of 34 percent for Black student and 42 percent for Hispanic students (p. 14).

Atondo, et al. (1986) provides research results that highlight the success of Hispanic students who participate in the Puente (bridge) Project at Evergreen Community College in California. The Puente project integrates the skills of an English teacher, a Hispanic academic counselor, and other Hispanic professionals acting as mentors to promote academic achievement, self-confidence, and student motivation. The 3-year comparative study of 115 Puente students and 273 Hispanic counter parts yielded the following findings: 89 percent of the Puente students completed English 330 compared to 46 percent of the other Hispanic students; 70 percent of the Puente students completed English 1A, compared to 8 percent of the other Hispanic students; 53 percent of the Puente students remained enrolled compared to 17 percent of the non-participating Hispanic students. Overall the study demonstrated a significantly higher level of achievement among Puente students as compared to their Hispanic counterparts.

According to Fink & Carrasquillo (1994) a variety of support services and campus wide retention strategies improved retention. Coll & VonSeggern (1991) assert that empirical studies undertaken at Bronx Community College, Phillips Community College, and Miami-Dade Community College provide evidence that a freshman success course effectively promotes retention. According to Coll & VonSeggern (1991), these freshman

success courses typically include topics that are highly correlated with academic persistence, such as managing time, memory techniques, writing test answers and course papers, and coping with overload anxiety. More specifically, Coll & VonSeggern (1991) believe that effective pre-college orientation programs provide students with the following six informational elements for success:

1. Descriptions of college program offerings.
2. The college's expectations for students.
3. Information about assistance and services for examining student interests, values and abilities.
4. Encouragement to establish working relationships with faculty.
5. Information about services that help students with their adjustment to college.
6. Financial aid information.

Research conducted by Takahata (1993) indicates that the strategies utilized at a Critical Thinking and Writing Center were successful in improving outcomes for at-risk students attending San Diego City College. According to Takahata (1993) although students in the treatment group were more likely to be classified as being at-risk compared to the comparison groups, they were successful on three specific outcome measures. For example, the students in the treatment group attending the Critical Thinking and Writing Center, had significantly higher retention rate of 96.7 percent compared to 86 percent for the non-treatment group and they exhibited a persistence rate of 91.7 percent compared to 78.7 percent for the non-treatment group. In addition, considering overall retention research results Price (1993) suggests that increased retention was associated with greater involvement in campus activities, closer affiliation with faculty members, and on-campus employment.

According to Mohammadi (1994), the most significant community college predictors of student retention are student goals, hours enrolled per semester, number of credit hours completed and grade point average. In contrast, Saucedo (1991) concluded that Puente students who received services from Puente English teachers, Puente Counselors and Mentors had a comparatively higher retention level than non-Puente Mexican-American students.

In 1983 Napa Valley community College implemented it's Student Orientation, Assessment, Advisement and Retention (SOAAR) program which consisted of assessment of Math and reading skills of first-time students, orientation and advisement of services and courses. According to Friedlander (1984), participation in the SOAAR program did not have a positive affect on student performance or persistence in Napa Valley Community College English and Math classes.

In a topic related to retention, Opps and Smith (1995) believe that their research results derived from a survey of over 600 Vice Presidents of Student Affairs identified five frequently agreed upon barriers to minority student recruitment in community colleges. The five frequently agreed upon identified barriers to minority student recruitment are listed below as:

1. Low high school completion rates among minorities.
2. The confusion of prospective minority students regarding the options and benefits of higher education.
3. Low expectations communicated by parents, teachers, and peers.
4. The tendency of many minority youths to reject the assertion that success requires a college degree.
5. Recruiting minority students is time consuming and labor intensive.

In 1991 research Staff at the California Community College Chancellor's office, Charles McIntyre and Dr. Chuen-Rong Chan (1991) conducted a study examining the performance achievements of EOP&S students during Fall 1989 and Spring 1990. This 1989-90 comparison study was conducted with 1,882 EOP&S students and 4,789 non-EOP&S students from similar economic and educational skill levels from 12 different California Community Colleges. The study yielded the following results: when the two populations of EOP&S and Non-EOP&S students were compared on persistence by skill level, EOP&S students yielded a 88.1% percent persistence rate while Non-EOP&S students yielded a 79.9% percent persistence rate. When the two population were compared on their rate of retention by skill level, EOP&S students yielded a rate of 90% percent compared to 93% percent for Non-EOP&S students of the same skill level. However, when the two populations were compared by socioeconomic status, EOP&S posted a significantly higher persistence rate of 87.2% percent in contrast to a 65.1% percent rate for Non-EOP&S students. The overall results of the 1989-90 study demonstrated that EOP&S students persist at a significantly higher rate than their non-EOP&S counter-parts with the average cumulative GPA's of 2.27 for EOP&S students versus 1.74 for Non-EOP&S students.

The fall 1997 Student Expenses and Resources survey (SEARS) conducted by the California Student Aid Commission compiled a series of findings of student opinions. The findings indicated that 86% percent of those who heard of and used EOP&S services were satisfied. In contrast only 75% percent were satisfied with counseling while 76% were satisfied with college orientation and assessment services.

Retention Models and Multicultural Education

The current efforts to develop multiculturalism in higher education institutions appear to correlate with some effective retention efforts. Multiculturalism is not considered a “minority thing”; it is a tool to change the cultural and perceptual basis of a college’s operations, inside and outside the classroom (Walters 1996). However, this change should reflect the sensibilities and values of the cultures represented in the campus populations. Walters (1996) asserts that this effort to change should “begin with the curriculum but does not end there” (p.47). Moreover, this effort requires that the perception of the college’s identity and its cultural style and values be purposefully transformed to recognize and reflect campus diversity. For example, communication problems usually develop “where the most frequent complaint is a lack of representation or diversity in staff composition, and often result in Black and Hispanic students not approaching or using such vital services as campus police, dean of students, and financial aid” (Walters 1996 p.47). Basically, the challenge for colleges is to make the campus climate and environment conducive to accepting and learning about other cultures. In turn this brings about a campus climate and environment that is conducive to accepting and connecting with minority students (Powell 1998).

The overall principal of multicultural education provides various avenues and opportunities for student integration and involvement (Banks 1995). The combination of principles and practice of multicultural education provide a cross-section of activities that attempt to include the key elements of persistence and retention. For example, the multicultural program standards call for ethnic diversity staff training, ethnic cultural events, educational planning, mentoring and curriculum development (Walters 1996).

Generally, retention research supports the need for multiple-action programs that include multicultural education to improve both urban minority and general student retention (Green 1989). For example, Walker (1988) asserts that improved retention for Hispanic students was associated with financial aid grants, career counseling into selective programs, participation in English as a Second Language (ESL) and Latino studies classes, i.e., Multicultural courses.

The role of multicultural education and the concepts associated with the spirit of diversity are essential for the acceptance of the special group populations of urban community college students. According to Walters (1996), embracing a multicultural spirit of diversity is the first step toward creating a supportive learning environment for minority students. Many supporters of multicultural education believe as we approach the new millennium urban community colleges should place stronger emphasis on their examination of the current college environments to assess progress toward greater diversity.

Walters (1996) surmises that academic achievement requires motivation, mentoring and high self-esteem; all are by-products of a diverse educational environment. While support services are vital and a critical element for retention, the overall campus environment is also a key element in determining how well a student adapts and performs in college. Therefore faculty, academic and student support services must share various perspectives and ideas in the development of the spirit and vision of multicultural education and diversity on campus in order to retain students (Powell 1998).

Richardson and Skinner (1991) reported that minority students experience frustration when they are recruited by colleges on the strength of previous achievements

and cultural affiliations and then they are expected to behave like White students with whom they may have little in common. “Their frustration deepens as differences in preparation and learning preferences translate into often insurmountable barriers to graduation” (p.11).

In comparison, Walters (1996) believes that embracing a multicultural spirit is a first step toward creating a supportive learning environment for minority students. The challenge for most urban community colleges is to make the campus environment conducive to accepting and learning about other cultures. When minority students arrive on campus, the college atmosphere unduly interferes with their academic achievement and personal development. According to Wilson & Justiz (1988) this results in minority students feeling isolated from campus life. One consequence of this type of isolation is attrition. However, implications of the study conducted by Pascarella & Terenzini (1979) titled, ‘Interaction Effects in College Dropout Models’ suggests that there may be important determinants of freshman year persistence which are not merely the result of the kinds of students enrolled. Other significant determinants are related to the influence of institutional policies and programs that affect the student after he or she arrives on campus.

Walters (1996) provides some insight into overcoming institutional barriers, “proactive efforts such as discussion forums (involving students, faculty, and staff) and orientations for new faculty and staff to the multicultural mission of the institution should be used to reinforce the importance and priority of multiculturalism” (p. 46).

Powell (1998) asserts that a campus environment that is inhospitable to students of color is not healthy for any student. Improving the campus climate is essentially the

most important element in any retention strategy. According to Powell (1998), the challenge is to create campus environments that reflect the cultural heterogeneity within and create a learning community where all students are treated with respect and helped to succeed. In other words, no retention plan for students of color can be successful if the environment on campus drives students away (Powell 1998). Similarly, research supports the need for multiple-action programs to improve Hispanic student retention. Avalos & Pavel (1993) state that transfer is often cited as a factor in Hispanic community college student retention, however, California, with the most Hispanic students in the largest system of community colleges in the world, experiences the greatest transfer losses among Chicano and Black freshman students.

Hammond (1995) asserts that it is widely noted that educational inequity exists and is challenged by the goal of educational equity implicit in multicultural education. In addition, Banks (1995) admitted that the impetus and main focus of much of the work in multicultural education is the improved academic achievements of students of color. More specifically, Banks (1995) in the text 'Handbook of Research on Multicultural Education', provide community college professionals with the rationale for utilizing multicultural education to improve academic achievements grounded in contemporary research or learners' outcomes. In comparison, Powell (1998) states, "there is general agreement, that for students of color, a welcoming, nurturing, and caring climate is crucial for retention; that student experiences during the freshman year on campus greatly influence their decision to stay or leave; and that a retention strategy to enhance the retention of students is imperative"(p. 102).

The essential elements that urban community college administrators may consider in their assessment of retention strategies include: the overall scope of the activities needed to ensure effective retention; the sequence of intervention activities; the desired learning experiences; and the selection of specific content methods for implementation (Walters 1996). In addition, the urban community college administration and key staff members must understand the terminology used in retention philosophy and have an overarching comprehension of its' foundations, while considering the official and operational aspects of their individual campuses (Walters 1996).

Motivation as a Factor

In addition, motivation is a concept that has gotten little attention in the higher education arena of attrition and may provide some essential pieces to the retention puzzle. For example, Ford (1992), proposed a series of general motivational principles as stated by Hoy and Miskel (1996) in their text, which may provide some guidance for policy development and institutional practices for motivating individuals toward achievements and perhaps toward retention of more college students. Here are the six basic principles of motivation as presented by Hoy and Miskel (1996):

1. Attempts to increase individual motivation always involve the whole person.
2. The strongest motivational patterns are anchored in multiple goals; interventions should allow people to attain as many goals as possible.
3. Clear, useful feedback regarding goal attainment should be provided.
4. Motivation is maximized under conditions of optimal challenge; interventions should produce high but attainable goals.
5. There are many ways to motivate people; interventions should incorporate different strategies--that is, use multiple approaches and keep trying!
6. People should be treated with respect.

In addition to Ford's six motivational principles, Troutman (1997) asserts that, low-income students tend to be external in their motivational orientation, which means that they tend to attribute their success or failures to outside forces or individual rather than their efforts. In contrast, middle income students tend to be more internal in their orientation. Troutman (1997) suggests that these orientational modes have important implications for teaching. In addition, Troutman (1997) feels that, school administrators must assure that teachers are modifying their teaching strategies to increase academic achievement of students from diverse social class, gender, and cultural groups (p. 14). Troutman (1997) goes on to caution the academy that, "norms, ethos, and shared meanings sometimes impede the educational equity of minority groups. In a related area, it is surmised that school administrators must examine tracking and grouping practices, labeling practices, sports participation, ethnic turf, cafeteria, and gifted programs (Oakes, 1985) so they may create a school culture that reflects concepts of equity" (p. 15).

Rendon (1994) contends that, "African American, Mexican American, Puerto Rican, American Indian, and Asian Students are emerging as a new student majority on some campuses". The survival of the "new majority" is predicated upon the transformation of the organizational culture of higher education institution.

Summary of Implications

The implications provided by the breath of the materials relating to retention in higher education and specifically community colleges, reveals a pattern, which ultimately supports the basic model that Vincent Tinto has developed and provided for the academy of higher education. The basic premise here suggests the more students are involved in

the college environment, the more they absorb and receive positive experiences from the institution (Tinto 1987, and Pascarella and Terenzini, 1991). Perhaps the most important implication or outcome of most retention programs, according to Tinto (1993) is the fact that little has been done to change the essential quality of the academic experience for most students, especially during the critical first year of college. More specifically, Martha de-Acosta (1996) contends that, there is agreement in the literature that successful programs addressed to Latino and Latina students and for that matter to other minorities share similar features. A review of successful programs as stated by de Acosta (1996) reveals seven key features of those shared styles:

- 1). Sensitivity to individual students;
- 2). Sensitivity to student's culture;
- 3). Sensitivity to the institution as to where the program is located;
- 4). Have proactive interventions;
- 5). Have a focus on accelerated, enriched learning;
- 6). Keep program size small;
- 7). Have partnering with family and community.

Possibilities and Solutions

Tinto (1993) asserts that, in the final analysis, the key to successful student retention lies with the institution, in its faculty and staff, not in any one formula or recipe. However, one way to encourage the higher education community to pay better attention to the details of retention, is to encourage higher education institutions to develop accountability measures that track retention of special populations. According to Richardson & Skinner (1991), accountability and evaluation policies are designed to

track progress toward participation and graduation goals. Information furnished by measures of student participation and progress can be used to inform the public about institutional performance as well as to revise plans and inducements. Even more controversial is the use of performance data to financially reward success and penalize failure, as in the Tennessee performance-funding program (Richardson & Skinner 1991). More specifically, Richardson & Bender (1987) reports that, Tennessee has been recognized nationally for linking resource allocation to institutional performance dimensions. "One of the important quality indicators that Tennessee rewards is student progress, which encompasses the retention and graduation of minority students . . . The results of this approach are evident at University of Memphis, where participation and graduation rates for minority students are very nearly equivalent in a majority of the institution's programs (p. 221)."

Tinto (1998) proposed that "we should direct our studies to forms of practice and let the knowledge gained from those studies inform our theories of persistence" (p. 175). Therefore, it is imperative that the elements of persistence and retention be examined and revealed to enhance the achievements and success of community college students. To improve the quality of community college education and higher education in general, it is necessary to determine to what extent special support program services affect positive student performance and outcomes, i.e., persistence, retention, and grade-point average or transfer to four-year institutions.

However, it has been noted that explicit guidance and emphasis should be place on the inclusion of minorities and disadvantaged students within our institutions of higher education. Parker (1997) provides additional support for the generic model of Tinto and

this train of thought. He simply states, “if a goal of higher education is to effectively assist minority students in their quest for academic success, then it must work to become truly barrier-free, reducing the risk of failure. This can be accomplished by institutions responding to issues surrounding academic preparation, financial assistance, and in on-going audit of the institutional environment” (p. 120). More specifically, Parker (1997) believes that the integration of minorities into the fabric of the institution’s life--via the boardroom, classroom, and the staff room -- is essential to that goal.

According to Parker (1997), the research indicates that student success is highest when retention efforts are coordinated by a centralized office, or person, making the effort visible, and giving it a sense of importance. The most critical person in the retention effort is the college president or top administrator. More specifically, the respondents to the study quoted by Parker (1997) perceived the president, followed by academic and student affairs administrators, faculty and the Regents or College Board, as key stakeholders who should be advocating for retention. In addition, Parker provided a list of the strategies used most often by institutions surveyed, to overcome retention problems as follows:

1. The creation of positions dedicated to handling retention activities on campus;
2. The recognition of the need for additional funding sources;
3. The establishment of mentor programs for minority students--programs that have helped minorities see successful students and staff who can show them a path to success, and which may give them the confidence and support they need;
4. The re-organization of faculty/staff duties and responsibilities to assist in retention activities--especially for institutions with limited resources;

5. The development of a reporting system for identification and tracking so that institutions can have accurate data and data processing capabilities, on the different facets of their programs; and
6. The development of faculty/staff training to better understand minority populations.

Overall, Parker (1997) gives support and relevance to Tinto's model, by articulating the concept that, retention rates can be improved--and the cost, time and effort may be considerably less than administrators fear. By implementing the critical factors that make retention work, such as positive faculty relations, community relations, leadership, the organization of services into a unit, orientations, student support classes and series of recruitment planning, academic intervention services, campus climate, and award ceremonies--institutions of higher education can help retain minority students now. In addition, Love (1993) believes that, the real institutional changes require to accomplish equity in educational opportunity in predominately White Institutions can only begin with commitment from top leadership.

However, Kulik, Kulik, & Shwalb (1983), point out a different but realistic view of special retention programs. "Although the picture that emerges from the research on these special programs is basically positive, it has some unexpected and even disappointing features. For one thing, effects were stronger in new programs and weaker in institutionalized programs" (p. 408). They speculated that novelty, rather than experience, seemed to be the essential factor in program success. More over, they observed that colleges seemed to be better at setting up special programs for high-risk students than they were at keeping these programs going. According to them energy, enthusiasm, or even funding may have dropped off, as programs become institutionalized

(p. 408). For retention programs to maintain their positive effect programs efforts must be comprehensive, as indicated by Tinto (1993), Parker (1997) and de Acosta (1996) and specifically related to the population it is slated to serve, i.e., the community college non-traditional student.

However, it is apparent that what is known is how to enhance the involvement of disadvantaged minority students in the community college environment but not on a continual basis. The studies listed and reviewed in this chapter summarize that, many in higher education have knowledge of the successful practices and efforts of some colleges, and there are strong indications that, most of these practices have a reoccurring theme. In addition, that theme is constant throughout the studies and articulated in the literature as follows:

- *Students retention is most important in the first 12 months of college.*
- *Students who are significantly involved in the college, e.g., instruction and academics, and/or the social fabric of the college, are retained and do persist.*
- *Disadvantaged students bring different experiences with them to college, than do White middle class students.*
- *Disadvantaged and minority students, who do not perceive themselves to be apart of the college, nor connected to the learning atmosphere of the college, will not persist.*
- *It takes a whole college (it takes a whole village) to retain a student.*

The higher education academy continues to learn and validate how important it is to adapt the college environment, to be supportive, and to be inclusive of at-risk disadvantaged minority students. In other words, higher education does not have the motivation nor determination to establish permanent processes that will consistently maintain college access with achievements for success for special populations. The

results of this study may shed some light on a dark subject of community college attrition and illuminate the possibilities of higher persistence for special populations.

CHAPTER 3

METHODOLOGY

The purpose of the research study was to determine what support services (counseling, tutoring, mentoring and/or staff contact) EOP&S students perceive and/or identify as having a positive affect on their persistence and retention within the community college system. Student perceptions and self reported attitudes were obtained from a select number of EOP&S programs based upon their student outcome trends from a recent Four-year period.

Procedures

Chapter 3 presents the detailed research procedures that were utilized in this study. The specific research design combined a descriptive, quantitative, cross-sectional retention study with a survey questionnaire that was disseminated at nine (9) California Community Colleges to some 540 continuing EOP&S students. The rate of return was 57 percent as 310 student perceptions and self reported attitudes were obtained from the nine select EOP&S programs. These revealed EOP&S student outcome trends from the Spring term of 2000, where program selection was based upon statewide EOP&S program data from a recent four year period.

A cross-sectional research design was employed to collect data from the 310 EOP&S students during the Spring semester of 2000 at a single point in time, midway

through that academic term. The specific research information collected and discussed within this chapter was retrieved through a survey instrument developed by the researcher that involved review by a panel of 5 jurors for content. The researcher obtained 310 surveys out of 540 surveys distributed to currently enrolled EOP&S students, which represents a 57% survey return rate.

More explicitly, the survey questions solicited information on such things as students' educational goals; perceptions of contacts with faculty and EOP&S staff; the extent of use of various student supportive services; the significance and benefit attributed to certain academic support programs; and specific variables thought to be influential in student persistence decisions. The basic concept and goal of this study was to examine objectively the interaction of EOP&S students with the organization, through the EOP&S program activities.

According to Bean (1982), organizational variables are indicators of the student's interaction with the organization. They are intended to reflect the respondent's experience of the organization. For example, whether counseling services were used and found to be beneficial or not. "These variables include the structure variables, that is variables that can be administratively manipulated" (Bean, 1982, p. 27). The general organizational variables for this study were the EOP&S program activities that included but were not limited to: counseling, tutoring, book services, peer advising, extended orientation, grants, priority registration assistance, and monitoring mid-term student progress.

In the context of the research design, the dependent variables for this study were persistence and retention. The independent variables were the organizational activities,

i.e., EOP&S participation in specified programs' activities and/or services. Overall, for purposes of this study the researcher utilized a descriptive study approach based on Tinto's synthetic model of integration applied through a cross-sectional attrition study. Astin's I-E-O typology was used to determine what factors were perceived by EOP&S students to be influential in their persistence. Specifically, for this study the researcher utilized Astin's I-E-O typology which refers to: I = *Input*; E = *Environment*; and O = *Outcomes*. In this study, *input* refers to the EOP&S student who are educationally unprepared and economically low income. *Environment* refers to EOP&S program activities to which the student was exposed to at the community college. *Outcomes* refer to the student achievements after being enrolled in the EOP&S program and exposed to the EOP&S program environment.

General Methodology and Research Design

The conceptual framework for this study was a synthetic model of attrition combining both Astin's and Tinto's concepts of integration and involvement. The research design required the collection of data that were cross-sectional in nature. The data consisted of student responses on a structured instrument constructed specifically for the present study.

Each of the EOP&S programs within the nine selected community colleges in the state of California were asked to distribute and collect the survey instrument when students came in for regular visits and/or program services. In addition, the researcher utilized statewide EOP&S program data collected by the Management Information Systems of the California Community College Chancellor's Office to determine EOP&S student retention and persistence levels.

As to the sampling procedure employed, the researcher chose a stratified, purposeful sampling technique. According to Gall, Borg and Gall (1996), this technique calls for the selection of several bases at defined points of variation with respect to the phenomena being studied. Therefore, as noted, the data trends of all 106 California Community College EOP&S programs were examined in order to select the three EOP&S programs that exhibited the highest levels of student persistence, the three programs nearest the median level of student persistence and the three EOP&S programs that exhibited the lowest levels of student persistence. These three contrasting segments of the EOP&S student populations were then examined closely through the collection and analysis of data from follow-up surveys from the 310 student respondents.

Instrument

The entire questionnaire survey instrument may be found in the appendix section. It was named the EOP&S Student Survey Questions. It consists of twenty-three (23) questions. The questionnaire was divided into the following concentrated areas:

Demographic Section; includes nine (9) general demographic questions related to the personal backgrounds and goals of EOP&S students ranging from gender, age, ethnicity and community college goal, to student grade point averages and goal completion date.

Questions 1-5: focused on specific support services. They are related to the supportive services received and level of usage and more specifically, the identification of the most important supportive service received to the least helpful service.

Questions 6-9: These are integration type questions designed to solicit student perceptions of where they were welcome or where they felt they had a personal connection on campus.

Questions 10-14: These questions were associated with the specific impact the EOP&S program had on the respondents and the perceived benefit the program activities and/or services provided. In addition, each respondent was asked to identify what area of the EOP&S program works well or needs improvement.

The survey instrument was reviewed by five (5) expert judges for content validity during its development and modifications were made in conformance with their suggestions. In addition, the researcher pilot tested the instrument with 14 continuing students from an EOP&S program in Northern California that was not part of the sample prior to the formal dissemination of the survey to the nine EOP&S programs throughout the state of California. The Cronbach alpha was used to determine the instrument's reliability concerning internal consistency. The results of the Cronbach alpha as related to the survey instrument produced a coefficient of .8956, which is well within the appropriate range for internal consistency.

In addition, three questions within the survey instrument were in the form of a Likert-type scale while two were short response items. The vast majority of the survey questions required a specific check-list response from a wide variety of choices. The final two questions were of an open-ended variety calling for personal evaluations of EOP&S program elements.

The population sample

The actual respondents in the study numbered 310 continuing EOP&S students. Roughly equal numbers were drawn from the top, median and low levels of persistence outcome colleges. The EOP&S program directors were asked to administer the EOP&S Student Survey Questions to the first 50 to 70 continuing EOP&S students who came into the EOP&S office to receive EOP&S support services. The data were collected beginning on January 31, 2000 and concluded March 17, 2000. The researcher insured that data on the source and rate of returns could be tracked and reported by color coding the surveys distributed to the nine different colleges EOP&S programs. The participants were provided an envelope containing the survey instructions and a transmittal letter that was positive and encouraging, stressing the confidentiality of each individual's response for each potential respondent. The letter also instructed the students to place the completed survey in the envelope provided and return the sealed envelope to the EOP&S office where it would be forwarded to the researcher. Approximately 540 EOP&S students received envelopes and survey questionnaires and 310 students returned surveys.

Once the completed survey questionnaires were returned to the researcher, each was reviewed for thoroughness and completeness, and then processed and scored. An appropriate tabulation of responses was done for each question on the survey. Following this, the data were first analyzed using descriptive statistical techniques. Results are reported in the form of frequency of response, with the exception of the three Likert type questions, which were tabulated on a semantic differential scale format. The results were subject to statistical treatment and reported in the form of frequency and means for the total sample population and each of the three sample groups that responded to survey

questions. Please see Tables 1 through 22 in Chapter 4 for a detailed examination of the data and findings. To further analyze the data the researcher conducted a variety of nonparametric statistical procedures on data from responses to questions that yielded nominal or ordinal level measurements. In these instances the chi-square technique was employed and a .05 level of significance ($\alpha = .05$) was utilized.

The reader is reminded that the limitations and weakness of the nonparametric data cited here includes the following:

- Since no assumptions are made about the population parameters, inferences must be made back to the population cautiously.
- Research variables were not carefully controlled.
- The researcher could not control for the rate of survey responses.
- The one-shot study research design used here was not as rigorous as quasi-experimental or causal/comparison study designs.

Research Questions

- Do EOP&S students persist at a higher rate than non-EOP&S students enrolled full-time at the same community college?
- If EOP&S students persist at a higher rate than non-EOP&S students enrolled full-time at the same community college, what is the number and/or pattern of involvement in general program activities and elements that EOP&S students identify as contributing to their persistence in community college?
- What specific program activities do EOP&S students identify as contributing to their persistence?
- Are EOP&S students retained at a higher rate than non-EOP&S students?
- If EOP&S students are retained at a higher rate than non-EOP&S students, is there a difference in the number and/or pattern of involvement in general program activities and support service elements that EOP&S students identify as contributing to their retention?

- What specific program activities do EOP&S students identify as contributing to their retention?
- Do higher EOP&S program funding levels correlate with higher persistence levels?
- Do higher EOP&S program funding levels correlate with higher student outcomes?

After the statistical tests of frequency and cross tabulations of chi-square group scores were conducted the researcher produced a correlation matrix by entering data on a spreadsheet of the SPSS statistical package for the social studies, version 9.0 using the PPMC (Pearson Product Moment Correlation) procedure under the analyze menu to obtain correlation coefficients. More specifically, the correlation coefficients produced reflected the relationship between funding and persistence levels along with student outcomes such as grade point averages and funding levels.

CHAPTER 4

RESEARCH RESULTS AND FINDINGS RELATIVE TO EACH RESEARCH QUESTOIN

Chapter four presents the results and finding as they relate to the specific research questions mentioned previously. The researcher compiled the following results from the responses to the questionnaire in an effort to obtain a description of EOP&S student perceptions of EOP&S program services and activities associated with their own retention and persistence. The following discussion addresses the analysis of the data gathered in an organized fashion designed to answer each of the research questions in turn. A clear summary of the answers is presented in each instance.

Research Question #1: Do EOP&S students persist at a higher rate than non-EOP&S students enrolled full-time at the same community college?

In response to this research question, the researcher utilized data assessed through the statewide Management Information Systems (MIS) coordinated within the California Community Colleges Chancellors' Office. The data were found to support the verity that EOP&S students persist at a significantly higher rate than non-EOP&S students on a statewide basis (see Table 1). In addition, it was found that EOP&S students also persist at a significantly higher rate than non-EOP&S students enrolled full-time at the same community college (see Table 2).

Table 1

Statewide Persistence Rates Among EOP&S Students and Full-Time, Non EOP&S Students for the Academic Years 1993 – 1994 through 1996 - 1997.

1993 – 1994	EOPS	NON-EOPS	DIFFERENCE
Fall enrollments	64,979	266,545	
Spring enrollments	<u>55,184</u>	<u>145,509</u>	
	84.92%	54.59%	30.33%
1994 - 1995	EOPS	Non-EOPS	Difference
Fall enrollments	68,586	265,114	
Spring enrollments	<u>56,821</u>	<u>142,063</u>	
	82.84%	53.58%	29.26%
1995 - 1996	EOPS	Non-EOPS	Difference
Fall enrollments	66,491	259,126	
Spring enrollments	<u>54,309</u>	<u>139,778</u>	
	81.67%	53.94%	27.73%
1996 - 1997	EOPS	Non-EOPS	Difference
Fall enrollments	90,643	262,420	
Spring enrollments	<u>73,524</u>	<u>140,863</u>	
	81.11%	53.67%	27.44%
Four year Average	82.64%	53.95%	28.6%

Table 2

**Persistence Among Individual EOP&S College Programs
and Non-EOP&S Full-Time Students For 1996 - 97.**

College	EOP&S rates	FULL-TIME STUDENT	
		Non-EOP&S rates	Difference
Cerritos(1)	97.3	51.2	46.1
West Valley(2)	93.8	56.2	37.6
Golden West(3)	94.3	52.5	41.8
Butte(4)	84.9	54.2	30.7
Fresno(5)	85.04	47.4	37.64
Coastline(6)	82.03	27.8	54.23
Vista(7)	72.33	35.7	36.63
Barstow(8)	72.57	46.7	25.87
Palo Verde(9)	65.12	52.1	13.02
Averages	83.04	47.08	35.94

More specifically, EOP&S statewide data obtained from MIS revealed the following performance trends in response to Research Question #1.

- The statewide data for all EOP&S students exhibited a four year average persistence rate of 82.64% percent from the academic years of 1993-94 to 1996-97 in contrast to a 53.95% percent persistence rate for all Non-EOP&S students who were enrolled full-time during the Fall terms for the same four years (see Table 1).
- For the EOP&S programs utilized for this research from the nine select colleges included in this study, EOP&S students out persist non-EOP&S student at the same college by an average difference of 35.9%.
- In comparison on a statewide basis EOP&S students were found to have results posted at a 28.7% higher average persistence rate than did their non-EOP&S counterparts.

The answer to Research Question #1 is clearly yes, EOP&S students persist at a significantly higher rate than non-EOP&S students enrolled full-time at the same community college.

Research Question #2: If EOP&S students persist at a higher rate than non-EOP&S students enrolled full-time at the same community college, what is the number and/or pattern of involvement in general program activities and elements that EOP&S students cite as contributing to their persistence in community college?

The findings demonstrate that EOP&S students perceive Grants and Book Services to be two of the top five most frequently utilized program services. Both are also ranked among the top five services cited as being most important. However, the next faction of services found in the ascending rankings were related to academic support services such as Orientation, Educational Planning, Academic Counseling and Priority Registration. See Tables 3 through 6 for a detailed presentation of these results.

The results also revealed that Orientation was the most cited service with a reported 77% selection frequency ranking of regular use. It is followed by Book Service; Priority Registration; and Grant Money, in that order. It should be noted that Table 3 provides a detailed ranking of EOP&S services revealing student responses to Survey Question #1.

Over one third of the students surveyed indicated that they utilized the most important EOP&S services 1 to 3 times. Almost 25% of all students indicated that their incidence of use was 3 to 6 times. Nearly 15% of the respondents reported using these services as many as 12 or more times during a year. Table 4 provides a ranking as well as the number of times respondents reported using each of the activities chosen as the most important EOP&S services.

Both Book Services, and Grants were cited as the highest frequency rated service in response to student perceptions of the most *important* service. In contrast

Table 3
Rank- order of Frequency and Percent of Response to
EOP&S Services and Program Activities Used on a Regular Basis.

Services	Frequency	Percent of Response
EOP&S Orientation	239	77.1
Book Service	238	76.8
Priority Registration	189	61.0
Grant money	187	60.3
Academic Counseling	183	59.0
Educational and Academic Planning	161	51.9
Tutoring	149	48.1
Personal Counseling	146	47.1
Career Guidance	130	41.9
Peer Advising	118	38.1
Progress Monitoring	81	26.1
Transfer services	79	25.5
Basic Skills	70	22.6
Child Care	48	15.5
Emergency Loans	48	15.5
Summer Readiness	43	13.9
Clubs Activities	40	12.9
Cultural Events	26	8.4
Mentor program	27	8.7
Other	17	5.5

Table 4**The Incidence use by Frequency and Percent of EOP&S Services**

Incidence of Use	Frequency	Percent
1 to 3	115	37.1
3 to 6	75	24.2
6 to 9	28	9.0
9 to 12	21	6.8
12 or more	45	14.5
No response	17	5.5
None	9	2.9
Total	310	100.0

academically associated support services such as Educational Planning, Orientation, Academic Counseling, Priority Registration and Tutoring follow behind Books and Grants. Table 5 reports student responses to the question, “What is the most important EOP&S service that helped you to persist?” The response to this survey question is revealed in Table 5 with sums of the frequency of responses and mean scores for the individual EOP&S services.

The most *influential* EOP&S services were ranked by respondents in a slightly different order from the ranking of the most *important*. Regarding the latter, it was found that Educational Plans outranked Grants as the more *influential* service, where as the

reverse was true on the ranking by *importance* (see Tables 5 & 6). Academic Counseling also outranked Orientation as the most influential EOP&S service for student persistence. Academic Counseling was ranked fifth as the most *important* EOP&S service and posted as fourth as most *influential* (again refer to Tables 5 & 6).

To simplify analysis and interpretation, EOP&S services most cited by the respondents are grouped into nine specific activities under two major clusters. The two major clusters were (1) those comprised of specific tangible items that students receive from their respective programs and (2) academic-related support services. Within these two clusters are the listings of nine major program services that EOP&S students cited most often as contributing to their college persistence. These services were: Book Service, Education Plan, Grants, Academic Counseling, Priority Registration, Orientation, Personal Counseling, Mutual Responsibility Contract, and Tutoring.

Table5

**Frequency Distribution of Times Selected and Mean Times Selected by
Each Respondents Most important EOP&S service for Persistence.**

List of Services	Number	Sum	Mean
Book Service	310	70	.23
EOPS Grants	310	62	.20
EOPS Education Plan	310	51	.16
EOPS Orientation	310	46	.15
EOPS Academic Counseling	310	37	.12
Priority Registration	310	33	.11
EOPS Tutoring	310	33	.11
Personal Counseling	310	29	.09
EOPS Child Care	310	20	.06
Career Guidance	310	20	.06
EOPS Transfer Services	310	15	.05
Peer Advising	310	10	.03
Emergency Loan	310	8	.03
Other	310	5	.02
Clubs	310	5	.02
Basic Skills	310	4	.01
EOPS Mentor	310	3	.01
Summer Readiness	310	2	.01
Progress Monitoring	310	2	.01
Cultural Events	310	0	.00

Table 6
Frequency Distribution of Times Selected and Mean Times Selected by Each
Respondents Most Influential EOP&S Service for Persistence.

List of Services	Number	Sum	Mean
Book Service	310	62	.20
EOPS Education Plan	310	53	.17
EOPS Grants	310	52	.17
EOPS Academic Counseling	310	38	.12
EOPS Orientation	310	34	.11
Personal Counseling	310	31	.10
Priority Registration	310	28	.09
EOPS Tutoring	310	26	.08
EOPS Child Care	310	20	.06
Peer Advising	310	16	.05
Career Guidance	310	16	.05
EOPS Transfer Services	310	11	.04
Other	310	7	.02
Basic Skills	310	6	.02
Emergency Loan	310	5	.02
Summer Readiness	310	5	.02
Clubs	310	5	.02
Progress Monitoring	310	3	.01
EOPS Mentor	310	2	.01
Cultural Events	310	0	.00

The EOP&S students surveyed identified the degree of benefit that was linked to each of the services by responding to a Likert-type scale in response to Survey Question #11. Responses to Survey Question #11 could vary along a five point rating scale ranging from “Extremely Beneficial” to “Never Used”.

A strong majority of EOP&S students rated both Books and Grants as “Extremely Beneficial”. In the cluster of educational related services such as Counseling, Educational Planning and Priority Registration were similarly reported as “Extremely Beneficial” (see Table 7).

The findings related to Survey Question #11 also indicate that a preponderance of EOP&S students derive some significant benefit from program services. However, there are subtle differences between students frequency of responses as exhibited in Table 7 and the mean scores for each service as compiled for analysis in Table 8. Books remain a top ranking followed by EOP&S Counseling and Priority Registration. Here Grants are ranked fourth followed by Education Plans.

When the frequency of responses to the Likert-type rating scales are collapsed by combining both “Extremely Beneficial” and “Beneficial” responses (Table 9), it was discovered that Counseling and Education Plans outscore Book Service and Grants, and that Priority Registration services advances in ranking on both the most *important* service and the most *influential* service. The composite of ranking revealed the top four elements to be Book Services, Grants, Education Planning and Academic Counseling, in that order (see Table 10). In addition, the relative rankings of each of these services related to frequency of use, perceived importance, level of influence and the reported benefit are also shown in Table 10.

Table 7**Rank-Order of EOP&S Services by Percent of Frequency of Reported Benefit.**

EOP&S Services And Activities	Extremely Beneficial	Beneficial	Somewhat Beneficial	Did not Benefit	Waste of Time	Never Used
Book service	75.5	15.9	4.1	0.3	0.0	4.1
Grants	70.6	18.7	3.1	1.0	0.0	6.6
Priority Registration	69.9	20.8	3.2	0.7	0.4	5.0
Counseling	65.2	28.3	4.1	0.3	0.3	1.7
Education Plan	58.0	33.9	3.9	0.7	0.4	3.2
Tutoring	41.7	31.1	9.9	1.1	0.7	15.5
Orientation	40.9	37.1	16.4	1.7	0.7	3.1
Mutual Responsibility Contract	39.4	36.6	10.0	1.1	0.7	12.2
Peer advising	39.2	27.7	9.7	2.5	0.7	20.1
Workstudy	38.6	24.5	10.1	2.5	0.0	23.8
Emergency Loan	35.7	18.8	2.5	3.6	0.4	39.0
Award/Ceremony	34.5	20.9	6.8	4.0	1.4	32.4
Progress Monitoring	32.1	30.0	13.0	2.2	1.1	21.7
Child Care	30.5	13.6	8.2	4.7	0.0	43.0
Workshops	28.7	32.7	11.6	2.5	1.1	23.3
Mentoring	24.7	22.5	11.2	3.0	1.1	37.5
Summer Readiness	23.9	21.7	9.6	3.7	1.1	40.1
Cultural Events	23.2	22.1	14.1	2.9	0.4	37.3

Table 8
Rank-Order of EOP&S Services by Benefit Mean scores

EOP&S Services	Number	Mean	Std. Deviation	Min	Max
BOOKS	290	1.46	1.09	1	6
EOPS counseling	290	1.48	.86	1	6
Priority Registration	279	1.56	1.19	1	6
EOPS grants	289	1.61	1.30	1	6
Ed plan	283	1.61	1.02	1	6
EOPS orientation	286	1.94	1.10	1	6
EOPS contract	279	2.24	1.58	1	6
EOPS Tutoring	283	2.35	1.73	1	6
Peer advising	278	2.58	1.88	1	6
EOPS Workstudy	277	2.71	1.98	1	6
Progress Monitoring	277	2.75	1.88	1	6
EOPS workshops	275	2.84	1.90	1	6
EOPS awards ceremony	278	3.14	2.14	1	6
Emergency Loan	277	3.31	2.26	1	6
EOPS Mentoring	267	3.46	2.11	1	6
EOPS Cultural events	276	3.47	2.08	1	6
Summer Readiness	272	3.57	2.13	1	6
EOPS child care	279	3.59	2.22	1	6

Table 9

**Rank-Order of top Eight EOP&S Services by percent of reported Benefit
With Combined Extremely Beneficial and Beneficial Frequency of Response.**

EOP&S Services And Activities	Extremely Beneficial	Beneficial	Total Combined Percentage
Counseling	65.2	28.3	93.5%
Education Plan	58.0	33.9	91.9%
Book service	75.5	15.9	91.4%
Priority Registration	69.9	20.8	90.7%
Grants	70.6	18.7	89.3%
Orientation	40.9	37.1	78.0%
Mutual Responsibility Contract	39.4	36.6	76.0%
Tutoring	41.7	31.1	72.8%

Table 10

Composite of Findings for the Top Nine EOP&S Services
Compiled to answer Research Question #2 as indicated by Rank.

Services	Rank of Use	Most Important	Most Influential	Benefit of Service	Mean Benefit Responses	Combined Benefit Responses	Mean Rank
<u>TANGIBLE SERVICES</u>							
BOOK SERVICE	2	1	1	1	1	3	1.5
Grants	4	2	3	2	4	5	3.3
<u>Academic RELATED SERVICES</u>							
ACADEMIC COUNSELING	5	5	4	4	2	1	3.5
Education Plan	6	3	2	5	5	2	3.8
Priority Registration	3	6	7	3	3	4	4.3
ORIENTATION	1	4	5	7	6	6	4.8
TUTORING	7	7	8	6	8	8	7.3
Personal Counseling	8	8	6	N/A	N/A	N/A	7.3
Mutual Contract	N/A	N/A	N/A	8	7	7	7.3

Research Question #3: What specific program activities do EOP&S students identify as contributing to their persistence?

To examine the various elements and aspects that represent contributions to student persistence, the researcher determined that it was necessary to develop a comprehensive approach to analyze those elements and aspect. More specifically, it was necessary to analyze a compilation of support services and approaches such as elements of perceived benefits, incidence of use, ratings of importance and level of influence collectively. Therefore the strategy and approach selected for implementation was to determine a “composite of findings”. This composite of findings were presented earlier in the study by listing the top four services as Book Service, Grants, Educational Planning and Academic Counseling, in that order. An inspection of Table 10 allows additional comparisons among the specific EOP&S program areas and activities that specific EOP&S program areas and activities that students perceive contributed to their persistence to be made.

To form a contrasting point of view the researcher included Survey Question #5 which asks students to identify the “*Least helpful* EOP&S services”. Here analysis of the relative value of all 20 of the EOP&S services to students reveals that the *least helpful* services provided were Child Care and Clubs. Table 11 displays the full ranking of all 20 EOP&S services from the least to most helpful. All 20 services were rank-ordered from least helpful to most helpful (see Table 11). This data is provided for infomercial purposes.

Information was also gathered from the respondents via open-ended question including what department on campus conveyed EOP&S students the best feeling of being most welcome. This question was intended to obtain and highlight information as

to the location on campus that students were most likely to be integrating to the institution and/or developing a sense of belonging. The results indicate that 65% of the students reported that the EOP&S programs was the campus department that made them feel the most welcome. In vivid contrast, Counseling departments were second but with only 8% and were followed by a 7% response rate or less for all other departments (see Table 12).

Another open-ended question asked with which department the respondent had the “best personal connection”. The results displayed in Table 13 clearly designate EOP&S as the campus department where students have the best personal connection posting a 66% selection rate once again followed by the Counseling department with a mean score of only 8%. In addition, other campus departments lag even further behind EOP&S.

Survey Question #8, asked EOP&S students to identify college courses that they perceived to be the most helpful in achieving their college success. EOP&S students identified two specific academic related college courses, Math and English above all others. These two college courses may be considered more traditional classes. Math classes posted the highest mean ratings as 36% of the respondents followed by English classes, which were selected by 20% of respondents. The third highest college course, Computers reflects the new technology of the day. Computer classes posted a citation rate of 17%. College Success classes placed forth in the ranking with a mean score of only 8%. If Study Skills classes were added to College Success courses, since both

Table 11The Least Helpful EOP&S Service Frequency of Response and Mean Percentage.

List of Services	Number	Sum	Mean	Std. Deviation
Child Care	310	55	.18	.38
Clubs	310	38	.12	.33
Other	310	29	.09	.29
Orientation	310	18	.06	.23
Summer Readiness	310	17	.05	.23
Peer Advising	310	16	.05	.22
Tutoring	310	15	.05	.21
Basic Skills	310	11	.04	.19
Personal Counseling	310	11	.04	.19
Emergency Loan	310	11	.04	.19
Cultural Events	310	10	.03	.18
Career Guidance	310	9	.03	.17
Book Service	310	6	.02	.14
EOPS Mentor	310	5	.02	.13
Progress Monitoring	310	4	.01	.11
Education Plan	310	4	.01	.11
Transfer Services	310	4	.01	.11
Academic Counseling	310	3	.01	.10
EOPS Grants	310	3	.01	.10
Priority Registration	310	2	.01	.08

Table 12**The Department that made you Feel Most Welcome Frequency of Response and Mean.**

DEPARTMENT	Number	Sum	Mean
EOP&S	310	200	.65
Counseling	310	25	.08
No Response	310	22	.07
Other	310	22	.07
Financial Aid	310	19	.06
Student Activities	310	6	.02
Admissions	310	5	.02
Transfer Center	310	4	.01

Table 13**The Department that you have Best Personal Connection with
Frequency of Response and Mean.**

Department	Number	Sum	Mean
EOP&S	310	206	.66
No Response	310	28	.09
Counseling	310	26	.08
Other	310	19	.06
Financial Aid	310	14	.05
Admissions	310	5	.02
Student Activities	310	3	.01
Transfer Center	310	3	.01

address instruction in study skills, the combined responses result in selection of 13% by respondents (see Table 14).

Survey Question # 9 asked students about category of individual most influential in causing them to persist. The highest number (91) and percentage (28%) of responses attributed to the category of individual EOP&S staff with this role (see Table 15). A close second ranking was an EOP&S Counselor with a 25% rating. If the number and percentage of all EOP&S personnel, Peer Advisors, Counselors and Staff were combined, the result would be an impressive number of (185) and percentage (66%) of EOP&S cited as the type of individuals that most influenced EOP&S students to persist in college. Conversely, the instructor category followed EOP&S Staff and EOP&S Counselors' in third place, posting a 14% rate of choice by the students surveyed. Trailing in the ranking were College Counselors (7%) followed by another student (6%), and family members (4%). See Table 15 for these and other details.

Turning to an analysis of whether perceptions differ among respondents in high persistence programs compared to those in low persistence ones, the data support the view that EOP&S students from high persistence colleges have slightly different perceptions of EOP&S services that contribute directly to their persistence than low persistence colleges (see Table 16).

Table 14

**Number and Frequency of Responses to
“The college class or course that provided the most help for your college success”.**

Courses	Number	Sum	Mean
English	310	111	.36
Math	310	61	.20
Computer	310	53	.17
College Success	310	25	.08
Other	310	20	.06
Speech	310	16	.05
Study Skills	310	15	.05
Psychology	310	15	.05
None	310	11	.04
PE	310	11	.04
Language	310	8	.03
Humanities	310	7	.02
Personal Enrichment	310	7	.02
Art	310	4	.01
Science	310	4	.01
Sociology	310	3	.01
Social Science	310	3	.01
Theater Arts	310	2	.01
History	310	2	.01
Ethnic Studies	310	0	.00

Table 15**Number and Frequency of Responses to “Individual who influenced you the most”.**

Individual Category	Number	Sum	Mean	Std. Deviation
An Individual EOP&S staff	310	90	.29	.45
EOP&S Counselor	310	81	.26	.44
An Individual Instructor	310	44	.14	.35
Another Student	310	31	.10	.24
Other	310	27	.09	.31
College counselor	310	22	.07	.26
EOP&S Peer Advisor	310	14	.05	.21
Financial aid staff	310	14	.05	.21
Family	310	11	.04	.11
Self	310	10	.03	.06
Mentor	310	7	.02	.15
Coach	310	4	.01	.11
Individual Student Service Staff	310	2	.01	.08
Club adviser	310	2	.01	.08

When data on perceptions of benefits of specific services from these two contrasting types of institutions are submitted to a Chi square analysis the results indicate that there is a significant difference relative to the benefits derived from Books and Grants (see Table 16). Table 16 also provides information on the treatment of data by a Chi square technique. In addition, findings reveal differences in how the different persistence groups rate the importance of the EOP&S program. These results can be reviewed in Table 17.

To summarize, the findings show that the appropriate answer to Research Question #3 is a listing of five services; Book Service; Grants; Educational Planning; Academic Counseling and Priority Registration.

Research Question #4: Are EOP&S students retained at a higher rate than non-EOP&S students?

Base on data secured from statewide MIS, it was apparent the differences in retention rates for the similar time period between Non-EOPS students who were enrolled in full-time study and EOP&S students served were in favor of the former group. Specifically, EOP&S student retention rates over a four years averaged 86.16% while non-EOP&S students stood at 86.25% (see Table 18).

Therefore the answer to Research Question #4 is clearly "No". EOP&S students are not retained at a higher rate than non-EOP&S students.

Although not a part of the original research agenda, the comparative academic achievements of the EOP&S and non-EOP&S students were analyzed by comparing grade point averages of the two groups, EOP&S and non-EOP&S. The results indicate

Table 16

**Combined Extremely Beneficial and Beneficial Mean Scores of
EOP&S services Compiled by Cross-Tabulation of Persistence levels.**

EOP&S Services	High Persistence	Median Persistence	Low Persistence	Mean
BOOK SERVICE*	87.9	89.6	98.6	92.0
Grants*	94.6	82.0	94.7	90.1
Counseling	94.6	95.2	89.4	93.1
Education Plan	95.6	93.3	84.9	91.3
Priority Registration	93.3	90.9	86.9	90.4
ORIENTATION	81.5	76.8	75.3	77.8
TUTORING	77.0	68.1	75.3	73.5
Mutual Contract	80.5	72.9	75.7	76.4

*** DENOTES ALPHA < .05 LEVEL OF SIGNIFICANCE ***

Chi Square Tests for Book Service

Test	Value	Df	Sig.
Chi Square	21.205	8	.007

Chi Square Tests for Grants

Test	Value	Df	Sig.
Chi Square	16.055	8	.042

Table 17**The Importance of EOP&S rating by Persistence level Cross-Tabulation.**

Rate of Importance	Persistence level			
	High	Median	Low	Mean
Very Important	70.5%	86.8%	79.7%	79.9%
Important	25.3%	10.9%	19.0%	17.5%
Above Combined scores	<u>95.8%</u>	<u>97.6%</u>	<u>98.7%</u>	<u>97.4%</u>
Somewhat Important	4.2%	1.6%		2.0%
Not important		.8%		0.3%
Waste of time			1.3%	0.3%
Total	100%	100%	100%	100%

***Chi Square Tests for the Importance of EOP&S by Persistence level.**

Test	Value	Df	Sig.
Chi Square	16.706	8	.033

*** Denotes Alpha < .05 level of significance ***

Table 18

**State wide Retention rates for Three Academic years,
1994-95, 1995-96, and 1996-97**

YEAR	EOP&S RETENTION	FULL-TIME STUDENT	
		NON-EOP&S RETENTION	DIFFERENCE
1993-94	87.10%	86.40%	.70
1994-95	86.08%	86.12%	.04
1995-96	86.11%	86.36%	.25
1996-97	85.36%	86.13%	.77
Four year average	86.16%	86.25%	.09

that 78.6% of EOP&S student's earned an average GPA of 2.0 or greater while 81% percent of the non-EOP&S students surpassed this same benchmark (see Table 19).

Research Question #5: If EOP&S students are retained at a higher rate than non-EOP&S students, is there a difference in the number and/or pattern of involvement in general program activities and support service elements that EOP&S students identify as contributing to their retention?

This question was rendered moot since EOP&S students were not retained at a higher rate than non-EOP&S students.

Table 19

State-wide Data of the Four year average of Grade point averages (GPA) from 1993-94 to 1996-97

Cumulative			Grade Point Average			Cumulative			Grade Point Average		
<u>EOP&S</u>						<u>Non-EOP&S</u>					
Below-Ave	0 < 2.0	21.36%				Below-Ave	0 < 2.0	18.89%			
Average	2.0 < 2.6	24.75%				Average	2.0 < 2.6	22.36%			
Above-Ave	2.6 < 3.0	15.86%				Above-Ave	2.6 < 3.0	15.49%			
High	3.0 - 4.0	<u>37.98%</u>				High	3.0 - 4.0	<u>43.25%</u>			
		100.0%						100.0%			
<u>EOP&S GPA</u>						<u>Non-EOP&S GPA</u>					
2.0 to 4.0 = 78.64%						2.0 to 4.0 = 81.1%					

Research Question #6: What specific program activities do EOP&S students identify as contributing to their retention?

As with the previous research question, Research Question #6 was rendered moot by preliminary research findings.

Research Question # 7: Do higher EOP&S program funding levels correlate with higher persistence levels?

Statewide EOP&S funding data were utilized to compare average funding allocations related to cost per student over a recent three-year period (1995 through 1998) on the assumption that such an average would give a more stable index of funding than if a single year was solicited. Program participant persistence rates were taken from 1997. A Person Product Moment (PPM) correlation coefficient was $-.513$. This finding indicates a moderate inverse relationship exists between program funding and EOP&S Student persistence at the nine colleges surveyed. Therefore the answer to Research Question #7 is “No”. There was found to be a moderate negative relationship between funding and EOP&S student persistence.

Research Question #8: Do higher EOP&S program funding levels correlate with higher student outcomes?

The same statewide funding data were accessed and used to compare funding allocations with student self reported grade point averages, on the assumption that grades may provide an indication of student outcomes. The PPM correlation coefficient produced a coefficient of $+.093$. This finding indicates that there is very little evidence of a relationship between the level of funding and student grade point averages or student outcomes. Therefore the answer to Research Question #8 is “No”. There is little evidence of a relationship between program funding and EOP&S student grade point averages.

The researcher also accessed statewide persistence data over the same period to compare with student self reported grade point averages of the student respondents. The PPM correlation coefficient produced a coefficient of $+0.367$. These results indicate that there is evidence of a moderate relationship between persistence level and student grade point averages.

A desire to obtain a clearer understanding of the implications of the results and observations pertaining to the findings lead the researcher to analyze and compare the high persistence program student responses with the low persistence program student responses on eleven of the survey questions. It was the belief of the researcher that the comparison of the two different group responses may help to highlight and/or identify specific successful program activities. To accomplish this task of isolating the two different group responses to survey questions, the researcher utilized the Cross Tabulation SPSS statistical function to carry out Chi square tests with an alpha level of $.05$ selected as the level of significance.

The initial results of the Cross Tabulation statistical procedure performed on eleven of the fourteen survey questions indicated that four of these analysis did not yield a significant difference between high persistence program students and low persistence programs students.

More specifically, there was no significant difference between the high persistence program student responses and the low persistence program students for the following four Survey Questions:

Survey question#3 How many times you have used this one most important Service?

Survey question #5 Select the Least Helpful EOP&S support service.

Survey question #8 Select the type of College course that provided the most help.

Survey question #10 Rate how important the EOP&S program is to you.

Seven of the remaining eleven analysis exhibited a difference in pattern of response between high persistence program students and low persistence program students. More specifically, the following results indicate the degree of significance of differences in responses provided by the two different student groups.

Survey question #1: students were asked to select all the EOP&S support services they have used on a regular basis.

The Book Service cross tabulation yielded a 67% response from high persistence program students in comparison to 83% for the low persistence program student response rate. This response difference is considered to be significant at the .05 level.

Chi Square Tests for Book Service (regular use).

Test	Value	Df	Sig.
Chi Square	6.254	1	.012**

** Denotes a level of significance of <.05.

Survey question #2: Students were asked to select “the one most important EOP&S service that contributed to your continued attendance and success in college”.

The findings from the application of a chi square test of the differences in rating of selection of Grants as the most important service exhibited a 29.9% response rate from the high persistence program students while the low persistence programs students posted a 12.7% response rate. This response difference was found to be significant at the .05 level.

Chi Square Tests for Grants as the “Most” important service.

Test	Value	Df	Sig.
Chi Square	7.50	1	.006**

** Denotes a level of significance of <.05.

The results of selection of Book Service as the most important service yielded only an 11% response rate from high persistence program students compared to a 32.9% response rate for the low persistence program students. This difference in the group responses also was found to be significant at the .01 level when chi square was applied.

Chi Square Tests for Book Service (Most important service)

Test	Value	Df	Sig.
Chi Square	12.202	1	.000*

* Denotes a level of significance of <.01.

Survey question #4: Students were asked to select “the one EOP&S activity that you feel has been most influential in keeping you enrolled in college”.

The findings from the cross tabulation of the most influential service indicate that Education Plans were close to being significant by posting a Chi square of .058. The high persistence program students yielded a 20% response rate in comparison to a 10% response rate from the low persistence program students.

Chi Square Tests for Education Plan as “Most” influential service.

Test	Value	Df	Sig.
Chi Square	3.583	1	.058

However, in contrast to the responses to Education Plans, Book Services

exhibited a pattern that would be considered to be significant. The response rate from the high persistence program students for Books as the most influential service was 9% while the low persistence programs students posted a 27.8% response rate. This response difference is considered to be significant at the .01 alpha level.

Chi Square Tests for Book Service as “Most” influential service.

Test	Value	Df	Sig.
Chi Square	10.347	1	.001*

Survey question # 6: Students were asked to indicate the Department on Campus that made you feel the most welcome.

Overall when all categories of places and departments were considered in the Chi square calculation the results produced a pattern indicating a significant difference for the two different levels of persistence with all categories of places where student felt most welcome.

Chi Square Tests for all categories of places “Most” welcome.

Test	Value	Df	Sig.
Chi Square	35.025	9	.000*

In addition the results from the specific cross tabulation for EOP&S as the “most welcome” department yielded only a 55% response rate from high persistence program students compared to a 78.5% response rate for the low persistence program students. This amount of variance in the group responses also is considered to be significant.

Chi Square Tests for EOP&S as the “Most” welcome place.

Test	Value	Df	Sig.
Chi Square	10.083	1	.001*

Survey question # 7: Students were asked to indicate the department on campus you have the best personal connection with.

The findings from the cross tabulation of EOP&S as the department that students had the best personal connection with exhibited a 51% response rate from the high persistence program students while the low persistence programs students posted a 73% response rate. This response difference is considered to be significant at the .05 alpha level.

Chi Square Tests for EOP&S were students had "Best" connection with.

Test	Value	Df	Sig.
Chi Square	8.785	1	.003*

The findings from the cross tabulation for the Counseling department as the place on campus that students had the best personal connection with exhibited a 15% response rate from the high persistence program students while the low persistence programs students only posted a 5% response rate. This response difference is considered to be significant at the .05 alpha level.

Chi Square Tests for Counseling (Best connection)

Test	Value	Df	Sig.
Chi Square	4.891	1	.027*

Survey question # 9: Students were asked to select the type of individual who influenced your continued enrollment in the college the most.

Overall, when all categories of individuals were considered in the Chi square calculation the results produced a pattern indicating a significant difference for all categories of individuals who were considered most influential between the high and low persistence groups. More specifically, Chi square produced a .006 level of significance for all categories of student responses from the two different groups.

Chi Square Tests for all categories of Individual who influenced you the most.

Test	Value	Df	Sig.
Chi Square	41.937	22	.006*

However, when the individual categories were compared, there were four categories of individuals that yielded significant response patterns. They are: Instructors, EOP&S counselors, EOP&S staff, and EOP&S peer advisors.

The findings from the cross tabulation of the most influential individual indicated that the Instructor category was significant by posting a Chi square of .046. The high persistence program students yielded a 20% response rate in comparison to a 9% response rate from the low persistence program students.

Chi Square Tests for Instructor as the Individual who influenced you the most.

Test	Value	Df	Sig.
Chi Square	3.979	1	.046*

The findings from the cross tabulation of the most influential individual indicated

that the EOP&S counselor category posted a significant difference pattern by generating a Chi square value of .002. The high persistence program students yielded a 31% response rate in comparison to an 11% response rate from the low persistence program students.

Chi Square Tests for EOP&S Counselor as the Individual who influenced you the most.

Test	Value	Df	Sig.
Chi Square	9.633	1	.002*

The findings from the cross tabulation for the EOP&S staff as the most influential individual exhibited a 20% response rate from the high persistence program students while the low persistence programs students posted a 36% response rate. This response difference is considered to be significant at the .05 alpha level.

Chi Square Tests for EOP&S Staff as the Individual who influenced you the most.

Test	Value	Df	Sig.
Chi Square	5.611	1	.018*

The findings from the cross tabulation for the EOP&S peer advisor as the most influential individual exhibited a 4% response rate from the high persistence program students while the low persistence programs students posted a 12.7% response rate. This response difference is considered to be significant at the .05 alpha level.

Chi Square Tests for EOP&S Peer Advisor (Individual who influenced you the most)

Test	Value	Df	Sig.
Chi Square	4.331	1	.037*

Survey question #11: Students were asked to rate the EOP&S services according to how they felt support services helped them or benefited them.

The results from the cross tabulation for how Book Services benefited students yielded a 62.6% response rate from high persistence program students compared to a 81.3% response rate for the low persistence program students. This amount of variance in the group responses also is considered to be significant at the .05 level.

Chi Square Tests for all EOP&S services (Beneficial service rating)

Test	Value	Df	Sig.
Chi Square	10.132	4	.038*

- DENOTES ALPHA < .05 LEVEL OF SIGNIFICANCE *

Demographic findings

The sample population exhibited a distinct and unique variety of student participants. For example, the analysis of the gender population indicated that there are more female participants than male. A total of 66% of the EOP&S students surveyed were female and 34% male. In contrast the statewide non-EOP&S full-time student population in 1995 was 52% female and 48% male. The ethnic breakdown for EOP&S indicates that there are more students of color participating in the program than non-EOP&S full-time students. More specifically, in 1994-95 white students made up 24% of the EOP&S student population and 48% of the non-EOP&S full-time student population. Table 20 provides a more detailed view of the ethnic breakdown of the statewide EOP&S populations average from 1993 to 1997. In addition, Table 21 provides the ethnic break

down for the sample population which reflects a close reflection of the statewide ethnic data presented.

Overall EOP&S serves the new majority or non-white populations at a rate of 72% in comparison to the non-EOP&S full-time students populations served who post a 49% level of service provided (See Table 20).

Another important aspect of the findings is the size of the EOP&S programs surveyed. The findings may be influenced to a small degree by the size of the student population served by the EOP&S program. Table 23 reveals the number of students served for the same academic years that coincide with the reported persistence levels. The researcher noted that the sample size of the low persistence program students is somewhat smaller than the other two persistence level groups and may influence the level of persistence because of the smaller sample size. However, the low persistence programs are still representative of the lowest mean average associated with statewide persistence levels which are well above the non-EOP&S college persistence rates.

Table 20**EOP&S and Non- EOP&S Student Ethnic breakdown 1993 - 97 (Four Year Average).**

Ethnicity	Statewide EOP&S	Non-EOP&S	Sample pop.
Asian/Pacific Islander	24.01%	18.49%	32.9%
Black African American	16.49%	6.75%	14.5%
Latino/Hispanic	29.18%	20.84%	21.6%
Native American	1.38%	1.16%	2.6%
Other Non-White	1.32%	1.74%	4.8%
White	25.10%	47.07%	21.3%
Unknown/not stated	2.50%	3.62%	2.3%
Total Non-White population served by EOP&S		General Non-EOP&S Non-White	
72.4%		49.31%	

Table 21
Ethnicity by Persistence level Cross-tabulation

Ethnicity		Persistence	Levels		
		High	Medium	Low	Total
Asian	Count	50	44	1	95
	% of Total	16.1%	14.2%	.3%	30.6%
Pacific Islander	Count		5	2	7
	% of Total		1.6%	.6%	2.3%
African American	Count	2	17	26	45
	% of Total	.6%	5.5%	8.4%	14.5%
Native American	Count	3	4	1	8
	% of Total	1.0%	1.3%	.3%	2.6%
Latino/Hispanic	Count	23	24	20	67
	% of Total	7.4%	7.7%	6.5%	21.6%
White	Count	12	33	21	66
	% of Total	3.9%	10.6%	6.8%	21.3%
Other	Count	4	5	6	15
	% of Total	1.3%	1.6%	1.9%	4.8%
No Response	Count	3	2	2	7
	% of Total	1.0%	.6%	.6%	2.3%
Total	Count	97	134	79	310
	% within	31.3%	43.2%	25.5%	100.0%

Table 22
Gender by Persistence level Cross-Tabulation

		Persistence Levels			
Gender		High	Medium	Low	Total
Male	Count	28	50	24	102
	% within Gender	27.5%	49.0%	23.5%	100.0%
	% of Total	9.3%	16.7%	8.0%	34.0%
Female	Count	66	79	53	198
	% within Gender	33.3%	39.9%	26.8%	100.0%
	% of Total	22.0%	26.3%	17.7%	66.0%
Total	Count	94	129	77	300
	% within Gender	31.3%	43.0%	25.7%	100.0%
	% of Total	31.3%	43.0%	25.7%	100.0%

Table 23
Student Counts for Selected EOP&S Programs 1993 to 1998

COLLEGE	93-94	94-95	95-96	96-97	97-98
CERRITOS (1)	889	896	920	931	937
WEST VALLEY (2)	381	432	401	376	305
GOLDEN WEST (3)	944	984	990	1000	999
BUTTE (4)	1071	1090	1158	1189	1166
FRESNO (5)	1214	1055	1093	1248	1256
COASTLINE (6)	144	141	136	142	149
VISTA (7)	164	194	193	232	292
BARSTOW (8)	403	314	380	407	320
PALO VERDE (9)	239	185	195	217	189

These research findings and response trends become more relevant to the realm of college attrition theories and retention models when we consider the characteristics associated with EOP&S students and the program eligibility. More specifically, all EOP&S students are required to be low- income, specifically having an annual income of less than \$16, 000 for a family of four or \$7,500 for a single independent student. In addition, EOP&S students must be educationally under-prepared, i.e., having limited college preparation skills, low high school achievements (G.P.A less than 2.5), received remedial or pre-collegiate instruction, or be a member of an under-represented ethnic group, first generation college student or have parents that are non-English speakers.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

“Go to the river and take a drink, do not try to drink the whole river.” (African Proverb)

Summary of Findings

The purpose of this chapter is to summarize the overall information gathered through the research, provide conclusions and to make recommendations for further research. Conclusions were formulated from the data that were gathered, analyzed and presented in a systematic manner. In addition implications for future research and analysis are also delineated within this final chapter.

The general function and purpose of this research study was to help identify and determine what student support services (such as counseling, tutoring, grants and/or staff contact) the students involved in the special program, Extended Opportunity Programs and Services (EOP&S), perceive as having a positive affect on their persistence and/or retention within the community college system. Student perceptions and self reported attitudes were obtained through survey techniques from a select number of EOP&S programs based upon persistence trends of students from a recent four-year period.

These student trends were analyzed for specific programs at three different levels of persistence, i.e., highest, median, and lowest. The respective groupings were surveyed to determine qualitative elements of programs services students associate with their persistence rate. According to Brookshaw (1995) student success versus failure is often the critical difference between students who access support services effectively and those who do not. Overall community college administrators need to better understand that student support service programs like EOP&S are an indispensable part of the total persistence process that keeps many at risk students in college.

Based upon the data presented and the statistical analyses applied in this research project several conclusions were established. First a perusal of the findings basically indicated that the consistent qualitative elements of programs services that EOP&S students associate with their persistence include nine supportive services and activities: Book Service; Grants; Academic Counseling; Education Plans; Priority Registration; Orientation; Tutoring; Personal Counseling and Mutual Responsibility Contract. More specifically, the top five services EOP&S students report as significant to their persistence either as important, influential or beneficial were: Book Service, Grants, Academic Counseling, Education Plans and Priority Registration.

The importance of this study, that was focused on the special program Extended Opportunity Programs and Services (EOP&S) which serves emerging low-income populations, was enhanced by the fact that this clientele will soon become the new majority in many community colleges across the nation. Overall, the study substantiated that the EOP&S program provides a wide variety of support services that increase rates of persistence but not of retention. The eminent issue to keep in mind is that persistence is

the more significant goal for long-term student success.

The operational definition of persistence used throughout this study was the continued enrollment of students from one term to another. In more specific terms, persistence is continued enrollment up to a student's goal attainment, be it transfer, degree or employment. The essence of this study indicates that persistence is by far the more important priority of focus for campus support systems and it should take precedence over student retention as a primary goal. This is a statement of purpose that is based upon the reality that retention is the first step in the multi-faceted process of persistence. In order for students to persist they must first be retained. In other words persistence is the long-term goal and retention the short-term goal.

The question still remains concerning how could the research find persistence without retention. The key to answering this question is in the analysis and identification of the population of students who are now attending community colleges. For the most part the current population of community college students includes students who are working, have children or outside obligations, unlike the traditional four-year college student. Community college students may be retained for one semester however, if students do not develop a sense of belonging or engagement with the community college they will not return to that institution the next term.

The development of solutions to the dilemmas posed by high student attrition was approached through the analysis of group patterns associated with persistence levels. Overall the group patterns indicated that EOP&S personnel along with faculty are important influences upon student persistence. In addition, a variety of support services were perceived to contribute to overall student persistence including services such as

Grants, Books, Academic Counseling and Educational Planning. The pattern of use for these important and influential services was one to three times for over 30% of the respondents and three to six times for almost 25% of the participants.

The comparison of factors in institutions representing the three different levels of persistence provides fundamental evidence pointing toward the identification of key persistence interventions. For example the students at institutions representing all three levels identify Books and Grants as key intervention tools for their persistence. In congruence with these findings, Dennis (1998) reports that between 1980 and 1994 the rating of financial aid as very important for student's college choice increased from 16% to 30%. In addition, Dennis (1998) surmised that with each additional year it becomes more and more evident that financial aid considerations are becoming the primary reason for persistence or attrition. However, in the present study only the high persistence students identified Education Planning over Grants as most influential for their persistence according to the findings.

Here again, Dennis (1998) appears to be in agreement with the overall findings in that she believes that the single effort of offering more financial aid will not guarantee higher persistence rates. More specifically, Dennis (1998) indicates that many college students will list financial problems as one of the main reasons for withdrawing from college. Yet in many cases according to Dennis (1998) it is more than that. "Students have feelings that they don't belong, or question how to fit into the school environment (Dennis 1998 p. 79)."

According to Dennis (1998), Suffolk University had a Special advising program that served some 300 high-risk students by assigning faculty as special advisers. The

persistence rates for the 300 students in this program ranged from a high of 93% to a low of 85%. Again, these finding by Dennis (1998) are congruent with the present research study findings of the high persistence program students who indicated that counseling by certificated staff was most important and influential. At this time statewide policies for the EOP&S program require all participants to see an academic counselor at least two times each term. This program requirement appears to be an important factor in the identification and implications of the elements of program success. However, it also appears that student perceptions' concerning academics is even more highly related to support services and directly associated with student's attitudes.

Another variable found to be related to high persistence programs was the variety of places that students identified where they felt they connected or were made to feel welcome. The interpretation of this finding was that the high persistence program students had a much wider variety of places to connect and integrate with, than the low persistence program student populations. Again this is similar to, Dennis (1998) who indicated that it is the faculty who most often interact with students and it is the faculty who can most influence a student's decision to stay in college or withdraw. This premise was supported by the findings of the present study relative to the place students felt most welcome and the place where they reported they felt a personal connection. Somewhat different than the high rating that the overall student survey respondents give the EOP&S program as the place of connection, the high persistence program students reported a wider variety of places where they reported making personal connections. The same was true of the overall EOP&S student responses for the identification of the type of individual that influenced them the most, wherein we found EOP&S staff out-scored all

other campus personnel. However, the findings in the case of high persistence program students was that these were more associations with a cross-section of certificated staff compared with low persistence program students. In addition, the researcher was surprised that the Family was not more highly considered as being influential to EOP&S students. However, it could be speculated that there may be some basic differences between the support and encouragement students receive from family to attend college and the support that they receive from college related personnel once the student is actually in the new campus environment.

Overall the EOP&S programs were found to exhibit an atmosphere of inclusion that appears to be associated with persistence. That inclusion was focused upon the EOP&S program activities that help to integrate students with the college environment. When looking at the patterns pertaining to the categories of integration, involvement and connection, we see that EOP&S is ranked far ahead of other departments on campus in providing these key elements. The findings are similar to those in a study conducted by Maxwell (2000), which supported the premise that community college student connections are more associated with their studies than with extracurricular activities. In addition, analysis of the results revealed that respondents identified as the least helpful activities to be those of Clubs and Child Care. These research findings directly support the Maxwell study, which indicated that community college students do not relate to extracurricular activities in the same manner or ratio as do students at four-year institutions.

The present research findings also showed that the largest Black student populations surveyed were found among the institutions with the lowest level of

persistence programs. Conversely it was found that the two new emerging student populations of Asian and Latinos were among the largest student populations in institutions with the higher persistence level programs. The attending differential responses to the survey questions may be helpful in assisting college administrators in program activity selection and focus. More specifically, African American students appear to prefer tangible services such as Book Services and Grants over academic related resources, which were preferred by Asian and Latino populations. In concert with these findings Brookshaw (1995) discovered that financial aid and Book Service awards were determined to have a positive and significant effect on persistence among single parent EOP&S students in comparison to non-EOP&S single parent students.

In general if attention is focused on the hierarchy of student needs it is possible to identify a distinct pattern among the low persistence program student groups. This may help guide program priorities and intervention strategies for enhancing rates of persistence. Conversely, the needs of the more advanced persisters requires more academic related elements for prolonged academic success. For example educational planning posted a 95% rating as beneficial for high persistence program students in contrast to an 85% beneficial ratings for low persistence students respondents. A similar ten-point difference was found among responses to Book services; however, these were in the opposite direction as the low persistence students posted a 98% rating in contrast to 87% for high persistence program students. The patterns are somewhat predictable when Maslow's theory of the hierarchy of needs is applied within the present context of higher academic institutions and student needs.

According to Perez (1999), students who met more often with EOP&S counselors, attended more EOP&S workshops, and met more often with instructors, were more likely to persist than students who did not receive or participate in such supportive activities. In addition, the findings indicated that the more academically related services and/or activities that the EOP&S students receive, the more the students become integrated. This in turn increases the level of persistence. For example, Perez (1999) discovered through his dissertation study of EOP&S students at Long Beach City College that there was a higher likelihood of persistence among EOP&S students who met more often with an instructor or with an EOP&S counselor than among those who didn't.

Overall it must be stressed that a combination of support services, that includes both tangible support services such as Financial Aid and Books along with academic related services such as Education Plans and Academic Counseling is more likely to promote significant positive persistence results.

Conclusions

The critical objective pertaining to the research findings is to determine if these results direct community college campuses toward the adoption of a more inclusive approach to student services and the duplication of the efforts of the EOP&S program campus wide. The overall results would resoundingly support this action. However, the results also suggest some precautionary measures should be considered. Among these are that EOP&S programs should have a solid system of accountability and regularly scheduled evaluations designed to insure that the EOP&S programs exhibit positive outcomes. More specifically, as part of the current operational statewide regulations, all

EOP&S students are required to see a certificated counselor two times per semester. Further more, EOP&S programs must submit annual plans, which include program outcomes. In addition, all EOP&S programs must undergo a formal on-site evaluation once every five to six years in collaboration with campus accreditation efforts as part of the strict program accountability requirements. It is recommended that these stringent program requirements statewide be maintained wherever and whenever EOP&S program elements are expanded campus-wide even though it is recognized that this may be a tremendous and overwhelming undertaking.

A key aspect and concern in proposing statewide implementation of EOP&S program activities on a campus wide basis is the anticipated resistance to more accountability measures in the face of the realities of community college campus cultures. According to Dennis (1998), to be successful a college's persistence program must match the organizational culture and personality of the institution. Additionally, Dennis (1998) indicates that there cannot be a successful persistence program without the involvement of key faculty. Additionally resistance is likely due to a scenario of increased state funding costs.

Overall the research findings highlighted here should help college administrations to encourage and guide faculty and counselors toward actions that promote and build the increased involvement and integration of all students. Faculty and staff need to be trained in recognizing and responding to the practical aspects of hierarchy of student needs based upon outcomes and research. In general counselors and faculty should be working toward student entrenchment into the local college environment. Students need a strong sense of belonging in the community college instructional environment.

Realistically, for community colleges, it is not involvement in to extra-curricular or club activities that promote persistence. Rather it is involvement in academic related activities and endeavors, ranging from learning communities to required one to one student faculty/counselor meetings that achieve this goal. In addition, an effective approach to promoting persistence should also be related to each individual student's needs. In other words, community college students should be treated with respect and motivated to develop educational plans and to implement academic related actions to better meet their individual educational goals.

Marguerite Dennis (1998) reports implementing campus persistence activities in concurrence with Friedrich Engel's adage of "an ounce of action is worth a ton of theory". This principle is supported by the current research findings of the present study, which found a negative correlation between EOP&S funding and persistence levels. More consideration should be given to the implementation of specific strategies and actions of programs, not on a demand for or discussions associated with higher funding levels.

The results of the present study reinforce the notion that community colleges need to take on a vision or strategic goal similar to that of Suffolk University. According to Dennis (1998) Suffolk University views prospective students as alumni not as freshman. In this regard, all prospective students are told that Suffolk University is not interested in enrolling them, but rather they are interested in graduating them. "The best research and organizational plan cannot compensate for a poorly trained or non-motivated staff (Dennis 1998 p. 11)."

Also the fact that EOP&S programs are successfully serving a more diverse

population than the general community college campus indicates that college administrators should not use diversity as a potential excuse or barrier for their current lack of success with new emerging populations. In spite of the high diversity rate EOP&S programs continue to post positive student outcomes.

Undoubtedly, with changing population demographics and the equally challenging new economy and workforce needs, the necessity for effective community college student support activities and special services is the primary goal and prize to be won. The mission of the community colleges will be constantly altered by the changing times and this every present fact will be substantially greater in the 21st century.

However, at the same time that community colleges receive countless requests from policy makers for a greater return on higher education funds invested, they are expected to produce at higher levels of quality. In addition, recognizing the significant role California Community Colleges play in edifying the essential social and economic success of the state, there is a compelling need to maintain equitable student access to quality postsecondary education and workforce preparation opportunities. Both equity and excellence are expected in the future.

Given the limited resources and the immense void between student access and student support service funding, a proactive response will be necessary to empower community colleges, and students to jointly shoulder the responsibility of improving and maintaining quality higher educational opportunities for the future. To accomplish the vision of access with academic success in the 21st century, colleges must develop some set of strategic actions that insure the facilitation of student services outcomes and accountability directed toward increasing the persistence levels of community college

student populations. Strategic actions with the most potential for doing this are those actions based upon best practices. In addition, they must be those actions that both support and strengthen student support service activities and campus functions dedicated to the academic success of all community college students. EOP&S services provide a track record of such successes.

In order to develop viable persistence strategies it is quite reasonable to suggest that colleges utilize a proven process. For example, a simple process taken from the curriculum development model by Kaufman (1972) appears to have potential.

Kaufman's 1972 curriculum development model emphasizes the following important basic organizational considerations:

The needs of the society. = To have a diverse educated labor force and competent community members from college student populations.

The needs of the college. = To enroll and educate diverse populations and to maintain funding while meeting community needs.

The needs of the students = To have access to a nurturing college environment that assists them in obtaining their educational goals and objectives with a sense of belonging.

As part of the present study, to further assist colleges in the process of enhancing persistence rates, an approach was developed and labeled the Crawford Persistence Strategy Model 2000. It was adapted from the Kaufman developmental model of organization elements (1972). Emphasis was placed upon specific key elements related to college organizations that need to be included and considered in the development process for a persistence strategy and implementation.

These primary elements for considerations should be put in place through policy formulation, administrative rules and regulations and structured changes beginning with the college's internal organization, i.e., Administration, Academic Senate, Matriculation Committee, including all of whom determine college efforts and guide college results. These processes must accurately reflect the needs of the student and the community and must be constantly monitored to stay on task and to stay focused on the real imperatives associated with long term persistence efforts.

The College = Internal organization				The Community = External Elements
College Efforts		College Results		Societal Results Inputs
Inputs	Process	Products	Measurable Outputs	Community Needs & Outcomes
Campus Resources	Methods of operation	Level of Access	Retention Rates	A Diverse an Educated Community
Environment	Interventions	Student Education Plans	Persistence Rates & GPA	A Diverse Population of Competent Citizens
Funding	Action steps	Resource Centers	Graduation Rates	A Diverse Educated Workforce
Staffing	Strategies	Counseling	Certificates	Productive Citizens
Campus Policies	Campus Needs Assessment	College Success Classes	Transfer rates	A Proficient Community Environment

(Crawford Persistence Strategy Model 2000)

The model begins with the identification of the college's internal organizational needs. The college efforts are outlined along side the college results desired. The institution should begin with identifying the elements necessary to reflect efforts needed to create inputs and the actual process. The inputs relate to actual campus resources,

college's desired results. The results are divided into groups of desired products resulting from the efforts. Then along side the desired products identified listed are the all important measurable outputs to be use to validate and monitor progress and possible success. On the final column of the model are the community and societal results. This column relates to community needs and desired outcomes that benefit the overall society and community environment which the college exists within.

Further examples to include in the development process of persistence strategies, should consider the following key areas:

- Identify a sequence of activities and formal plans to help students make the connection with the campus. For example: Student/Faculty Mentor programs; Required Counseling; Learning communities; Student Resource centers; Math and English Labs; Staff Diversity Training
- Set up goal development sessions for new students where education plans are produced and individual persistence plans are created.
- Monitor student progress and have students meet with Faculty and/or Counselors to give students feedback, further encouragement and acknowledgement of progress toward student established goals.
- Setting goals is a key student support activity that promotes persistence.

The higher education academy continues to learn and validate how important it is to adapt the college environment, to be supportive, and to be inclusive of at-risk disadvantaged minority students. However, Tinto (1993) asserts that, in the final analysis, “the key to successful student persistence lies with the institution, in its faculty and staff, not in any one formula or recipe.”

More specifically, in this current climate of preparation for the new millennium, and the consistent call for more efficient accountability systems, California Community Colleges have the opportunity to transform the learning environment to better retain

students. The Council of Chief State School Officers, (1987) reminds us not to continue blaming the student for failing to fit the system, but rather to keep our eyes on the prize and encourage administrators and decision makers to design and implement a new institutional structure that provides appropriate educational opportunities and related support services to integrate and involve all students in the community college academy.

Now is the time to change the overall approach of community college institutions from exclusive educational opportunities to inclusive educational opportunities. Now is the time to adjust the vision and scope of postsecondary education to look beyond the open door of access upward and onward toward persistence to graduation as the true picture of success for tomorrow's community college students. This must include those who are low-income and who represent the new majority. Our noble endeavor of access, achievement and accountability becomes ever so important for those who will soon be the new majority.

Recommendations for Further Research

Tinto (1998) proposed, "we should direct our studies to forms of practice and let the knowledge gained from those studies inform our theories of persistence" (p. 175). Therefore, it is imperative that the elements of persistence be examined and revealed to enhance the achievements and success of community college students. To improve the quality of community college education and higher education in general, it is necessary to determine to what extent special support program services affect positive student performance and outcomes, i.e., persistence, grade-point averages, degree attainment or transfer to four-year institutions.

Dennis (1998) acknowledges that no one knows with absolute certainty, what makes a student enroll at a particular college or why that same student may decide to leave. However, Dennis (1998) contends, while each college campus is unique and specific to the student population and the campus culture it serves, there are some fundamental elements exhibited by all successful persistence programs which can be studied, modified, adapted, implemented, or copied. In general terms this is what this study was intended to highlight and reveal to the community college academy.

Therefore it is recommended that future studies focus on the comparison of Non-EOP&S students with EOP&S students, especially review attitudes and perceptions concerning the same topics of service level, activities, and integration with faculty and staff. In addition, future research should address the types of activities and services that actually have an impact and benefit both student populations, EOP&S and non-EOP&S. It is further recommended that studies be conducted applying a quasi-experimental research design utilizing analysis of data by inferential statistics so as to establish cause-and-effect relationships between interventions and outcomes. These would yield definitive research results pertaining to persistence. It is vitally important that relationships between specific campus activities and positive student outcomes or program elements associated with graduation and transfer be determined.

In conclusion, in-depth research is strongly recommended in order to establish even more credible evidence of the efficacy of EOP&S programs and their potential value with all students in the general community college population. The ultimate goal is to verify the effects of EOP&S supportive services on persistence and ultimately on student completion rates.

APPENDICES

(Sample Survey letter)

September 24, 1999

Dear Student,

I am seeking your cooperation and support as a participant in a research project that I am conducting with the intention of evaluating the support services available to you while enrolled in community college which helped or assist you in your efforts to persist toward your educational goal.

The main purpose of this study is to evaluate and determine which community college support services available to you as an EOPS student positively affected your enrollment in community college. This study is being conducted as part of my graduate study program requirements for an Educational Doctorate offered by the University of Nevada at Las Vegas. Your participation in this research project is voluntary and you may withdraw from participation at any time.

Please note that your participation in this research project will be kept totally confidential. All the information you provide and gathered will be used exclusively for the purpose of this research study and/or California Community College Chancellor's Office student performance outcomes, and it will not be used for any other purpose.

If you would like to know more about this research study and/or its conclusions, please feel free to contact me at (916) 323-5952 or address correspondence to Leonard M. Crawford, Student Services Specialist, California Community Colleges Chancellor's Office, 1102 "Q" Street, Sacramento, CA 95814.

Thank you for your time and consideration.

Sincerely,

Leonard M. Crawford
Student Services Specialist,
California Community Colleges Chancellor's Office

Protocol for Research Involving Human Subjects

Human subjects Protocol Leonard M. Crawford
 University of Nevada, Las Vegas Department of Educational Leadership
 Description of Study September 24, 1999

1. Subjects

The subjects of this study will be California community college students who are enrolled participants of the state funded Extended Opportunity Programs and Services (EOP&S) program for low-income educationally disadvantaged students. The researcher will select nine (9) California Community College EOP&S programs where approximately 800 EOP&S students will be surveyed and color or number coded for each campus. The survey will assess EOP&S student perceptions of supportive services provided.

2. Purpose, Methods, Procedures.

The purpose of this study is to survey the attitudes and perceptions of EOP&S students in California toward supportive services and retention intervention activities received.

The method of research will be a self-assessment survey (copy attached) consisting of 14 questions, mailed to each of the nine (9) community college EOP&S program directors with a transmittal letter explaining the survey process and appropriate procedures. In addition, the researcher will provide a transmittal letter for the students explaining the purpose of the study and the aspects of how their participation will be kept totally confidential. The data gathered from those EOP&S students who participate by completing and returning the survey will permit an analysis of EOP&S student attitudes and perceptions towards retention intervention activities and program supportive services. (See copy attached)

The procedure to be use for this research will include preparing the coded college list and mailing labels; preparing and mailing the coded survey instruments, along with a transmittal letter for the EOP&S program directors. In addition, a transmittal letter for the students will be included with each and every color-coded survey, which includes the purpose of the study and statement of confidentiality. The process for collecting and analyzing the data will include the use of SPSS software to report the findings.

3. Risks

Since the survey instrument will be numbered and color-coded the process of maintaining student confidentiality will be protected throughout the survey tabulations and ensuing publication (s), the risk factor is minimal and almost certain that no harm will come to any student or EOP&S program who participates in this research.

4. Benefits

Unlike the majority of retention and persistence research, which concentrates upon the characteristics of students attending 4-year colleges, this research will focus on the perceptions of students concerning support services received at 2-year colleges. In addition, this research is associated with 2-year community colleges and may provide much need analysis and assistance in segment wide planning, special program expenditures and the success of new community college populations.

EOP&S Student Survey Questions

Date of birth ____/____/____ Gender = Male ☐ Female ☐ Are you an EOP&S student? Yes ☐ No ☐ _____

Check Ethnicity Asian ☐ Pacific Islander ☐ African American ☐ Native American ☐ Latino ☐ White ☐ other ☐ _____

Community College Educational Goal: AA or AS degree ☐ Certificate ☐ Transfer to 4 yr. college ☐ other Education goal ☐ _____

How many semesters have you been in the EOP&S program? ____/____ Do you have a High School diploma? yes ☐ No ☐ _____

Planned completion date of Community College goal ____/____/____ What is your college Grade point average? ____/____/____

1. Select all the EOP&S Support Services and/or Program Activities you have used on a regular basis.
Please mark the appropriate activity from the list below that identify EOP&S services you have used on a regular basis.

A= EOP&S Orientation ☐
 B= Transfer services ☐
 C= Club Activities ☐
 D= Priority Registration ☐
 E= Career Guidance ☐
 F= Peer Advising ☐
 G= Academic Counseling ☐
 H= Tutoring ☐
 I= Educational and Academic Planning ☐
 J= Basic Skills ☐
 K= Grant money ☐
 L= Personal Counseling ☐
 M= Progress Monitoring ☐
 N= Summer Readiness ☐
 O= Emergency Loans ☐
 P= Cultural Events ☐
 Q= Child Care ☐
 R= Mentor program ☐
 S= Book Service ☐
 T= Other, specify _____ ☐

2. Select the one most important EOP&S support service or program activity that contributed most to your continued attendance and success in college.

A= EOP&S Orientation ☐
 B= Transfer services ☐
 C= Club Activities ☐
 D= Priority Registration ☐
 E= Career Guidance ☐
 F= Peer Advising ☐
 G= Academic Counseling ☐
 H= Tutoring ☐
 I= Educational and Academic Planning ☐
 J= Basic Skills ☐
 K= Grant money ☐
 L= Personal Counseling ☐
 M= Progress Monitoring ☐
 N= Summer Readiness ☐
 O= Emergency Loans ☐
 P= Cultural Events ☐
 Q= Child Care ☐
 R= Mentor program ☐
 S= Book Service ☐
 T= Other, specify _____ ☐

3. Check how many times you have used this one most important EOP&S service (from #2 question on page 1).

1. = ☐ 2. = ☐ 3. = ☐ 4. = ☐ 5. = ☐ 6. = ☐
 None (1 to 3) (3 to 6) (6 to 9) (9 to 12) (12 or more)

4. Select one EOP&S activity or support services you feel has kept you enrolled in college.

- A= EOP&S Orientation ☐
- B= Transfer services ☐
- C= Club Activities ☐
- D= Priority Registration ☐
- E= Career Guidance ☐
- F= Peer Advising ☐
- G= Academic Counseling ☐
- H= Tutoring ☐
- I= Educational and Academic Planning ☐
- J= Basic Skills ☐
- K= Grant money ☐
- L= Personal Counseling ☐
- M= Progress Monitoring ☐
- N= Summer Readiness ☐
- O= Emergency Loans ☐
- P= Cultural Events ☐
- Q= Child Care ☐
- R= Mentor program ☐
- S= Book Service ☐
- T= Other, specify _____ ☐

5. Select one EOP&S support services you consider the least helpful to you in college.

- A= EOP&S Orientation ☐
- B= Transfer services ☐
- C= Club Activities ☐
- D= Priority Registration ☐
- E= Career Guidance ☐
- F= Peer Advising ☐
- G= Academic Counseling ☐
- H= Tutoring ☐
- I= Educational and Academic Planning ☐
- J= Basic Skills ☐
- K= Grant money ☐
- L= Personal Counseling ☐
- M= Progress Monitoring ☐
- N= Summer Readiness ☐
- O= Emergency Loans ☐
- P= Cultural Events ☐
- Q= Child Care ☐
- R= Mentor program ☐
- S= Book Service ☐
- T= Other, specify _____ ☐

6. Indicate the department on campus that made you feel the most welcome. _____.

Examples: Admissions; Financial Aids; P.E.; Counseling; Transfer Center; EOP&S; Ethnic Studies; Student Activities.

7. Indicate the department on campus you have the best personal connection with. _____.

Examples: Admissions; Financial Aid; P.E.; Counseling; Transfer Center; EOP&S; Ethnic Studies; Student Activities.

8. Select the type of college class or course that provided the most help for you to be successful in college. Select only one.

1. English ☐
2. Math ☐
3. Science ☐
4. College Success ☐
5. Study Skills ☐
6. Computer ☐
7. Art ☐
8. PE ☐
9. Social Science ☐
10. Humanities ☐
11. Theatre Arts ☐
12. History ☐
13. Psychology ☐
14. Sociology ☐
15. Language ☐
16. Speech ☐
17. Ethnic Studies ☐
18. Personal Enrichment ☐
19. Other, specify _____ ☐
20. None ☐

9. Select the type of individual who influenced your continued enrollment in college the most. Please select only one.

1. An Individual Instructor ☐
2. An Individual EOP&S staff ☐
3. College counselor ☐
4. Coach ☐
5. Individual Student Services Staff ☐
6. Financial aid staff ☐
7. Club adviser ☐
8. Another Student ☐
9. Mentor ☐
10. EOP&S Counselor ☐
11. EOP&S Peer Advisor ☐
12. Other, specify _____ ☐

10. Please rate how important the EOP&S program is to you. Check one.

1. = ☐ 2. = ☐ 3. = ☐ 4. = ☐ 5. = ☐
 Very Important Important Somewhat Important Not Important Waste of time

11. Please rate the services and/or EOP&S activities listed below according to how you feel these support services helped you. Please mark the appropriate box with a check or X.

Service or Activity	1. Extremely Beneficial	2. Beneficial	3. Somewhat Beneficial	4. Did not Benefit	5. Waste of Time	6. Never Used
A. EOP&S Orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. EOP&S Counseling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. EOP&S Tutoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. EOP&S Financial Aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. EOP&S Grants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. EOP&S Child Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. EOP&S Child Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. EOP&S Matriculation services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. EOP&S Mutual Responsibility Contract for EOP&S	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. EOP&S Peer Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. EOP&S Summer Readiness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. EOP&S Mentoring program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M. EOP&S Cultural Events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N. EOP&S Career Counseling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Please rate the campus services and/or activities listed below according to how you feel these support services helped you. Please mark the appropriate box with a check or X.

Service or Activity	1. Extremely Beneficial	2. Beneficial	3. Somewhat Beneficial	4. Did not Benefit	5. Waste of Time	6. Never Used
A. Orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Financial Counseling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Campus Tutoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Educational Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Financial Aid Grants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Campus Work Study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Campus Child Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Mentoring services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Registration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Early Alert Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Campus Mentoring program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. Campus Workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M. Campus Cultural Events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N. Campus Award Ceremonies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O. Student Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. What aspect or area of the EOP&S program works well? Please write below.

14. What aspect or area of the EOP&S program needs improvement? Please write below.

Jurors for the Survey questionnaire**Figure 1**

1. **Dr. Marvin Alkin**
University of California, Los Angeles
2. **Dr. Charles Bossler**
Pepperdine University
3. **Dr. Chuen Chan**
California Community Colleges Chancellor's Office
Research Division
4. **Dr. K. C. Boatsman**
Educational Consultants and Evaluations
5. **Olivia Mercado**
Educational Consultants and Evaluations

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