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ABSTRACT

This document is the educational Master Plan for El Camino Community College District. The purpose of the plan is to develop a research-based document that will be used as a foundation for decisions regarding instructional programs, support services, staffing and facilities. It is intended to serve as the basic foundation for all other plans of the district. Chapter 1 presents an introduction and overview of the college, the organization of the district, the college service area, and the college mission, values, and guiding principles. Chapter 2 describes the methodology, the planning process, and specific activities that went into developing this plan. Chapter 3 details background research and data collection, which includes a look at the 10 core external environmental trends: changing expectations of the community college, labor market and basic skills, enrollment growth, employability vs. employment security, impact of technology, impact of welfare reform, county and local demographics, occupational growth and employment opportunities, more and different providers of learning, and inequality. Chapter 4 presents a vision for the future. Chapter 5 puts forth the plan of action and presents assessments of present instructional programs, support services, and projections for the future as well as recommended goals and strategies. (VWC)

EL CAMINO COLLEGE

MASTER PLAN

DECEMBER 1998

EL CAMINO COLLEGE
16007 Crenshaw Boulevard
Torrance, CA 90506

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Chapter One
INTRODUCTION

PURPOSE

This document constitutes the Educational Master Plan for El Camino Community College District. It is the product of a comprehensive, college-wide planning process which included participation from faculty, staff, students and administrators. The purpose of the plan is to develop a research based document which will be used as a foundation for decisions regarding instructional programs, support services, staffing and facilities. It is intended to serve as the basic foundation for all other plans of the District. Further, it should be understood that this Educational Master Plan is dynamic. It must be reviewed and updated annually to incorporate plans required to accommodate changes in the college and community environments.

When the planning process began in January of 1997, it became apparent that there were a number of issues and concerns that would have to be addressed, among them:

1) supporting existing successful instructional programs, student services and administrative services,

2) identifying those programs and services requiring modifications in order to better respond to the emerging trends and characteristics of the college service area,

3) keeping pace with, and anticipating the trends and changing needs of, the students and communities served by the College,

4) developing partnerships with business and industry within the service area,

5) developing alternative strategies for delivering instruction to students,

6) developing a plan that would fully incorporate technology into all aspects of the operation of the courses, programs and services of the college,

7) considering the development of planning strategies for additional educational centers in the District,

8) developing a Facilities Plan to support anticipated changes in courses, programs and services of the District for the next decade, and to assure that the plan is flexible enough in physical design to accommodate changes in instructional methodology, technology and delivery systems,

9) emphasizing comprehensive planning and how it should be used as a basis for decision-making,

10) developing a stronger, more accurate facility utilization database to substantiate future facility needs,

11) assuring meaningful involvement in the decision-making process by all areas of the College and the community,

12) up-dating the existing campus plant to provide modern, attractive facilities appropriate for the instructional programs and support services offered.

This Educational Master Plan addresses not only the current campus in Torrance but also the potential of establishing educational centers in other areas of the District. In addition, analyses and recommendations have been made regarding college instructional programs in cooperation with local businesses and industries via partnerships or training programs.

OVERVIEW

1. The College

In 1946, after strong recommendations by a consulting team to establish a two-year college in the Inglewood-South Bay area, the governing boards of the Centinela Valley, Redondo, Inglewood and El Segundo school district received voter approval for the creation of a junior college district. Torrance soon joined the newly chartered group and the El Camino Community College District was officially established as of July 1, 1947.

Located centrally in the South Bay, the El Camino College District encompasses five unified and high school districts, twelve elementary districts and nine cities --- population of almost one million.

The history of the College is told in its buildings which not only show sound pay-as-you-go fiscal policies but which are solid evidence of long-term enrollment growth.

The founders of the College were able to buy the original 80-acres forming the eastern portion of Alondra Park at $1,000 per acre with the money to be spent on athletic facilities rather than paid to the Los Angeles County Board of Supervisors under whose auspices it lay. That land was estimated to be worth $225,000 when the transaction was approved on May 23, 1947.

Early classrooms were surplus World War II barracks which were trucked north from the old Santa Ana Army Air Base in Orange County. The first permanent building for classroom instruction was the Shop which opened in 1949. The Women's Gym, Field House, another shop building and the Social Science building came shortly thereafter. Major construction was the order of business nearly every year during the growth years of the College.

Today, the campus facilities include more than 1,130,000 square feet of buildings and have a current market value in excess of $1.2 billion.

The College began with an initial faculty of 30 members and has grown to include more than 800 full-time and part-time instructors. Nearly 20 percent of the full-time faculty have earned doctoral degrees while more than 85 percent have master's degrees. Other faculty members have distinguished themselves and are qualified to teach by virtue of their excellent credentials in specific areas of expertise.

As the College mushroomed from an enrollment of fewer than 500 in 1946 to nearly 24,000 students in 1998, the curriculum expanded to include not only lower division courses but an honors program and numerous vocational programs. Today, El Camino College students enjoy a broad curriculum featuring nearly 2,500 different classes offered in some 850 different programs. With courses available during a variety of times, students have wide flexibility to meet individual scheduling needs.

2. Organization of the District

The El Camino Community College District is a single college district with one campus --- El Camino College. The College is governed by the five members of the El Camino Community College District Board of Trustees. Each is elected for a four-year term by voters in the five trustee areas which make up the College district. Board meetings are held monthly and are open to the public.

The El Camino Community College District includes the cities of El Segundo, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lennox, Manhattan Beach, Redondo Beach, and Torrance.

Heading the administration is the College's president who also serves as superintendent of the District. The president is assisted directly by three vice presidents of the College. Their areas of responsibility are Academic Affairs, Administrative Services, and Student and Community Advancement.

C. College Service Area

El Camino College has one of the largest service areas of any California community college. A recent review of student enrollment data indicated that students attend the College from more than 300 individual zip codes throughout Southern California. However, the vast majority of enrollment comes from residents within the College District including the cities of El Segundo, Manhattan Beach, Hermosa Beach, Redondo Beach, Torrance, Lawndale, Hawthorne, Lennox, Inglewood and Palos Verdes. In Chapter Two, a detailed analysis is presented of the College's service area.

4. College Mission, Values and Guiding Principles

"The mission of El Camino College is to offer quality comprehensive educational opportunities to its diverse community."

This brief and easily understood mission statement concisely reflects the philosophy of the Board of Trustees, administration, faculty and staff of the College.

Consistent with the mission statement, the College's District Planning Council (DPC) developed a value statement and guiding principles which serve to guide implementation of the processes and functions of the DPC. This statement is as follows:

"Everything El Camino College is or does must be centered on our community, for without our community, we have no students, no faculty or staff, no reason to exist. It is our community that saw the need and valued the reason for the creation of El Camino College. Therefore, it is to our community that we must be responsible and responsive in all matters educational, fiscal, and social.

Our highest value is placed on our students and their educational goals. Interwoven in that value is our recognition that the faculty and staff of El Camino College are the College's stability, its source of strength and its driving force."

With this in mind, Guiding Principles used to direct the efforts of the District Planning Council include the following:

"El Camino College must strive for distinction in everything the College does—in the classroom, in services and in human relations. Respect for ourselves, our students, our fellow employees and our community must be our underlying goal.

Cooperation among our many partners is vital for our success—whether they be other schools and colleges, businesses and industries or individuals.

Access and opportunity must never be compromised. Our classrooms are open to everyone who meets our admission eligibility and our community programs are open to all. This policy is enforced without discrimination and without regard to gender, ethnicity, personal beliefs, abilities and backgrounds."

Chapter Two
METHODOLOGY

PLANNING PROCESS

Developing, refining and implementing a comprehensive Educational Master Plan for El Camino College has been a topic of concern for many years. In each of its last two accreditation visits, the Accrediting Commission has made recommendations for improving long-term institutional planning. Concomitantly, the District Board of Trustees and the President have identified master planning as one of their top priorities. Other significant factors influencing this plan are that the California Community College Chancellor's Office has: 1) established guidelines for developing educational master plans and, 2) defined how the master plan document interfaces with the State funded capital outlay program for facilities. The State now requires an educational master plan be submitted as part of the application process for state-supported, capital construction projects.

In an effort to bring objectivity and professional guidance to the planning process, the District employed the educational planning and development firm of Maas, Rao, Taylor and Associates to assist in the development of the Educational Master Plan. Initial meetings with the consultants led to the development of the master planning process which is outlined in Exhibit I.

Exhibit I
THE PLANNING PROCESS

SPECIFIC PLANNING ACTIVITIES

As reflected in Exhibit I, the District Planning Council and College constituents used this process to address the following tasks:

1) review the history and evolution of the College,

2) conduct internal and external environmental scans to identify current and future (anticipated) needs of the College and the communities it serves,

3) create a vision of the future in the form of an Educational Master Plan focusing on: 1) assessment of current programs and services and, 2) development of future programs and services that may be needed,

4) analyze and project growth and enrollment data to the year 2010,

5) develop a plan to ensure access and provision of educational opportunities for disadvantaged and under-represented groups within the community,

6) develop a Facilities Plan that will both modernize the existing campus facilities and plan for future facilities to meet anticipated needs of the College,

7) develop and enhance a wide range of partnerships with area business and industry,

8) encourage development of a Human Resource Plan anticipating faculty and staff needs for the next decade,

9) develop and implement a Professional Development plan for District faculty and staff members,

10) continue to refine and implement the College Technology Plan including, but not limited to consideration for: 1) providing alternative instructional delivery strategies, 2) providing greater computer access to students, faculty and staff, 3) improving record-keeping and record access, 4) developing a more responsive student information system, 5) improving systems for human resources and, 6) improving business services systems, and

11) establish a Financial Plan, including strategies for the development of alternative income sources.

This master plan addresses the tasks outlined above. It should also be noted that in order to best identify future trends, needs and sensitivities, the planning process builds upon and improves both campus inter-constituent communication, and college and community relationships. The documentation presented herein:

1) provides substantive links between educational program and service needs and uses these concepts as the primary force in the establishment of college facility needs,

2) improves the College's basis of justification with State agencies and the State Legislature in order to acquire a greater share of capital outlay funds available for the improvement of public higher education through the State supported capital outlay process, and

3) enhances and further promotes wide participation in the College's planning processes that will produce specific goals and objectives for the College to pursue toward meeting its stated mission.

Commencing in February 1998, meetings were held with individuals and groups to review current educational programs and support services at the College. Specifically, the planning process was outlined that would be followed to effectively develop a sense for the future direction of the College and the range of issues related to educational and facilities planning. Groups and individuals involved in the process included:

- Board of Trustees
- District Planning Council
- individual faculty members
- faculty and staff gathered at department and division meetings
- numerous college committees
- Academic Senate
- various college administrators, and
- community leaders.

All college units were given the opportunity to present their specific needs, goals and objectives to the District Planning Council by filling out a Unit Planning Guide (UPG). The Unit Planning Guide (designed by the consultants) provided a format for identification of staff, facility and equipment needs projected for 5 and 10 years into the future. By completing the UPG, each instructional and support service unit of the College was able to provide the District Planning Council with information that would facilitate development of broad based perspectives on what the College should do to provide the very best educational programs, services and facilities for the communities the college serves. The extent to which this plan has provided a sense of vision and a guide for multi-year planning for programs, services and facilities is a tribute to, and the result of, the contributions of many individuals and groups.

The planning process began with an examination of both the internal and external environments influencing future development at the College, and an examination of the present and anticipated development of both the instructional and support service areas. From that point, the study progressed to an analysis of the data obtained and the development of a series of conclusions on topics ranging from instructional and support services program development; to instructional delivery; the potential for additional education centers within the communities served; and staffing and financial support necessary to bring these plans to operational reality.

Combined with: a) trends and implications developed by 12 External Environmental Scanning and Forecasting Teams, b) unit planning groups, c) meetings and workshops with various college constituencies, d) reviewing the 10 Themes identified in the 1994 El Camino College Comprehensive

Plan, and with e) input provided from the UPGs, the District Planning Council acquired insights into the present and future operational agenda of each component of the institution.

Again, referring to Exhibit I, the El Camino College Planning Process is inclusive, thorough and efficient. It is through this process that the District believes it best assessed the current state of the College and developed this plan for future educational programs, support services and facilities.

Chapter Three
BACKGROUND RESEARCH AND DATA COLLECTION

INTRODUCTION

One of the key factors in the creation of a master plan is the development of an information base that is descriptive of both the external and internal environment of the College. This information is then used to make projections of population increases/decreases, student participation rates, enrollment patterns, occupational trends, new program needs, and the development or expansion of support service areas. By the same token, this information is used to establish a rationale for the manner of delivery for the instructional programs and support services as well as justifying future capital construction needs and staffing for the College.

The development of the information base is crucial to the planning process. In order to establish such a base of information several sources of data were accessed, including:

1) college enrollment information, past and present,
2) census data,
3) data supplied by regional government agencies,
4) information obtained as the result of consultant interviews with independent demographers,
5) Chamber of Commerce information on local economic development,
6) data supplied by the California Community College Chancellor's Office,
7) information gained through interactions with College faculty and staff,
8) Unit Planning Guide information provided by College faculty and staff; and
9) information contained in the data base of Maas, Rao, Taylor and Associates.

Information collected from the above mentioned sources (plus additional studies developed on an as-needed basis), constituted the external and internal environmental scan for the College. The factors identified as having an influence on the long-range plan of the College were then incorporated into the basic planning assumptions.

DISTRICT PLANNING COUNCIL ACTIVITIES

In November of 1997, the District Planning Council (DPC) was established by the College's president as the District-wide coordinating body for the development of the Educational Master Plan. The first task of the DPC was to develop and promulgate a list of its purposes which include the following:

1) Develop and recommend to the College Council and the president an Educational Master Plan that considers the needs of the institution as a whole;

2) Support, advocate and oversee continuous planning that identifies and responds to the needs of the communities the College serves;

3) Lead efforts for each functional unit of the institution to set specific objectives.

Following development of the statements of purpose, the DPC identified the responsibilities and tasks it would undertake as follows:

1) Review community surveys, internal college assessments and trend statements developed by scanning and forecasting teams, and identify core trends that are anticipated to have the greatest impact on the institution.

2) Develop a set of institutional goals that relate directly to the core trends and submit them to the College Council and the president. These goals will serve as the foundation for the functional units to develop specific measurable objectives to be accomplished during the fiscal year.

3) Develop and disseminate an annual planning calendar which will specify timelines for submission of planning components to the District Planning Council and College Council for review.

4) Oversee and coordinate institutional planning and provide functional units with assistance in establishing specific objectives related to institutional goals. It is expected that each functional unit will submit its objectives to the DPC for review, clarification, and continuity with institutional goals. The objectives will be assessed to assure they are linked to the institutional goals and that they are specific, measurable, and achievable within given timelines.

As a starting point for building the Educational Master Plan, College Scanning and Forecasting Teams identified more than 80 external environmental trends through their investigations. These trends (which were substantiated in a review of the literature and validated through telephone surveys with community leaders) provided the basis for developing lists of potential implications for the College and the communities served by the College. In turn, the trends were sorted, synthesized and edited into 10 External Environmental Trend Statements. The District Planning Council then analyzed and prioritized the Trends on the basis of those believed to have the greatest impact on the College within the next 3 - 5 years.

The DPC does not mean to imply that these trends, their rationale, or implications are definitive. Rather, they should be viewed in the context of the time frame in which they were identified and the people who participated in the identification process. They are external to the college environment and have been ranked to reflect the DPC's best sense of which ones have the potential for the greatest impact on the College. The following pages contain, in prioritized order, the 10 External Environmental Trends of the District Planning Council:

10 CORE EXTERNAL ENVIRONMENTAL TRENDS

1. There is more emphasis on colleges becoming learning institutions rather than teaching institutions.

2. The current and future labor force will require mastery and application of basic skills, learning skills, advanced technical skills, communication skills, and skills working with others.
3. Enrollment increases in California community colleges are likely to continue in the future.

4. Employability will become a more realistic goal in the future rather than employment security.

5. The demand for distance learning programs will dramatically increase and will have profound effects on traditional higher education institutions.

6. Welfare reform will continue to have important consequences for California, local counties and community colleges.

7. Population increases in Los Angeles County will continue, especially among those ages 35-54 and those from Asian and Hispanic backgrounds.

8. Los Angeles County and South Bay occupational and sector growth will be the largest in motion pictures and entertainment, international trade, health care (including biomedical and biotechnology) services, information technologies, equipment manufacturing, pharmaceuticals, and entrepreneurial areas.

9. More responsibility for lifelong learning will shift away from colleges and universities to non-traditional and different businesses and organizations.

10. There is growing inequality among the affluent, the poor and the working-poor.

TREND 1: CHANGING EXPECTATIONS OF THE COMMUNITY COLLEGE

There is more emphasis on colleges becoming learning institutions rather than teaching institutions.

RATIONALE

There is support for the view that changes in the educational system---reviewing credit, place, efficiency, time, etc. may have spawned redesigning and re-engineering our system of higher education; but by doing so, ignored the essential importance of placing learning first, before teaching. If the purpose of education is to improve and expand student learning, this requires flexibility for learners; it also requires student assessment and learning outcomes centering around what does a student know? And what can a student do? This shift views faculty as designers/managers/coaches, rather than the sole provider and authority of knowledge. Faculty are viewed as implementing new learning opportunities for students in a system marked by convenience for the learner more than convenience and requirements of faculty. An emphasis on placing learning first makes faculty responsible for learning outcomes. Thus providers of learning---which does not automatically include teachers or institutions--will prosper in the future.(O'Banion, 4/19/97; Workplace, Winter, 1996).

IMPLICATIONS FOR THE COMMUNITY

- Public support--political, financial, image, etc. may follow organizations that put learning first before organizational structures, processes and employees
- If learning and convenience become central, colleges and universities unable to change will find themselves being by-passed by learners

- Certifying learning (in competencies, levels, or degrees of achievement) may provide a substantial challenge to continued public support of colleges which express success according to standards of credits earned

IMPLICATIONS FOR EL CAMINO COLLEGE

- Emphasis on the learner and learner outcomes puts greater stress on faculty
- Since learning also occurs outside the classroom this also places responsibility for learning on non-faculty.
- Potential role changes for College employees will be met with resistance
- Students resistance may be strong because placing learning first means students must take responsibility for their learning

TREND 2: LABOR MARKET AND BASIC SKILLS

The current and future labor force will require mastery and application of basic skills, learning skills, advanced technical skills, communications skills, and skills working with others.

RATIONALE

The mismatch between low skill levels of job seekers and growing demand for highly trained employees has been thoroughly documented. The mismatch will be particularly acute in Southern California, due to its large number of poorly educated immigrants. (Silverstein, 4/26/97; Joyce and Votek, 5/96; DeBare, 4/27/97; Chancellor's Office, CCC, 8/96; CA. Labor Market Information Division, 12/95).

IMPLICATIONS FOR THE COMMUNITY

- Workers trained in the areas identified by employers will have greater potential for employment
- People will want training from institutions that provide specific competencies that make them employable
- Current workers will need skills up-grading to keep and advance in jobs
- Without responsive and well developed training programs, the local economy could lose employment opportunities
- More job and career changes
- Increased demand for bilingual employees
- Labor shortages, competition for skilled employees and numbers of poorly skilled workers that are unemployed and/or unemployable will co-exist in the labor force

IMPLICATIONS FOR EL CAMINO COLLEGE

- Change curriculum to incorporate critical and basic skills (e.g. US Department of Labor identified skills and levels of performance) into academic and vocational education courses
- Change some credit programs to follow the lead of contract education--meet customer needs

- Emphasize the basics and integrate them into courses or assure that all students have basic competencies

- Investigate outcome-based evaluation whereby students who demonstrate mastery of specific competencies receive certification to present to prospective employers
- More basic skills classes
- More instruction in the work ethic
- More career counseling
- Greater technology upgrades and training
- Increase ECC emphasis on helping students plan
- Help students with financial planning as an integral part of student counseling
- Resist the pressure to lower standards, reward teaching excellence more
- Counselors role to include advising students to combine language courses with other business skills
- Increase the number of programs such as ESL, vocational-technical and foreign trade
- Retraining programs for older and displaced workers
- Provide more short-term intensive training programs for career changing adults
- Provide evening and weekend schedules for those who work and want to upgrade skills
- Work more closely with employers to project changes within their own workforce

TREND 3: ENROLLMENT GROWTH

Enrollment increases in California community Colleges are likely to continue in the future.

RATIONALE

For the third successive year, enrollments are up in state public colleges, with a 4.3% statewide increase in community colleges. Continuation of this increase is a function of the state of the economy and is subject to the growing numbers of children of baby boomers entering higher education. Community colleges, often enrolling first-generation college students and immigrants, are likely to see future increases. As one of a number of western, southern and southwestern growth states, California is expected to have 54% more high school graduates during the next decade.

South Bay high schools report lower dropout rates for the period 1992 through 1995. Most El Camino College feeder high schools posted declines in the percentage of students who continued their education in a California public college. (Slater, 11/4/97; Montgomery/La Russa, 4/23/97; Press-Telegram, 11/11/97).

IMPLICATIONS FOR THE COMMUNITY

- Local businesses that serve students will see increases
- Increases in demand for housing may increase rental rates
- Increased competition for admission to four-year schools
- Insufficient funds for community colleges to respond may trigger battles with competitors and politicians for allocation and distribution of public funds

IMPLICATIONS FOR EL CAMINO COLLEGE

- Decline in college attendance among South Bay high school graduates may mean fewer incoming students
- Fewer incoming students may require more efforts by the College in out-reach, marketing and enrollment development
- Increase connections with area high schools and academies
- If future enrollment increases occur, it may mean greater demand for parking, registration, counseling, advising, faculty loads/distribution and composition, and off-site options

TREND 4: EMPLOYABILITY vs EMPLOYMENT
Employability will become a more realistic goal in the future rather than employment security.

RATIONALE

As a result of massive economic and technological changes, the notion of lifetime and full time employment is increasingly questioned, less common, and becoming more obsolete. Continued downsizing (in banking and finance, telecommunications, computers, defense industries, retail stores, etc.) and mergers and acquisitions, in an international market illustrate changes that suggest that while current and future work is plentiful, it can be accomplished without the same number and distribution of jobs. Support for a three-tiered labor force (a shrinking core of full-time/career jobs, a growing number of subcontractors , and a rising numbers of part-time and/or contingency workers, that are at best temporary in status) is indicative of this trend. The demands for highly skilled workers will never reach the levels needed by the old economy and millions of college grads will have to accept substandard jobs for which they will be overqualified; the paradox is preparing people for a world-class work force with a decline in world-class job opportunities. Employability security recognizes that guaranteed or even life-time employment will be less likely in the future, and that community colleges should provide those they serve with an education and training that will make them more or less employable more or less most of their work lives.(Handy, 1990; Boutwell, 10/97; Kegalas, 2/94; NY Business Wire, 4/23/97)

IMPLICATIONS FOR THE COMMUNITY

- Less income and spending
- More imbalance in the labor force contributes to greater inequality in society
- More questions and attacks on the economic value of higher education
- Less available tax money
- More resistance to public spending
- Economic frustration leads to more displacement and outlets for hostility in families, and against minorities, wealthy and privileged, and traditional economic and political institutions
- Need to expand job opportunities
- Need for counseling and related support services
- Highly educated people may need retraining in marketable job skills

IMPLICATIONS FOR EL CAMINO COLLEGE

- Fewer students pursuing four-year educational programs
- More students with significant student debt and more difficulty in paying off debt in the future
- Need to emphasize that education provides more than a job or place in business and industry

- Identify current and future distribution of three-tier components of the labor force and program for them as needed
- Employability more likely to be outcome for those who pursue lifelong learning

TREND 5: IMPACT OF TECHNOLOGY

The demand for distance learning programs will dramatically increase and will have profound effects on traditional higher education institutions.

RATIONALE

Distance learning, the application of electronic means to education in all areas, has enlarged opportunities for more learning by more people. Students are attracted to distance learning for numerous reasons, especially the fact that they are time, pace, and place-free. Rapid advances in telecommunications have made possible the development of learning modules including video, e-mail, and the world wide web. Each of these are or can be components of the learning process or as the basis for instruction. Telecommunications applications have largely eliminated walls and boundaries. Current examples include the rapidly expanding University of Phoenix and establishment of a "virtual university" --the Western Governors University. Colleges which do not recognize and respond to the new educational technologies, will find themselves struggling to survive or prosper. (Robinson, 11/97; Bingham/Davis/Moore, 5/21/97; Oblinger, Winter, 1997; Brown and Duguid, 7-8/96; Hayes, 9/97; LaRouche, 1994; Tucker, Star-Tribune, 1996; Educational Technology, 11/96.)

IMPLICATIONS FOR THE COMMUNITY

- Concern over unequal possession and use of telecommunications by students depending on the wealth of their families and communities (equity and access)
- Changes in social interaction and socialization brought on by increasing reliance on telecommunications
- Potential for more work and learning done at home and away from office, plant, school
- Greater emphasis on learning how to learn
- Learners will take more responsibility for learning

IMPLICATIONS FOR EL CAMINO COLLEGE

- Research on impacts of telecommunications on student learning
- More planning, training, involvement to prepare for and adjust to future changes
- Continuous up-dating and training on use of telecommunications in the teaching-learning process
- Need to address concerns about telecommunications negatively impacting faculty and staff
- Anticipating and responding to a changing role for faculty (e.g. away from authority and repository of knowledge, to faculty as coaches and supporters)
- Policy issues centering around future direction of resources --- building "buildings" or building "telecommunications capacity and networks" or both
- Planning for and responding to needs for new and/or replacement telecommunications technology that is expensive
- Developing adequate standards for student achievement and professional workload measures
- Year-round, 24 (hours) x 7 (days) learning

- Distance learning may be over-emphasized; students learn by personally interacting with teachers and students, especially beyond mastery of information and skills as levels
- Tuition based on residence, credit-hour, daily attendance, etc. will need to be reviewed in light of their meaning and application in distance learning

TREND 6: IMPACT OF WELFARE REFORM

Welfare reform will continue to have important consequences for California, local counties, and community colleges.

RATIONALE

In 1996 new welfare legislation gave states broad new powers to devise their own public assistance programs. The major aspect of the new legislation in California includes requiring current recipients to find work within two years, and new recipients are restricted to 18 months on aid. Counties have the option of extending the deadlines for six months. Recipients can spend no more than five years of their lives on aid. Students can remain in school while on public aid only if they are making satisfactory progress in undergraduate or certificate programs leading to self-supporting employment. In California, more than 140,000 community college students (10% of the population) received public aid in the 1995-96 school year. Disagreements and conflicts are occurring as college representatives prefer a broad definition of goals associated with obtaining self-supporting employment, and welfare officials are emphasizing moving recipients quickly into work. (Rivera, 11/3/97; Willis, 5/13/97; Long Beach Press Telegram, 5/5/97; Community College League of California, 4/97; Harrison, 1/97; The Economist, 3/4/97.)

IMPLICATIONS FOR THE COMMUNITY

- Welfare reform could create a flood of new people seeking education and training
- Increased need for child care, transportation, counseling, basic skills and ESL instruction
- Increased opportunities to partner with colleges, government and employers
- Welfare reform will increase the supply of cheap labor, which may limit company investment in labor-saving technology

IMPLICATIONS FOR EL CAMINO COLLEGE

- Increase in enrollment
- More personnel and space in the College day-care center
- Develop customized training programs for welfare recipients at El Camino College
- Increased need for basic skills instruction, counseling and advising, and job development and placement
- Greater emphasis on convenient time and place to provide welfare students programs and services
- Access federal and state aid funds to provide programs and services for welfare students

TREND 7: COUNTY AND LOCAL DEMOGRAPHICS

Population increases in Los Angeles County will continue especially among those ages 35-54 and those from Asian and Hispanic backgrounds.

RATIONALE

Since the 1990, census Los Angeles County continues to demonstrate a growing population, with an increase of approximately 1.1 million new residents from the period 1990 through 2000. Increases are expected through at least 2010. Population cohorts expected to increase include those 35-54, women, and single-parent families. Newly arriving immigrants, particularly those from Hispanic and Asian populations, will show a significant increase in the future.

Similar increases are expected for South Bay cities, with an increase of approximately 58,000 residents for the period from 1990-2000, and another 60,000 residents through 2010. Within the College's service area, increases in those ages 35-54, and among Hispanic and Asian populations are likely. (Southern California Association of Governments, 5/95; US Census Bureau, Los Angeles County, 1994 and 1996.)

IMPLICATIONS FOR THE COMMUNITY

- Any notion of an "average" county and community resident is inherently suspect
- There is a greater possibility of cultural differences and conflicts, especially in areas such as language, politics and power, employment, etc.
- To the extent that Hispanic and Asian populations are younger and may be disproportionately poor, the County will find its resources limited and under siege
- Greater chances for "balkanization"
- Greater need for community-building

IMPLICATIONS FOR EL CAMINO COLLEGE

- Faculty, staff and administrators will need to examine if and how learning can become more successful among immigrants and those from Asian and Hispanic backgrounds
- The College will need to plan for rising numbers of students
- The College will enroll rising numbers of disabled students
- The College will need to strengthen its counseling, assessment and placement programs
- The College can expect increases in students requiring remedial and developmental work
- Current and future students will require and expect convenience and quality in their programs and services

TREND 8: OCCUPATIONAL GROWTH AND EMPLOYMENT OPPORTUNITIES

Los Angeles County and South Bay occupational and sector growth will be the largest in motion pictures and entertainment, international trade, health care (including biomedical and biotechnology) services, information technologies, equipment manufacturing, pharmaceuticals, and entrepreneurial areas.

RATIONALE

The US Bureau of Labor projections for 1996-2006 indicate 15 out of the 20 fastest growing occupations are associated with health services or computer technology, and self-employment opportunities will be the greatest in occupations requiring creativity, artistic ability, or design skills. These predictions are especially applicable to Southern California/Los Angeles with its concentration of entertainment and information technologies. Future labor force growth is reflected in the most recent Los Angeles Times poll (2/3/98) which reported that residents of Southern California feel good about the direction in which the state is heading, the robustness of the state's economy and the future economy. The poll found 57% of Southern Californians feeling this way, the most optimism since December, 1991. (BLS, Occupational Outlook Quarterly, 1997-98; Gibson, 1/97; Bradshaw speech, 5/22/97; CA. Employment Development Department, 4/7/97; Demographic Data for LA County, 5/19/97; LA Times, 5/6/97; Torres, 3/8/97; CA. Economic Indicators, 1-2/97; Dickerson, 10/21/97; Losyk, 3-4/97; Skratt, 10/28/97; Daily Breeze, 11/5/97; Lister, 4/28/97.)

IMPLICATIONS FOR THE COMMUNITY

- Community centers providing child and related care for those involved in home-based businesses may increase
- More people interested in learning computer skills
- More employment for South Bay residents
- More people moving into the South Bay
- More business for South Bay suppliers
- The labor force will need lifelong learning
- More activities and transactions in financial and commercial ventures
- Every new job created in Los Angeles County brings $5,000 in revenue to the county and municipalities
- High demand for quality office space in the County
- Growth potential of sectors and occupations in Los Angeles County will be linked to land use, transportation issues, and the location of a skilled labor force
- New start-up companies may invest in the community and education
- The Los Angeles area will provide more opportunities for entrepreneurs, thereby encouraging business and job growth
- Entrepreneurial efforts and start-up companies may give people a sense of personal empowerment

IMPLICATIONS FOR EL CAMINO COLLEGE

- Increased pressure from staff to telecommute
- Increased demand for courses on establishing and operating small businesses
- Potential increase in number of students taking classes, especially business related, via distance education and through a Weekend College
- Encourage students to have more than one major or area of expertise for more career flexibility
- Improve and expand College's computer-related programs and services
- Establish teacher training programs for people interested in the field
- Cultivate relationships with employers to provide staff assessment needs
- College may need to become more pro-active in economic and educational partnerships in its community
- Internationalize the College's curriculum

- Increase College involvement in environmental issues related to changing land use
- Increase College effort to monitor trends for planning for the future
- Continually assess curriculum to meet the demands of high-tech employment requirements
- Increase funding for necessary instructional technology
- Create additional vocational degrees/certificates in entrepreneurship
- Capitalize on international trade opportunities
- The College's Fine Arts Program will be impacted by entertainment and entrepreneurs

TREND 9: MORE AND DIFFERENT PROVIDERS OF LEARNING

More responsibility for lifelong learning will shift away from colleges and universities to non-traditional and different businesses and organizations.

RATIONALE

In the past few years observers and authors (e.g. Davis and Botkin, *The Monster Under the Bed)* have noted that as lifelong learning and the marketplace for it has expanded, more and more of this expansion is being better met by businesses than by colleges and universities. Businesses and organizations have invested large amounts of money in educational systems --- software companies such as Micrsosoft and Novell, which certify their trainers and network personnel are examples. This trend is pronounced in regard to public (K-12) education with the emergence and growth of private and parochial schools, charter schools, vouchers, contract services, and home schooling. The responsibility for future education to enable a country to be competitive will rest with business not colleges and universities. This shift finds support among those who believe that traditional higher education institutions show little evidence or signs of adapting to changes. Unless colleges and universities adjust the ways (e.g. they are organized--with reliance on seat, clock, and schedule time), assess students and issue meaningful credentials, they will be displaced by private competitors. (Graff; Froeschle/Anderberg; Hatch/Lewis/Thomas.)

IMPLICATIONS FOR COMMUNITY

- Corporations will have profound effects on colleges/universities including what and how education is provided
- Competition by other providers is the "monster" and strategies to respond are needed
- May be greater reduction in resources for public education at all levels
- May be less job security for public school and higher education employees

IMPLICATIONS FOR EL CAMINO COLLEGE

- Need for a reasonable balance between career-centered and broad based general education
- Will need to address the challenges of tenure, academic structures, processes, clock hours, seat times, etc.
- Educate the public to recognize that the College provides value and is worthy of continuing funding
- If parents and students become dissatisfied with public higher education, and can afford private education, they will withdraw their support for public education

TREND 10: INEQUALITY

There is growing inequality among the affluent, the poor and the working-poor.

RATIONALE

Sources including the Congressional Budget Office, social scientists, economists, and research organizations have documented growing inequality in the US in a host of indicators including quality and quantity of education, access to and use of technology, health care, life expectancy, poverty figures, violence, unemployment rates, etc. The poverty rate is increasing in LA County. Inequality and wage stagnation are not diminishing. (LA Times, 11/15/97; NY Times, 3/30/97; LA Times, 11/9/97.)

IMPLICATIONS FOR THE COMMUNITY

- Increases in gang and gun violence
- Increases in child mortality and domestic violence
- Increases in substance abuse
- Increases in poorly prepared students
- Increased demand for health and social services
- More concern for personal and community security
- More hopelessness among the disadvantaged

IMPLICATIONS FOR EL CAMINO COLLEGE

- More demand for counseling and advising services
- More concern for campus safety
- Greater intervention by counseling, health and child care departments
- More challenges to faculty in their field and teaching style
- Higher stress levels among students and faculty

ADDITIONAL EXTERNAL ENVIRONMENTAL SCAN INFORMATION

In addition to the work of the Environmental Scanning and Forecasting Teams, relevant data from reliable sources at the following levels was analyzed.

- State of California
- Southern California
- Los Angeles County
- South Bay

In the sections which follow, the significant trends and observations for each level of study are reported. The detailed information for each of the areas is included in the appendices to the Educational Master Plan.

A. The State of California

A recent study was completed during the first half of 1998 by the Center for Continuing Study of the California Economy. This report, *"The Outlook for the California Economy--1998"*, examined several key factors in the growth pattern of the California economy that are significant in understanding the overall direction for the area and the educational programs that will be required to fuel this economy.

This information is summarized as follows:

Employment:

1) Employment levels by mid-year 1998 were up 300,000 over the previous year and up 4.5% compared with a nation-wide 2.2%. Projections indicate this will continue throughout 1998.

2) Personal income was up 6.7% in 1996; 6% in 1997, and 5.1% in the first half of 1998, while inflation rose 2% in 1996; 2% in 1997, and 3% in the first half of 1998.

3) Manufacturing jobs increased by 160,000 since 1994 with the largest gains in apparel, entertainment/tourism and high technology.

4) California's economic increase is led by four areas: a) high tech manufacturing, b) foreign trade, c) entertainment and tourism and d) professional services (management, software, multimedia and engineering)

5) Unemployment dropped from 10% in 1992 to 5.5% in June 1998. California's unemployment rate is now just slightly higher than the national average and is expected to equal the national average before the end of 1999.

6) There is a slight growth (1-2%) annually in the statewide population and growth in household income is predicted, based on new job opportunities.

The outlook for the remainder of 1998 through 2000 is for continued growth of the California economy. The *"UCLA Business Forecast"* (July, 1997 ed.) predicts a growth of 3.7% in jobs, 9.9% in personal income, and 7.8% in taxable sales for the remainder of 1998. The State Department of Finance similarly predicts increases in these three categories of 3% in jobs, 6.8% in income and 6.8% in taxable sales. The outlook for 1998-00 is for continued growth, following the patterns established in the previous year.

2. Southern California

The Southern California Association of Governments (SCAG) regional forecast foresees job growth of more than 2.6 million and population gains of almost 6 million between 1990 and 2010. Total jobs in SCAG's six counties are projected to increase from 7.1 million in 1990 to 9.7 million in 2010 --- a gain of 37%. Despite aerospace and defense industry declines in employment, this is a substantial increase in total jobs. Yet it is well below the region's historic performance --- in the 18 years from 1972 to 1990 employment in the SCAG region jumped by more than 66%.

Regional Economic Update:

The Los Angeles area added more than 100,000 jobs per year in 1996, 1997 and 1998. Some specific areas of economic growth are projected in the following industries.

Entertainment: Both the domestic and international film industry will continue to grow.

International Trade: International trade will continue to grow even though there is uncertainty within the Japanese market. China will increase its influence as a major force on the economy.

Tourism: This industry will continue to flourish in Southern California as demonstrated by the opening of new sites such as the Getty Museum, the Raleigh Studios in Manhattan Beach and the renovation of Disneyland.

Apparel Design and Manufacturing: Continued steady growth is projected.

Professional Management Services: Engineering and architecture are continuing to grow in accordance with the renewed interest in residential housing and office/retail development.

Construction and Real Estate: Both residential and commercial sectors will continue to grow.

Traditional Aerospace: This industry has leveled off and there does not appear to be any significant changes in employment in the near future.

Financial Services: More dramatic mergers in the banking and the savings and loan industries will further consolidate this sector and negatively impact smaller financial institutions.

TABLE 1
SCAG REGION POPULATION AND JOBS

Current Forecast

Note: Numbers in Thousands of jobs	Year 1990	Year 2010	Percent Change	Forecast for 2010
Population	14,637	20,516	40.2%	18,256
Employment	7,076	9,691	37.0%	8,954

(Source: Southern California Association of Governments Regional Forecast, September 1997)

Projected employment growth will support a population of approximately 20.5 million residents by 2010. The region's population will grow by 5.9 million (40.2%). The current population forecast is almost 2.3 million higher in 2010 than that forecasted in the 1989 Growth Management Plan (GMP).

Job growth in the region's economic base is shown in the Table 2. Southern California is expected to gain from strong growth in the professional services and tourism and entertainment sectors --- each with projected job growth of near 70%. Continued brisk expansion of foreign trade will support these sectors as well as the region's transportation and wholesale trade firms.

TABLE 2
SCAG REGION ECONOMIC BASE FORECAST

Note: Numbers in Thousands of Jobs	Year 1992	Year 2010	Percent Growth 1992-2010
Professional Services	798.8	1,342.0	68.0%
Diversified Manufacturing	721.8	876.0	21.4%
Transportation & Wholesale Trade	526.5	769.7	46.2%
Tourism & Entertainment	248.3	414.6	67.0%
Defense Related	236.2	250.3	6.0%
High-Tech Manufacturing	111.9	128.0	14.4%
Resource Based	116.8	126.7	8.5%
Total Base Jobs	**2,760.3**	**3,907.3**	**41.6%**

(Source: Southern California Association of Governments Regional Forecast, September 1997)

Table 3 illustrates SCAG's employment forecast organized by major industry group. This classification facilitates comparisons with the 1989 GMP forecast. With three exceptions, the new 2010 totals are all higher than in the 1989 GMP forecast. Mining and farm jobs are projected to decline in the region both vis-à-vis 1990 and relative to the old forecast. More capital intensive methods of production and housing impose pressures on land use. Land value is the major factor behind employment losses in these two sectors.

The big picture on manufacturing is shown in Table 3. Combining all its parts, manufacturing employment overall shows virtual stagnation over the forecast period. In stark contrast, the 1989 GMP projected a total of 1.5 million factory jobs in 2010, almost 275,000 more than the current forecast and an increase of 23 percent from the actual manufacturing employment level in 1990. The difference results from the combination of two forces: 1) slower growth in U.S. manufacturing jobs and 2) permanent loss of employment from this region due to defense spending cuts, business restructuring, and business relocations.

TABLE 3
EMPLOYMENT FORECAST COMPARISONS
Current vs 1989 Gross Management Plan Forecast

Note: Numbers in Thousands of Jobs, Except as Noted	**1989 GMP**	**Year 2010 Forecast**		**1990-2010 Projected Growth**
		1990 Actual	**1998**	**Forecast (Percent)**
Agriculture	66	59	51	-13.6%
Mining	21	14	12	-14.3%
Construction	300	299	370	23.7%
Manufacturing	1,514	1,230	1,239	0.7%
Transportation and Public Utilities	408	305	422	38.4%
Trade (Wholesale and Retail)	1,928	1,502	2,125	41.5%
Finance, Insurance and Real Estate	550	432	595	37.7%
Services	2,612	1,775	3,011	69.6%
Government	880	860	1,075	25.0%
Self-Employed	610	554	717	29.4%
Sub Total	**8,889**	**7,030**	**9,617**	**38.2% (Avg)**

(Source: Southern California Association of Governments Regional Forecast, September 1997)

The regional employment forecasts were presented by county, subregion, city and smaller units through a bottom-up, interactive process by which subregion organizations played a crucial role in providing data. Table 4 presents the employment distribution by subregion and by county for the years 1990, 2000, and 2010.

TABLE 4
EMPLOYMENT FORECAST BY SUBREGION AND COUNTY

SUBREGION	Year 1990	Year 2000	Year 2010	% Change (1990-2000)	% Change (2000-2010)
North Los Angeles	77,000	141,000	199,000	83.1%	41.1%
L.A. City	1,965,000	2,072,000	2,213,000	5.4%	6.8%
San Gabriel Valley	583,000	674,000	781,000	15.6%	15.9%
West Side Summit	231,000	247,000	261,000	609%	5.7%
South Bay Cities	***443,000***	***509,000***	***596,000***	***14.9%***	***17.1%***
South East L.A.	923,000	1,004,000	1,116,000	8.8%	11.2%
COUNTY	**1990**	**2000**	**2010**	**% Change (1990-2000)**	**% Change (2000-2010)**
Los Angeles County	4,610,000	5,084,000	5,670,000	10.0%	12.0%

(Source: Southern California Association of Governments Regional Forecast, September 1997)

3. South Bay Area

In many ways, the South Bay area is a reflection of the data previously presented about Southern California. This is to be expected because of the impact the South Bay has on the overall Southern California economy. The Community Development Commission of Los Angeles County recently completed a study of strategies required of the cities in the South Bay area. This study summarizes the current status of employment in the area and proposes a plan of action for future economic growth of the area.

The College, in assessing the training needs of employers in the immediate area, takes note of the following excerpts (pp. 26-35) from the, "South Bay Economic Adjustment Strategy" (The Community Development Commission, April 1998):

Purpose

The South Bay Economic Adjustment Strategy has been prepared to help elected officials, public sector staff; business leaders, and citizens take coordinated, effective action to recover jobs lost because of defense cutbacks. The strategy has been prepared under a grant from the Office of Economic Adjustment in the Department of Defense that was administered by Los Angeles County's Community Development Commission. The South Bay Association of Chambers of Commerce and South Bay Cities Council of Governments have participated continuously in this project, providing information, access to knowledgeable individuals in business and government, and critiques of project data and strategy recommendations.

The most salient fact about the South Bay economy is the importance of high technology manufacturing and services. The area's high technology sector is a tapestry of industries linked to space systems, aeronautical services, and aviation; its output includes research and development services as well as production of electronic and aerospace hardware and

software. Despite ongoing decline in defense procurement the South Bay remains the heart of Los Angeles County's aerospace, defense and high technology industrial complex and is a national center of aerospace, electronics, and communications.

This report provides a body of analysis and strategy recommendations for supporting existing and emerging industries with innovative partnerships between the private and public sectors and carefully targeted public sector investments. The South Bay economy has been seriously damaged by defense cutbacks and in the absence of effective economic development strategies the risk is real that a critical mass of high technology talent will exit the region and opportunities for growth and diversity in the economy will be lost.

Communities Included in the Analysis

The geographic scope of the South Bay, as defined for this analysis, includes the following cities and communities: Carson, El Segundo, Gardena, Harbor Gateway, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lennox, Lomita, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills Estates, Rolling Hills, San Pedro, Torrance, West Carson, Westchester, Playa del Rey, and Wilmington/Harbor City.

Defense Industry Findings

The national market for major aerospace products has declined sharply during the last decade. Only space and civil aircraft sales have not fallen substantially since 1987. The South Bay has been hit extraordinarily hard by defense budget cutbacks resulting from the end of the Cold War; however, the fixture forecast for the South Bay is guardedly optimistic.

Department of Defense (DOD) policies have contributed to disproportionate losses of defense jobs in the Los Angeles region. DOD encouraged consolidation of the defense industrial base by allowing consolidation costs to be charged to defense contracts. This provided a strong incentive for firms to consolidate and position themselves to dominate their markets. As these firms consolidated they often did so around newer production facilities in other regions created as a result of DOD's dual-source procurement policy.

The Space and Missile Systems Center (SMSC) located at the Los Angeles Air Force Base in El Segundo has a growing budget, spending over $5 billion a year to plan and procure space systems for the Air Force. The presence of SMSC is clearly an asset for South Bay defense-linked industries, although most prime contract funds go to firms headquartered in other regions. From 1993 through 1997 SMSC and its technical arm, the Aerospace Corporation, lost more than 2,000 jobs. If declining government oversight of defense procurement causes continuing attrition at SMSC, the loss of a critical mass of employees might make it feasible to move SMSC's work out of the Los Angeles region.

The South Bay faces strong competition from other regions for production of satellites, but the market niche it has retained supports a highly skilled labor force that is paid high salaries. Growth at TRW and Hughes has offset losses at SMSC and the Aerospace Corporation.

From 1993 through 1997, the combined employment of these four anchor organizations in the South Bay space sector grew by over 3,000 workers.

Pressures in the defense market are driving prime contractors toward fewer suppliers, dramatically reducing the number of subcontractors, although the overall percentage of revenues subcontracted has remained roughly constant. The greatest opportunities for increasing local subcontracts are at the third tier level, that is at the level of suppliers to direct subcontractors.

The acquisitions and mergers within the defense industry continue to have a negative impact on the employment base in the South Bay area. Raytheon continues on course to acquire the Hughes defense segment but one item of good news has been the decision by Lockheed not to merge with Northrop. The decision not to merge is viewed by some as an indication that mergers may be at an end.

The South Bay aerospace industry has an employment multiplier of 2.65. For every worker in the aerospace sector, another 1.65 workers are employed elsewhere in the South Bay. The business taxes generated directly by the aerospace industry in the South Bay declined from $109.0 million in 1987 to $56.8 million in 1996.

Decline of production and employment in the aerospace industry has resulted in the loss of billions of dollars of payroll from the South Bay economy. Between 1987 and 1996, the total payroll of the South Bay aerospace industry declined from $4.65 billion to $2.09 billion (constant 1996 dollars). The payroll generated in firms supplying inputs to the aerospace industry, as well as the payroll generated in firms in which jobs were supported by the expenditures of aerospace workers, declined from a total of $4.90 billion in 1987 to $2.20 billion in 1996. Thus the total payroll generated directly and indirectly by aerospace production in the South Bay declined from $9.55 billion to $4.30 billion, a loss of $5.25 billion annually.

Technology Commercialization

The aerospace industry accounts for more than a quarter of all of the nation's research and development expenditures, and a significant share of these R&D investments have been made in the South Bay. There is a clear public interest in transferring useable intellectual property produced by defense research to commercial applications. Many South Bay high technology firms have noteworthy opportunities to commercialize technologies they have developed, at the same time there are significant organizational and financial barriers that may prevent commercialization. The public sector needs to provide intelligent, attentive support for commercialization projects.

The South Bay has significant opportunities for large-scale technology commercialization through space-based communication and information systems. This can and is occurring through purely commercial projects such as Hughes DirecTV as well as through use of defense-related space systems for commercial purposes. Areas in which there is overlap between defense-linked space and communications projects and commercial opportunities

include global positioning and communications satellites, data and voice communications systems, and launch systems, including the expendable evolving launch vehicle and the space plane.

A major initiative by Allied Signal in Torrance to manufacture turbo-generators for ultra-low-emission, low-cost generation of electrical power at businesses, factories, and remote locations is now underway. Strengths of this project include knowledge of the market they are entering, a carefully developed product that offers advantages in cost savings and environmental benefits, and willingness to invest significant corporate resources to bring the product to market.

Northrop Grumman has been the beneficiary of the largest publicly funded defense conversion project in Southern California, and quite possibly the United States. Since September 1992, it has received over $50 million in federal and local transportation funds to design and build six prototypes of the Advanced Technology Transit Bus at the company's South Bay facilities. The jury is still out on whether this bus will successfully emerge from its defense industry womb to become a commercial product that creates jobs and improves the lives of bus riders in this region and elsewhere.

Barriers to technology commercialization vary from project to project but frequently include: reluctance to be distracted from core defense work; institutional memories of over confidence and subsequent failure in past commercialization efforts; insularity from best practices in other industries; lack of familiarity with commercial markets; failure to recognize that marketing is as difficult, and requires as much creativity, as the technical side of commercialization; expectation of predictable return and continuous cash-flow (as provided by DOD), rather than willingness to make investments based on calculated risks and wait for large, but deferred, returns; lack of investment capital; financial structures that require too much early return; and high overhead within defense companies and reluctance to spin-off new entrepreneurial companies with lower overhead and greater flexibility.

Findings from Input-Output Modeling

To investigate the importance of key South Bay industries in providing jobs revenue for the region, an input-output model of Los Angeles County's economy modified to represent the South Bay's industry structure. Using this model of the South Bay economy it is possible to identify the total employment, output and tax revenue effects result from growth or decline in specific industries.

The number of jobs created per million dollars of investment in the South Bay is highest in business services, hotels, retail trade, and consulting and research. The first three of these industries pay low average salaries. The number of jobs created per million dollars of investment is lowest in petroleum products, utilities, real estate, and aerospace. All of these except real estate pay high average salaries.

The industries generating the largest dollar volumes of indirect business taxes in the South Bay economy are real estate ($603.7 million), petroleum products ($474.5 million), retail trade ($456.4 million), air transportation ($356.8 million), and wholesale trade ($252.2

million). It should be noted that taxes paid by the real estate industry are part of the facilities cost paid by all industries occupying rented or leased space.

Imports into the South Bay economy are largest in the petroleum products ($3.26 billion), aircraft, missiles, and space vehicles ($1.69 billion), scientific instruments ($1.34 billion), and air transportation ($1.19 billion) industries. In sum these four industries are responsible for about 54% of the region's imports.

In terms of total dollar volume, the key export sectors for the South Bay were scientific instruments ($4.04 billion), aircraft, missiles and space vehicles ($3.30 billion), air transportation ($3.23 billion), petroleum products ($2.43 billion), and real estate ($1.08 billion). These five sectors accounted for about 57% of the region's total exports.

Proposed Anchor Industries

Based on an analysis of the South Bay's industry structure and the employment and payroll characteristics of South Bay industries the following industries are recommended as anchor industries for targeted business attraction and retention programs:

High Technology
- Aerospace
- Computers, Electronics, Instruments
- High Technology Services
- Satellite Communications

Transportation and Trade
- Water Transportation
- Air Transportation
- Transportation Services
- Wholesale Trade (Durable Goods)

Entertainment and Multimedia
- Motion Pictures
- Multimedia

Each of the proposed anchor industries pays average to above-average wages and salaries, meeting criterion for job quality. Also, the anchor industries are highly concentrated in the South Bay (high technology and international trade) or the Los Angeles area (entertainment and multimedia).

Recommended linked industries to be retained and attracted in conjunction with anchor industries are: metals and machinery industries including manufacturers of aluminum castings, airframe fasteners, aircraft fasteners, and machine shops; and financial services industries including banking, credit agencies, and insurance carriers.

Real Estate and Site Re-Use Findings

One key to the South Bay's future is to remain a high-value-added location where high productivity together with an appealing quality of life justify paying higher land and labor

costs. One of the complaints most frequently heard from expanding and relocating companies about Los Angeles County concerns the lack of modern, master-planned office and industrial parks. The lack of a sufficient number of such facilities puts the South Bay at a competitive disadvantage with Orange County, the Inland Empire, and the west San Fernando Valley.

Huge growth of the South Bay industrial and office inventory in the last 30 years, together with housing and retail, has left few significant undeveloped parcels. Most new office and industrial development is actually in-fill redevelopment of older sites. In-fill development occurs in an environment that is rarely subject to master planning with strong site layout, landscaping, service facilities and similar amenities. Initial development can be attractive and successful, but only with strict planning guidelines.

Large-scale master planning makes expansion easier for growing firms. Master planning can also be a vehicle for expanding the range of industries attracted to a property --- development controls allow different types of operations to co-exist, and they also can attract firms to formerly less desirable locations. Property-specific master planning efforts will often be appropriate, preferably with cooperation of owners. In the absence of such action, developers will build the product that can obtain financing most easily, and cities may not control the process until it is too late for changes.

The South Bay is one of the most depressed office markets in the region, suffering from heavy dependence on aerospace. With approximately 22 million square feet of rentable space, the South Bay office market comprises about 15 percent of the Los Angeles County inventory. There was been little new construction from 1992 to 1996 as vacancy remained above 20 percent and rents relatively low. However, as the economy has recovered, vacancy has edged downward, with the lowest vacancy rates found in El Segundo and Torrance. The outlook for continuing absorption of most vacant space is strong, although some available space is poorly configured for smaller companies that now dominate the rental market. Further increases in rental rates are necessary to spark significant new construction.

With approximately 165 million square feet of space, the South Bay industrial real estate market comprises approximately 21 percent of the Los Angeles County inventory. With little new construction and healthy demand, overall vacancy rates have declined from above 12 percent to below eight percent. Much of the current inventory is considered obsolete: it lacks the high ceilings, landscaped settings, truck docks and other features that users want. This factor and the low vacancy rates are already resulting in new construction. Positive trends in trade activity and construction of the Alameda Corridor also suggest a strong outlook for the industrial market. Impediments include a shortage of master-planned industrial park sites.

South Bay Competitive Assessment

Overview

Major employers see the South Bay as a high-end business environment and a generally desirable place to do business. Strengths identified by employers include a large pool of

skilled and experienced workers, universities that provide needed training, a good work ethic, a strong supplier base, large investments in industrial facilities, presence of the Air Force Base and Aerospace Corporation, transportation infrastructure, and attractive neighborhoods with a high level of public services.

Weaknesses include lack of affordable housing, traffic congestion, long commutes from areas where housing is affordable, and perceptions that affordable communities have substandard schools as well as high crime rates, gang activity, and poor air quality.

International Trade

The South Bay is at the center of the region's transportation logistics hub. Virtually every national retailer has a distribution center in the region. A key requirement of transportation logistics and a strength of the South Bay is the capability to maintain and coordinate a high level of communication with each component of the goods movement network, including the manufacturer or wholesaler, legal and financial entities, ocean or air shippers, customs officials, truckers, warehouses, railroads, and the buyer. All of these are in close physical proximity in the South Bay

The Los Angeles Region in general, and the South Bay even more so, have a shortage of banks with strong international capabilities. Active financiers who understand international trade are important for completing and managing international transactions, which of necessity entails bridging at least two currencies and legal systems with instruments such as letters of credit and sales contracts.

Entertainment and Multimedia

Historically, trade expands around crossroads -- in the case of the South Bay this may be where bandwidth offered by satellites joins content produced by the entertainment industry. The proposed Dream Works Studios in Playa Vista and Manhattan Beach Studios will give the South Bay two important centers in the regional entertainment sector and could stimulate new start-ups. The South Bay commercial satellite industry as well as its nascent entertainment industry both stand to benefit from closer ties through which companies learn how to work together in ways that reduce each other's risk and increase each other's audience.

Institutions for Private-Public Cooperation

In interviews with community leaders and aerospace representatives a parallel insularity was noted: aerospace companies are not aware of the kinds and combinations of economic development tools that could be used to assist them, and a lack of outreach from local government was noted by nearly all large aerospace firms. It is important for the South Bay's future that city, county, state and federal policy makers build direct communication with their counterparts in high technology firms and respond credibly to mutually compatible goals with an eye toward building long-term trust.

The South Bay Cities Council of Governments and South Bay Economic Development Partnership are promising forums for addressing sub-regional issues. The Council of Governments can be the South Bay's cornerstone institution for creating, sustaining and implementing a long-term strategic vision of how the region should manage adversities, uncertainties, and opportunities for recovering from defense cutbacks.

Infrastructure

The South Bay is highly reliant on surface streets for traffic movement and there is significant congestion on some key arteries, which should be the major focus of transportation system improvement strategies. The South Bay does not have a well-developed infrastructure for broad-band information transfer and communications. For computer users, absence of broad-band capabilities means long intervals spent waiting while information is up-loaded or down-loaded at relatively slow rates of speed now permitted by copper telephone wires.

Workforce

The South Bay provides the place of work for approximately 37% of the county's aerospace workforce. Restructuring and shrinkage of the aerospace industry during this decade has had its most severe impacts on production workers because procurement of manufactured defense products has declined much more rapidly than research and development activities. Occupations such as assemblers, machine operators, and mechanics have declined by a significantly larger percent than managers, engineers and computer scientists. The bad news, however, is that those managers, engineers and scientists who were laid-off had much more difficulty finding new jobs in their fields than production workers.

Ten areas of action are recommended for implementing the South Bay Economic Adjustment Strategy:

1. Establish a forum of policy-level local, state, congressional and corporate officials that meets monthly or quarterly and works together to build private-public consensus and act on common interests.

2. Promote growth of anchor industries by: creating university internships in international trade; assembling highly competitive export packages that include both manufactured

products and services; strengthening international banking services; developing training programs for demand occupations in multimedia industries; and providing business outreach services to link multimedia companies with available business assistance and economic development programs.

3. Expand the South Bay sub-contractor base by promoting participation of small and medium size firms in the California Manufacturing Technology Center's aerospace supplier technical assistance program; promote contact between different tiers of aerospace contractors; encourage more South Bay businesses to participate in the Small Business Innovation Research program; and utilize information and contacts available through South Bay technical trade associations.

4. Address infrastructure needs through a financial, technical and organizational strategy for building broad-band communication infrastructure to serve the South Bay, and city coordination to prioritize street improvement needs, share information about improvement plans, and advocate jointly for funding to meet highest priorities.

5. Support high-end re-use of available sites by adopting narrowly-targeted tax incentives for high-benefit industries; expedite new development by adopting mechanisms to avoid individual project-level mitigation negotiations wherever possible; search for major sites that can be master planned for office and industrial projects; create a task force of city planners and local developers to examine obstacles to successful re-use of key sites; and use local funds and additional grants for site-specific master planning for sites that have regional significance.

6. Support worker retraining by making it possible to access information on Work Force 2000 training programs, costs and placement outcomes for each program through the Internet.

7. Improve educational opportunities for children of Air Force families through support and assistance from South Bay school districts and/or support for a charter school that provides high quality education for children in the San Pedro area.

8. Create reliable South Bay data sources by training city staff who oversee collection of business license data in proper industry classification procedures, and use this information together with other data sources to monitor implementation of this strategy and identify new opportunities for economic development.

9. Initiate marketing and outreach efforts to strengthen ties with aerospace prime contractors headquartered in other regions, bring space communications systems and motion picture production companies together, bring second and third tier contractors together, and promote participation of South Bay firms in export training programs.

10. Promote growth in high technology industries by opening access to aerospace patents; recruiting and screening entrepreneurs to commercialize promising technologies; provide technical assistance and financing for start-up companies; and facilitating site expansion, development and worker training by existing high technology companies.

THE INTERNAL ENVIRONMENTAL SCAN

1. Zip Code Analysis of Student Enrollment

Table 5 projects enrollment growth based upon population growth in the 12 zip code attendance areas providing the greatest number of students. These 12 areas generate 55% of the College's total enrollment. This information forms the basis for projections of total enrolled students in the year 2002.

TABLE 5
ZIP CODE ANALYSIS OF STUDENT ENROLLMENT

Zip Code	City	# of Students	1996 Population	2002 Population (Projected)	%Change	# Students (Projected)
90250	Hawthorne	2,404	81,772	83,203	1.7	2,445
90504	Torrance	1,330	30,401	30,680	0.9	1,342
90503	Torrance	1,308	42,498	43,360	2.0	1,334
90278	Redondo Bch.	1,171	35,950	36,475	1.5	1,189
90260	Lawndale	1,135	29,757	29,989	0.8	1,144
90247	Gardena	1,119	46,516	48,040	3.3	1,156
90505	Torrance	921	34,196	34,506	0.9	929
90249	Gardena	883	26,931	27,447	1.9	900
90501	Torrance	832	39,581	40,354	2.0	849
90277	Redondo Bch.	805	33,335	33,634	0.9	812
90745	Carson	716	53,219	54,401	2.2	732
90266	Manhattan Bch.	537	32,915	33,375	1.4	545
TOTAL		**13,161**	**487,071**	**495,464**	**1.7**	**13,377**

(Source: El Camino College MIS with analysis by Maas, Rao, Taylor and Associates)

TABLE 6
TOTAL ENROLLMENT PROJECTION

YEAR	ENROLLMENT
Current Year	23,918

(1998)	
Projected Year (2002)	24,277

(Source: Analysis by Maas, Rao, Taylor and Associates)

Note: The projections in Table 6 assume that the present participation rates per zip code area will remain constant and that the ratio between the 12 zip code areas and the remaining zip codes will remain constant.

2. Zip Code Participation Rates

Participation rates are measured in terms of the number of students from a given population area per thousand inhabitants. Table 7 on zip code participation rates for the top 12 zip code areas shows a wide variation of participation, from 43.7 per 1000 population to a low of 13.5 per 1000. It should be noted that the statewide average participation rate is 37 students per 1,000 individuals in the population, and the average participation rate for these 12 zip code areas is 27/1000. This demonstrates that El Camino College is presently attracting, on the average, approximately two-thirds of the students from each zip code area than should be anticipated using the State standard. If the College were to increase this figure to the State average for just these 12 areas, it would mean an enrollment increase of approximately 8,000 students.

TABLE 7
PARTICIPATION RATES BY ZIP CODE

ZIP CODE AREA	CITY	PARTICIPATION RATE
90504	Torrance	43.7%
90260	Lawndale	38.1%
90249	Gardena	32.8%
90278	Redondo Beach	32.6%
90503	Torrance	30.8%
90250	Hawthorne	29.4%
90505	Torrance	26.9%
90277	Redondo Beach	24.1%
90247	Gardena	24.1%
90501	Torrance	21.0%
90266	Manhattan Beach	16.3%
90745	Carson	13.5%

(Source: El Camino College MIS with analysis by Maas, Rao, Taylor and Associates)

3. Analysis of Population Growth by Five and Ten Mile Radius Data

A second method of analyzing the growth of the College service area is by means of developing five and ten-mile demographic rings with the center of the circle at the College campus. The data reveal that these distances contain more than 80% of the students attending the College.

The area included in this analysis is displayed on the map on the following page.

5 MILE RADIUS DEMOGRAPHIC AND INCOME FORECAST

	1990 CENSUS	1997 UPDATE	2000 FORECAST
Population	632,157	653,202	666,806
Households	220,993	224,403	226,336
Families	149,559	152,004	153,395
Median Age	31.0	32.3	33.1
Per Capita Income	$16,326	$19,470	$21,886
Median Household Income	$37,688	$44,162	$50,073
Average Household Income	$46,368	$56,308	$64,067
Average Household Size	2.84	2.89	2.92

ANNUAL PERCENT CHANGE FOR 1997-2002

	Area	State	National
Population	0.41	1.01	0.98
Households	0.17	0.81	0.99
Families	0.18	0.86	0.87
Median Age	0.50	0.58	0.71
Per Capita Income	2.37	2.32	2.84
Average Household Size	0.24	0.22	0.02

	1990 CENSUS		1997 UPDATE		2002 FORECAST	
HOUSEHOLDS BY INCOME	**Number**	**%**	**Number**	**%**	**Number**	**%**
Less than $15,000	37,746	17	29,110	13	23,871	11
$15,000-$24,999	31,160	14	25,633	11	21,958	10
$25,000-$34,999	33,141	15	30,188	13	27,181	12
$35,000-$49,999	39,843	18	40,439	18	39,935	18
$50,000-$74,999	44,357	20	46,721	21	48,173	21
$75,000-$99,999	19,522	9	25,238	11	27,814	12
$100,000-$149,999	11,323	5	18,817	8	24,645	11
$150,000+	4,362	2	8,257	4	12,733	6
POPULATION BY AGE	**Number**	**%**	**Number**	**%**	**Number**	**%**
0-4	51,729	8	53,460	8	52,501	8
5-14	84,013	13	92,623	14	95,052	14
15-19	42,019	7	41,141	6	43,370	7
20-24	55,262	9	45,986	7	49,531	7
25-34	134,969	21	128,439	20	115,363	17
35-44	96,365	15	111,514	17	110,847	17
45-64	114,808	18	127,423	20	148,560	22
65-74	33,883	5	32,113	5	30,092	5
75-84	14,741	2	15,955	2	16,511	2
85+	4,368	1	4,549	1	4,978	1
RACE AND ETHNICITY	**Number**	**%**	**Number**	**%**	**Number**	**%**
White	296,735	47	281,337	43	271,023	41
Black	154,699	24	150,873	23	145,491	22
Asian/Pacific	83,390	13	100,174	15	111,798	17
Other Races	98,333	16	120,819	18	138,493	21
Hispanic (any race)	165,943	26	206,300	32	236,490	35

(Sources: 1990 Census and CACI forecasts for 1997 and 2002)

10 MILE RADIUS DEMOGRAPHIC AND INCOME FORECAST

	1990 CENSUS	1997 UPDATE	2000 FORECAST
Population	2,166,405	2,216,955	2,257,746
Households	696,395	699,783	704,022
Families	488,710	492,711	496,646
Median Age	29.3	30.5	31.1
Per Capita Income	$13,728	$16,691	$18,944
Median Household Income	$31,920	$38,200	$43,294
Average Household Income	$42,241	$52,383	$60,191
Average Household Size	3.08	3.14	3.18

ANNUAL PERCENT CHANGE FOR 1997-2002

	Area	State	National
Population	0.37	1.01	0.98
Households	0.12	0.81	0.99
Families	0.16	0.86	0.87
Median Age	0.39	0.58	0.71
Per Capita Income	2.56	2.32	2.84
Average Household Size	0.25	0.22	0.02

	1990 CENSUS		1997 UPDATE		2002 FORECAST	
HOUSEHOLDS BY INCOME	Number	%	Number	%	Number	%
Less than $15,000	163,397	23	125,872	18	103,670	15
$15,000-$24,999	110,612	16	94,932	14	83,252	12
$25,000-$34,999	102,149	15	96,986	14	91,266	13
$35,000-$49,999	114,978	16	118,542	17	119,006	17
$50,000-$74,999	113,482	16	126,090	18	133,709	19
$75,000-$99,999	48,572	7	61,979	9	71,025	10
$100,000-$149,999	29,848	4	48,300	7	62,081	9
$150,000+	14,513	1	27,082	4	40,013	6
POPULATION BY AGE	Number	%	Number	%	Number	%
0-4	201,887	9	205,190	9	200,854	9
5-14	334,994	15	365,051	16	373,926	17
15-19	163,291	8	158,914	7	167,168	7
20-24	196,409	9	161,614	7	173,350	8
25-34	423,776	20	397026	18	354,802	16
35-44	306,981	14	351,688	16	348,581	15
45-64	354,468	16	394,389	18	459,758	20
65-74	114,197	5	107,771	5	100,709	4
75-84	54,672	3	58,843	3	60,586	3
85+	15,731	1	16,472	1	18013	1
RACE AND ETHNICITY	Number	%	Number	%	Number	%
White	831,780	38	798,093	36	775,850	34
Black	607,269	28	571,673	26	541,799	24
Asian/Pacific	181,516	8	221,287	10	248,971	11
Other Races	545,840	25	625,901	28	691,126	31

Hispanic (any race)	837,861	39	965,650	44	1,064,169	47

(Sources: 1990 Census and CACI forecasts for 1997 and 2002)

4. Enrollment History

Table 8 presents the enrollment history data of El Camino College from 1990 through 1998.

TABLE 8
EL CAMINO COLLEGE ENROLLMENT TRENDS

1990	1991	1992	1993	1994	1995	1996	1997	1998
27,161	25,237	24,346	23,319	21,801	21,640	22,675	23,029	23,918

(Source: El Camino College MIS Database)

5. Service Area Population Growth Projections

Table 9 shows population growth projections. It is based upon the growth of the service area described in the 12 zip code areas and the population base found within the five-mile and ten-mile rings surrounding the College campus. These projections (1998-2002) are built upon extensive population growth statistics compiled by public and private sector demographers.

TABLE 9
POPULATION GROWTH PROJECTIONS
(Within Designated Distances from El Camino College)

DESCRIBED AREA	GROWTH/YEAR	GROWTH TO 2002
Top 12 Zip Code Areas	.43%	1.7%
5 Mile Circle from College	.41%	1.6%
10 Mile Circle from College	.37%	1.5%

(Source: CACI Marketing Systems, DOF-State of California, UDS, Inc., IMS, Inc., September 1997)

ANALYSIS OF ENROLLMENT GROWTH

There were several demographic factors considered in making a projection of the 2002 enrollment for El Camino College. Initially, it was noted that the 12 highest zip code attendance areas produce 55% of the total enrollment at El Camino College. The average projected growth of these 12 areas between the years 1998 and 2002 is projected to be 1.7%. The zip code data presented in Table 7 reflect the major sources of enrollment for the College, and since demographic projections for these areas indicate a minimal growth, it follows that the College can anticipate an enrollment in the year 2002 of approximately 24,277 students.

Another set of data --- age composition --- demonstrates a virtual status quo (actually a 1% decrease) in those segments of the population presently enrolled or potential enrollees in the next two decades. Assuming present participation rates remain constant, this factor indicates a minimal enrollment growth.

The ethnic composition of the service area compared to the current student body indicates a decline in the white and black cohorts and an increase in the Hispanic and Other cohorts. The Asian population is projected to increase slightly (1%). The Hispanic cohort is under-represented by 17.5%. This group is projected to show the greatest growth rate in the community between 1998 and 2002. These factors will not significantly impact enrollments by 2002.

Recent projections from the California Community College Chancellor's Office indicate student enrollment for the College in 2003 will be approximately 25,723. However, recruiting efforts focusing on the Hispanic segment of the community may significantly increase enrollment by the year 2003.

1. Age Composition of Student Body

TABLE 10
EL CAMINO COLLEGE STUDENT BODY
(Age Distribution, Fall 1998)

AGE	% OF POPULATION
Under 20 years of age	25.4%
20-24	30.9%
25-29	14.6%
30-34	9.0%
35-39	6.8%
40-44	5.0%
45-49	3.4%
50-54	2.1%
55 and older	2.8%

(Source: CCC Census Student Data System — Selected Statistics)

2. Projected Changes in Age composition in the 10-Mile Service Area

Table 11 shows those individuals most likely to attend the College.

TABLE 11
EL CAMINO COLLEGE STUDENT BODY
(Projected Changes in Age Composition)

AGE	% OF POPULATION (1997)	% OF POPULATION (2002)

0-4	9%	9%
5-14	16%	17%
15-19	7%	7%
20-24	7%	8%
25-34	18%	16%
35-44	16%	15%

(Source: Analysis by Maas, Rao, Taylor and Associates)

A review of these data indicates that there is no reason to anticipate a significant enrollment "bulge" in the two decades. Although the percentage of the population in the 15 to 44 year age group is expected to decline, the 20-24 year old group is expected to increase by only 1%. This total group (15-44 age group) is expected to decline slightly (48% to 46%) by the year 2002.

3. Ethnic Composition

Table 12 describes the ethnic composition of the students at El Camino College.

TABLE 12
KNOWN ETHNIC COMPOSITION, FALL 1998
(El Camino College Student Body, Fall 1998)

ETHNICITY	% OF POPULATION
Hispanic	27.2%
White	25.7%
Black	19.9%
Asian	15.2%
All Others	12.2%

(Source: CCC Census Student Data System — Selected Statistics)

4. Differential between Ethnic Composition of General Population and Student Body

Table 13 compares the ethnic composition of the El Camino College Student Body with the general population in the communities served by the college.

TABLE 13
GENERAL POPULATION AND STUDENT BODY COMPARISONS
(Ethnic Composition Presented as Percentages, Fall 1998)

ETHNICITY	GENERAL POPULATION	STUDENT BODY	% DIFFERENCE
Hispanic	44%	27.2%	-16.8%
White	36%	25.7%	-10.3%
Black	26%	19.9%	-6.1%
Asian	10%	15.2%	+5.2%
All Others	28%	12.2%	-15.8%

(Source: El Camino College MIS with analysis by Maas, Rao, Taylor and Associates)

5. Full Time Equivalent Students

Another measure of the enrollment trends at a community college is the total Full Time Equivalent Students (FTES) generated in an academic year. Table 14 presents the FTES calculation for El Camino College from 1990-91 to 1997-98.

TABLE 14
FULL TIME EQUIVALENT STUDENTS
(El Camino College 1990-91 through 1997-98)

YEAR	FALL ENROLLMENT	SPRING ENROLLMENT	AVERAGE ENROLLMENT	RESIDENT FTES	SUMMER RESIDENT FTES
1990-91	27,161	25,480	26,321	N/A	N/A
1991-92	25,237	25,309	25,273	N/A	NA/
1992-93	24,812	23,842	24,327	15,703	1,031
1993-94	23,219	22,824	23,072	14,835	832
1994-95	21,801	21,532	21,667	13,982	1,138
1995-96	21,640	22,429	22,035	14,479	1,477
1996-97	22,675	22,029	22,352	14,881	1,609
1997-98	23,029	22,283	23,156	15,289	N/A

(Source: El Camino College MIS with analysis from Maas, Rao, Taylor and Associates)

A. Student Full-Time/Part-Time Ration

Data presented in Table 15 indicate that almost three-fourths of the student body are part-time students.

TABLE 15
FULL-TIME/PART-TIME STUDENT RATIO
(El Camino College Fall, 1998)

STATUS	# STUDENTS	PERCENTAGE
Full-Time	5,934	25.8%
Part-Time	17,022	74.1%
Non-Credit	29	.1%

(Source: CCC Census Student Data System — Selected Statistics)

6. Graduates

One measure of the success rate of the students attending a college is the number of graduates and/or certificates awarded. Table 16 presents these data for the years 1992-1998.

TABLE 16
GRADUATION/CERTIFICATE HISTORY
(El Camino College 1992-1998)

YEAR	CERTIFICATES< 2 YEARS	ASSOCIATE DEGREES
1992	151	1,129
1993	187	1,187
1994	190	1,230
1995	147	1,220
1996	143	1,297
1997	113	1,269

1998	180	1,087

(Source: El Camino College Admissions and Records Office)

7. Residency

TABLE 17
DISTRICT RESIDENCY
(El Camino College Fall, 1998)

RESIDENCE	# STUDENTS	PERCENTAGE
In-District	12,681	55.2%
Other C.C. District	9,509	41.4%
Other States	59	0.3
Foreign	478	2.1
Unknown	257	1.1

(Source: CCC Census Student Data System — Selected Statistics)

B. Student Gender

Table 18 presents the gender distribution among El Camino College students for the fall 1998 semester.

TABLE 18
STUDENT GENDER
(El Camino College Fall, 1998)

GENDER	# STUDENTS	PERCENTAGE
Male	10,230	44.5%
Female	12,755	55.5%

(Source: El Camino College MIS)

8. Classification of Employees

Employee classifications at El Camino College, as of June 1998, reveals that the staffing pattern is consistent with other California community colleges with the majority of employees assigned to instructional and support service responsibilities. The total number of college employees in June 1998 was 1,135.

TABLE 19
CLASSIFICATION OF EMPLOYEES
(El Camino College June 1998)

PROFESSIONAL		MANAGEMENT		TECH/OFFICE/CLERICAL		SKILLED/SERVICE	

Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
738	65%	34	3%	227	20%	136	12%

(Source: El Camino College Office of Human Resources)

Ethnic Distribution of Employees

Illustrated in Table 20 is the ethnic distribution of El Camino College employees as of June 1998.

TABLE 20
ETHNIC DISTRIBUTION OF EMPLOYEES
(El Camino College June 1998)

WHITE		AFRICAN AMERICAN		LATINO		ASIAN	
Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
670	59%	148	13%	204	18%	114	10%

(Source: El Camino College Office of Human Resources)

9. Employee Gender Composition

TABLE 21
GENDER COMPOSITION OF EMPLOYEES
(El Camino College June 1998)

MALE		FEMALE	
Number	Percentage	Number	Percentage
568	50%	567	50%

(Source: El Camino College Office of Human Resources)

THE UNIT PLANNING GUIDES

The unit planning process involved participation by every operational entity within the College. Each unit was asked to complete a separate planning document, called the Unit Planning Guide, for the specific area.

1. Unit Planning Guide Trend Statements

Summary statements taken from the Unit Planning Guides present topics and ideas that have been repeated in one form or another in many of the individual documents. They present concepts considered in the overall master planning process, in a review of the present function of the College and in the establishment of planning priorities. They have been sub-divided into three major categories --- Instruction, Support Services, and Administration.

INSTRUCTION

1. CalWORKs/Welfare Reform programs will become increasingly important.

2. Increasing numbers of working students and a need to expand job placement services is anticipated.

3. Students will arrive at college less prepared to benefit from college classes, and as a consequence basic skills education will expand and become more diverse.

4. The traditional assumptions and methods of training the workforce will no longer be viable in the future.

5. Life-long learning is a fact of life, 3% of the workforce will need to be retrained every year for the next three decades.

6. Expansion of technology has created a need to infuse all classrooms and laboratories with the capability to network with information systems.

7. Individualized, self-paced instructional systems will become increasingly important as an instructional delivery alternative.

8. Academic support services will be increasingly important to student success.

9. Distance learning will be critical to the survival of the College in the next two decades.

10. Faculty should continuously seek new methods of instructional delivery and new ways of serving the complex needs of students.

11. Increasing numbers of jobs will be reliant on technology --- technology training must be appropriate to this need.

12. The workplace of the future, including the College itself, will require worker flexibility, and adaptability, with retraining a continuous process.

13. The future of learning delivery will become intensely competitive between traditional schools and Colleges, private sector learning centers, and business and industry.

14. Foreign trade, particularly Pacific Rim trade, will redefine the business program and intensify the need for foreign language and cultural comprehension.

15. The presence of the Internet, computer-based information resources, and computerization of many fields of study indicates a continual need to redefine many instructional areas.

16. It is essential to devise strategies that will permit the rapid mainstreaming of learning disadvantaged students in order to permit them to benefit from and rapidly complete the College's courses and programs.

17. Non-traditional course scheduling, including short term classes, modular programs, and high intensity learning experiences should be supported and offered in a variety of subject disciplines.

18. A continuous review of the changes in the health care industry must be undertaken on an on-going basis in order to maintain program viability in this critical area.

19. Obsolete laboratories cannot provide student experiences that are appropriate to the needs of students training for 21st century jobs. These laboratories should be up-dated or the programs eliminated.

20. Web sites should be developed in a variety of instructional program areas.

21. Coordination between the instructional program and support services must be a continuous process in all areas of College operations.

SUPPORT SERVICES

1. Increasing need to provide special services for disadvantaged students.

2. Increasing need to address needs of student parents, particularly single parents, including child care and parenting.

3. Students are older, more diverse, traveling greater distances to attend college and require special services that take these factors into account.

4. Fewer students have health insurance.

5. Student mental health needs are becoming more complex.

6. Need for comprehensive health services to meet increasingly diverse student health needs.

7. Need for more computer-based systems to support student services, track students, and expand services to students.

8. Students with disabilities will continue to need innovative and increasingly diverse support services.

9. Minorities are the fastest growing segment of the Southern California population, many with special needs and requirements.

10. It is essential to devise strategies that will permit the rapid mainstreaming of learning disadvantaged students in order to permit them to benefit from and rapidly complete the College's courses and programs.

11. Student assessment is a vital component of occupational education.

12. Coordination between the instructional program and support services must be a continuous process in all areas of College operations.

ADMINISTRATION (COLLEGE-WIDE)

1. Partnerships and collaborative arrangements between the College and the community will permit the institution to maximize financial and human resources.

2. Technology will thoroughly invade the classroom, demanding technological literacy of faculty.

3. Alternative funding sources are essential to the survival of the College.

4. Libraries will be totally redefined, as electronic information retrieval becomes the major method of research.

5. Continuing education for all staff will be an on-going process in the next decade and critically important to the full implementation of technology in the classroom.

6. Technical support services will become increasingly important for both instruction and support service areas.

7. Precise communication between the College and the community must take place in order to maintain curriculum and support services that are continuously appropriate to the needs and requirements of the service area. A change-responsive process must be put in place to oversee additions, deletions, and other modifications to the instructional program that will keep it at a "state-of-the-art" level.

8. Change will be the dominant force in the next two decades, with even a change (increase) in the rate of change.
9. Community Advancement is a concept that can move the College into the 21st Century and establish vital networks with the business and industry of the service area.

10. Small business development programs and business incubators are a critical link in the interface between the economic development of the community and the College.

11. The Center for Applied Competitive Technologies is a significant force in local economic development and constitutes a vital network of service to area employers.

12. There is a need to develop coordination between all of the College community outreach programs in order to provide comprehensive service without unnecessary duplications.

13. Increasing outreach to the community by all departments within the instructional program will increase viability of the entire curriculum.

14. Academic and instructional excellence is a continuous process to be pursued in all instructional areas.

15. Timely maintenance of equipment is vital to the continued excellence of programs and services.

16. Development of an increased number of grant proposals will increase the ability of many instructional areas to provide "state-of-the-art" programs.

17. Public information, student recruiting, and increased on-line capabilities will enhance the College's opportunity to attract students and additional support from the community.

18. The increasing number of new programs at the College coupled with the impact of an aging campus will create increased emphasis on the need to upgrade facilities, increase maintenance, and provide additional support for the facilities area.

19. There is a continuing need to modify facilities as the result of programmatic changes and increases in the use of technology. This need has created increased pressures on many departments within the Facilities Planning and Services area.

UNIT PLANNING GUIDE SUMMARY STATEMENTS

Respondents completing Unit Planning Guides provided brief summary statements regarding their vision for the future of the program or service and the implications anticipated for future planning. These summaries (as written by each unit) are presented in alphabetical order.

Academic Strategies

1. To improve student success at the College by providing the necessary support courses to enable them to reach their goals as well as retention.
2. To increase coordination with campus faculty regarding student support course.
3. To increase full-time faculty to support growth and demand for courses.
4. To increase basic skills sections to meet the growing demand.

5. To implement a state-of-the-art Basic Skills Center utilizing a variety of technology and learning aids for students.

Accounting

1. To have funds available dedicated to keeping the accounting lab up-to-date with state-of-the-art software and hardware. This would also include Internet capabilities.
2. To have funds available to keep the accounting lab open to accounting students to help them succeed in class and help reduce attrition. This would include user-support such as a supervisor per lab during operating hours.
3. To have a laptop computer for all full-time accounting faculty as encouragement to expand their knowledge on technology and to enable them to proficiently integrate this into their classes.
4. To review the scheduling of classes, curriculum, certificate program and A.S. degree as the need arises.
5. To have release time and/or flex time for faculty training in current trends in technology.

Adaptive Physical Education

1. Adequately advertise and serve the community in offering educational APE courses for individuals with disabilities.
2. Obtain exercise equipment that is accessible, durable, and reliable in determining measurable progress.
3. Exercise facilities and offices are accessible, spacious, and adequately ventilated.
4. Obtain computer network capability that will allow instructors to complete Student Educational Contracts in the Adapted Physical Education fitness room and offices via use of computers and have access to Special Resource Center and ECC mainframe.
5. Obtain audio-visual equipment that will enhance learning and will aide students in the proper use of equipment.

Administration of Justice

The field of criminal justice remains a viable field with a strong job market. The Administration of Justice department must continue to strive to meet anticipated future needs. Advances in automation must be embraced in curriculum content and teaching methodology. Changing demographics dictate that courses, especially AJ 115 (Human Relations) remain sensitive to those changes. Writing across the curriculum must be emphasized, as rising concerns relative to writing deficiencies of entering students becomes more apparent.

Administrative Services-Purchasing

The role of the Purchasing Division will be to continue to provide service and support to customers both on and off campus, while representing the District's and taxpayers best interests in accordance with established laws, regulations, policies and procedures.

Further, it will be the Division's responsibility to assess problem areas of customer support and be more responsive to staff and customer expectations and needs. This will require developing alternative and more streamlined methods of doing business, assessing technological opportunities to improve service, automating manual processes and eliminating bureaucracy whenever possible.

In addition, the Division will continue to be responsible for, and take a pro-active role in, seeking out and building partnerships with the general public related to the services the Division provides (namely purchasing services, contract services, risk management services and food services.)

Admissions and Records

We feel our department goals clearly state our most vital and future oriented goals. Additionally, we feel that it is vital to the goal of providing efficient and caring services to our students that the Cashiers' operation be housed in the Student Services Building.

Air Conditioning and Refrigeration

Employment: It is important that our program maintain close ties with industry representatives to enable our students to be placed in industry. Our advisory council must be continually maintained and refreshed with representatives from manufacturers, small and large businesses.

Equipment: It is imperative that we get state-of-the-art equipment so we do not teach old ideas with old equipment.

Seminars: Links needs to be increased with industry to assist in keeping us apprized with new innovations, whether it will be with computers or new refrigerants.

Curriculum: Change old and outdated structure to accommodate the needs of the students for employment. Incorporate digital technology in all appropriate courses.

Anthropology

The Anthropology Department needs an additional full-time instructor with expertise in Physical Anthropology (the current full-timer is a Cultural Anthropologist) and experience in museum work. The department's ability to effectively service the diverse student population enrolled in Anthropology classes is dependent on a new hire.

Additional curriculum including courses on women, religion and a Physical Anthropology lab class will not only diversify the department's program, but also generate greater enrollment and FTES. Please note that the department has not added new courses to the curriculum since the early 1980s.

The department will also need to invest more time in developing student and faculty use of computer-based instruction that will enhance their analytical, technical and general academic skills and abilities.

Architecture

The department's most vital goal is to stay abreast with the needs of the Architectural industry. The most important variable to concentrate on is the computer and how a student can use it to do various operations required in an architect's office.

Art

The Art Department has a comprehensive art curriculum that also includes an art gallery. The studio facilities are excellent even though their equipment is showing age. Digital technology has had a significant impact on artists in general and in graphic arts specifically. The Internet is a significant resource for art history classes. Adaptations in curriculum, facilities, and equipment

upgrades are essential as a result of these influences. Faculty is finding it necessary to quickly update their computer skills to maintain pace with their students. Qualified faculty to teach computer art classes are very difficult to find which is impacting the growth and development of this area of curriculum. Student demand is very high. This growth will likely continue in all art courses because of the high employment opportunities in the Los Angeles area and the nation.

Astronomy

We need to maintain the high level of astronomy instruction by:

1. timely maintenance of existing facilities;
2. continual upgrading of equipment;
3. timely replacement of retiring senior faculty;
4. timely involvement of faculty in decisions;
5. course development which is consistent with changing student and community

Automotive Collision/Repair, Painting

The field of automotive collision repair and painting has been greatly impacted by changes in technology. Vehicle construction and strict environmental regulations has had a serious impact on body shops in the area. It is critical for the El Camino program to keep abreast of changes in the industry and to be equipped to prepare students for employment in the field. Employment opportunities are only available for those who are trained in the latest technology and regulations.

Automotive Technology

The most important departmental goal is to provide state-of-the-art training, resulting in technicians who can serve the motoring public with competence and integrity while protecting the environment in the maintenance and repair of highly sophisticated, modern computer controlled automobile.

The above goal can be achieved if the students are provided with the infrastructure and allied means to receive cutting-edge training. The evolution of the modern vehicle continues to be a repair monster and technician's challenge, yet this challenge can be met with proper planning and commitment. The Automotive Technology instructional staff has continued to keep their knowledge current by attending factory training and seminars provided by industry partners such as Toyota Motor Sales U.S.A. To continue this effort in sharing our knowledge and skills with our students, the facilities require expansion, and the program has to provide updated equipment. We need help now.

Behavioral and Social Sciences

The Division of Behavioral and Social Sciences offers students courses that fulfill general education transfer requirement certification or an A.A./A.S. degree. The division also offers certificates for students majoring in Early Childhood Education.

The division curriculum has expanded over the last five years to incorporate courses that address the diverse student body that attends El Camino College. Various departments will continue to revise their curriculum to reflect the multi-cultural lifestyle reflected in our surrounding community and student population. In addition, weekend College courses are being offered as are on-line Child Development, History, and Philosophy classes.

Business & Entrepreneurial Success Training

1. Most vital of the near-term goals of ECC BEST, is the establishment of an Entrepreneurial Business Library, with an emphasis on marketing and database access, complete with books, publications and other media resources, including computer stations with ISDN Internet.
2. Secondly, the capacity to communicate with El Camino College main campus and all outreach locations and partnership agencies and businesses through telecommunications linkages.
3. Thirdly, the capability to provide state-of-the-art presentations in a facility which will accommodate multi-purpose events; such as conferences, seminars, panel forums, product presentations/demonstrations, classroom training, teleconferencing, and person-to-person meetings.

Community Advancement/CACT

1. The Center for Applied Competitive Technologies (CACT) will develop a flexible and agile training response system to meet the needs of a changing and growing manufacturing industry.
2. The CACT will expand it's professional contract staff to meet the growing needs of manufacturers and to develop, market and administer our technical services and training programs.
3. The CACT will integrate our outreach programs to manufacturers with the instructional programs of El Camino College.
4. The CACT will have the on-campus office and training space necessary to support the expanding revenue generating program that is under development.

Center for the Arts

Annually allocate expense budgets to meet needs of College, community and lab courses while replacing/repairing equipment and meet income projections.

Center for the Arts is one of the most "public" programs at ECC, generating income and awareness through advertising and promotion campaigns. However, each year we lose buying power in the marketplace as inflation eats away at our static budget that never changes. It becomes more and more difficult to make our dollars go farther while still meeting specific concert requirements. The ethnic composition of the students and community have required program changes for more culturally diverse artists and attractions while audiences for classical music have declined. This requires us to re-think the number and types of concerts that we will present in future seasons and how to best allocate budgets for artist fees, advertising/promotion, and production needs while still trying to keep our equipment repaired and replaced without any equipment budget from the College.

Increase design course to meet needs of entertainment industry. To provide a better relationship between Center for the Arts events and educational activities by having increased number of courses in design for stagecraft, costume, lighting, makeup, props in order to provide more learning and training opportunities in both the presenting and production programs done by Center for the Arts. This would also apply to having advanced graphic design courses in order to use graphic design students for promotional assistance.

Chemistry

1. Modernize Chemistry courses, laboratories, and stockrooms by incorporating more computer technology into all aspects of the Chemistry program.
2. Expand program to include on-line and telecourse offering to accommodate more students with increased use of computer tutoring and off-campus availability.
3. Modernize on-campus facility to be the focal point of chemistry teaching for the entire program.
4. Increase the number of Certificated and Classified Staff to accomplish the expanded computer offerings and diversified teaching programs.

Child Development Center

The CDC will provide a quality early childhood education program for young children. Families that utilize the CDC will feel trust, comfort and security when they leave their children in the hands of the experienced and professionally trained CDC staff. The CDC will act as a laboratory setting to train students in the field of child development, and will also create opportunities for parent participation. Students and staff of ECC will have priority for enrollment in the program.

With the anticipated growth and need in the area of child care, funding for the CDC will need to be evaluated. ECC District support would offer not only fiscal stability, but also would re-emphasize the fact that the CDC is a part of the ECC campus and specifically a part of the Student Services Division.

Services at the CDC will expand when Phase II is built and an early childhood education program will become available for infants and toddlers, including children with developmental disabilities.

Childhood Education

1. The construction of an additional component to the Child Care Center in order to provide Childhood Education majors with a practicum site to complete certificate requirements for the program.
2. The establishment of a science complex wing dedicated to childhood education.
3. Expansion of the program into areas of parent education.
4. Additional classroom facilities are needed to service the expected increase in student enrollment in Childhood Education.

Computer Information Systems

1. CIS labs to contain state of the art equipment, Internet capable (change/upgrade every 2-3 years).
2. Permanent classrooms, with equipment in fixed locations (wall/ceiling mount).
3. Adequate size classrooms with proper lighting.
4. State of the art computers for each CIS faculty member.
5. Larger offices for each faculty.
6. Some open labs 24 hours a day plus staffing for the labs.
7. CIS is a changing field - Support for faculty to gain new knowledge (time for workshops, release time).

Community Advancement Division

The Community Advancement Division will be a leader in the development of consulting services and workforce training programs for the region. The Center for Business Training will be a leader in the South Bay for technology training for manufacturing companies and service industries, professional development and employee skills training, small business development, training for international trade development, and business entrepreneurial training and assistance. Business will look to the Center for Business Training for affordable assistance, immediate bottom-line results, convenient and flexible training schedules, consulting/training resources and funding sources, and practical real-work solutions.

In addition, the Community Education program will be a leader in offering

1. continuing education units for various careers,
2. just-in-time training for changing and emerging employment opportunities, and
3. be the South Bay's resource for the community's recreational and personal development short-term, fee-based, not-for-credit educational programs.

Community Education

1. Expansion of the Community Education database to include ability to enter and extract additional information for reporting, financial and marketing purposes. Expansion of the database cannot be done, nor the database properly maintained, without staff trained in database development.
2. Expansion of College for Youth programs. Hire a project coordinator to work with school districts, superintendents, principals, counselors and teachers to develop a pool of instructors and a standard offering for summer, fall and spring sessions for all age groups. The CFY program will include a day camp for children in the community whose parents need supervised summer activities for their children.
3. Expand registration options to include 24-hour registration and on-line registration. The competition will have this ability and we must be competitive in all areas in order to thrive.
4. Develop Continuing Professional Education programs, i.e. paralegal, real estate, etc. to meet the needs of the professional community. Establishing these types of programs open the doors to creating additional courses and certificate series as well as mini-conferences or symposia.

Computer Aided Design/Drafting

The field of Computer Aided Design changes very rapidly. The capability of computers allows software developers to completely change design and function on a too frequent basis. In order for our graduates to be competitive in the job market, they must be capable on a "state-of-the-market" hardware and software platform. El Camino, once the leader in CADD education and training, fell to the back of the pack by the middle 1990s. Funding the last two years has helped tremendously by retiring some very old computer systems. Much more work and funding is needed to again be in a position where we are competitive with private schools and providing students the skills they need.

Construction Technology

The Construction Technology faculty and staff focus their energy on the following three areas: 1) the programs offered by the department curricula revisions and updating; 2) the expansion of the program in terms of a larger variety of construction related course offerings and more construction

students; and 3) the facilities and equipment requirements to effectively run an expanded, revised, and updated program.

Cooperative Career Education

Work site learning has become a critical issue for employers. Academic instruction is beneficial for vocational students, but the work site component is where employers report that it all comes together. A shortage of trained personnel has caused most employers to become involved in training of one sort or another. Since training is costly for employers, most are very willing and in fact encourage their employees to participate in a work experience program. In addition, apprenticeship training is a growing mechanism for training a workforce. Apprenticeship consists of formal classroom instruction coupled with hands on training under the direction of a journey worker. This training model also fits the cooperative career education program and is supported by the Governor's state job training coordinating council.

Cooperative Career Education is a critical component of vocational education and requires continued support to meet the needs of our business and industrial community.

Cosmetology

The Cosmetology program has an excellent reputation for preparing students to pass the State Board's licensure test. Much more than this however, our students are prepared for the world of work. Our facilities consist of one salon and one classroom, which are adequate for one group of 25 students. For the past five years, we have been running two classes of 25+ students. The facilities must be renovated and improved to accommodate this number of students safely and legally. The department also needs equipment for visual aids, modern workstations, and equipment. Each classroom used for theory classes should be separate from the lab area. Senior students should have a salon set up which they manage and run with the supervisor as an instructor.

Counseling

1. Increased partnership planning.
2. Increased grant linked activities (athletic tutoring, ESL orientation, Special Resources Center).
3. Presence at One Stop Career Centers; lap top linkages.
4. Expansion of Human Development Classes.
5. Increased Career and Transfer Center activities.
6. Basic skills testing/assessment promoted by para-professionals.
7. In-office capability to produce data for research (CAPP-Link and Datatel).
8. Orientations and other information available via Internet.
9. Teleconferencing and virtual counseling available on call.
10. Career counseling integrated into the curriculum.
11. Module career classes; open entry/open exit.
12. College Success classes reaching a critical mass of students.
13. Regularly scheduled training in technology and information retrieval for all staff.
14. Tracking of student contact hours.

Culinary Arts

1. To reactivate the Culinary Arts program, formerly called Food Service.
2. To recruit and develop the Culinary Arts faculty.

3. To utilize the Cafeteria kitchen for Culinary Arts lab classes.
4. To modernize the current laboratory, NS 110.
5. To consolidate the campus Food Service and Culinary Arts program.
6. To develop a Food Service Management program.

Dance

The dance curriculum has recently been revised and is well structured and comprehensive. The dance major is provided a rigorous program of theory, history, technique and performance requiring 30 units of dance instruction. The department awaits final approval of this curriculum to be designated as a dance major. A diverse coverage of ethnic dance forms and social dance are also provided. The dance facilities are excellent although there are improvements that need to be made.

Enrollment growth is a significant goal so that levels I and II can be separated for more effective and challenging technique development.

Production budgets have been improved recently, but are not yet adequate for College-level production values.

Distance Education

The Distance Education Office strives to become a premiere distance learning program in the state. It will continue to maintain a high level of support to faculty and students, while concentrating on program expansion. It will work toward the acquisition of funding for equipment, staffing and training.

Earth Science

1. More full-time faculty for a more cohesive department and better instruction. The department has been operating at a 50/50 ratio for many years and we believe that the department suffers as a result.
2. Using technology to supplement the job of the teacher. Access in the classroom to the Internet, CD-ROM, etc. would bring our department into the 21st century in a timely manner.
3. More technical support to better manage increased laboratory activity. A full-time laboratory technician will provide the support our active department requires.
4. Improve classroom environment for a better learning experience. Wiring, ventilation, seating, lighting, etc. are 35 years old, and there is no air conditioning.

The Earth Science department priority list is intentionally short to emphasize the four most critical needs in our department.

Economics

Since we at El Camino College are serving a more diverse student body than we did in past years, it is of prime importance that we educate the students we have and not simply enroll them in classes to collect state funding.

We need to consider three educational reforms at ECC to assist students in achieving their educational goals:

1. Students' educational accomplishments need to be accessed upon their initial enrollment.
2. Based upon the results of the achievement tests an educational program should be established for the students. This program definitely needs to establish more structure regarding the courses students take and the order they are taken in than is currently occurring.
3. A test, given by the counseling office similar to the adult literacy test, should be given prior to the student completing his work at ECC. This would give our students additional basis for comparing their abilities to the grades in individual classes. Much of the testing in individual classes emphasizes short-term memory. The adult literacy test focuses on long-term learning.

Education and Community Development

Enhance and expand the El Camino Language Academy that will not only offer training to F-1 Visa students but also other targeted audiences (e.g. groups of foreign students, business men and women, and those who have family members who may be in the United States on a short term basis). ECC will be known as the number one resource for intensive language training.

Establish CalWORKs' based programs that provide short-term intensive training that prepares participants with increased employment skills. These classes will be open to all ECC students and will compliment our existing classes.

Establish short term and intensive courses needed for various individuals in high demand occupations. Examples will include occupations in the medical and technology areas.

Establish programs, which will offer a series of classes where certificates will be given at the completion of the courses. Classes and training activities will be customized to meet specific goals and requirements.

Electronics

The Electronics Department at El Camino College is known statewide. To continue in providing the quality of instruction, labs must either be renovated or replaced. Because of technological changes, video, networks and modern AV equipment should be installed to enhance instruction. The College must make a commitment to support this program in both staff and department facility development.

The most important priority for the Electronics program is to increase the awareness in the community to the opportunities that exist in the field for employment and entrepreneurship, and to the excellence of the electronics program at El Camino College. El Camino must match the effort made by private schools to recruit and retain students. The negative images sometimes associated with technical training as compared with university training must be changed. The number of associate degree recipients that transfer to the universities must be increased. The most important tasks for the Electronics Department are to: 1) Become known!, 2) Recruit!, 3)Retain!

English

The future goals of the English Department will be to increase the percentage of full-time faculty, to incorporate CAI through the addition of several computer labs, to expand the services of the Writing Center and increase the salaries of its tutors, to promote the growth and prestige of its

creative writing program, and to ensure that new facilities are constructed to replace its aging and obsolete classrooms.

English-Reading

The reading program must obtain the technology and facilities necessary to provide the best reading instruction possible for the growing numbers of El Camino College students requiring developmental assistance in reading skills. This goal can be realized only with additional CAI labs with modern computer equipment and state-of-the-art reading software. Furthermore, the centralization and modernization of reading facilities/ classrooms are necessary to replace the aging classrooms currently being used. Additional full-time faculty and CAI laboratory support will be needed as the program expands.

English As a Second Language

The principal short-term goal of the ESL Department is to identify and obtain approval for a placement instrument that is reliable and valid, thereby ending several years of less than satisfactory assessment for ESL students. Of related concern is the slight decline in ESL enrollments, due in part to potential ESL students electing to take courses in the regular English program. Improved counseling and dissemination of placement information, it is hoped, will address some of the concerns. The department, of course, will continue to develop or modify curriculum as students' needs require, though satisfaction with the current curriculum is fairly unanimous with the faculty. Among the faculty, there is also some sentiment toward the development of a dedicated, state-of-the-art CAI lab with software programs designed to assist non-native speakers in their acquisition of language skills, written and oral.

Environmental Horticulture

The most vital future goals are:

1. Fully automated greenhouse with potting room and growing yard.
2. Computers and classroom with a horticulture instructor with computer expertise who has a degree in Environmental Horticulture.

Environmental Technology

The Environmental Technology program meets a critical need in the local business and industrial community. A century of environmental abuse and neglect is now better understood. Every employer in the nation must reckon with numerous environmental regulations and regulatory agencies. To comply with regulations, an informed workforce is needed. The El Camino Environmental Technology was designed to inform the business community about environmental regulations and prepare technicians to assist businesses in meeting their prevention and redemption challenges. The program is well positioned for growth and with adequate support in staff equipment and facilities will sustain strong enrollments and bring recognition to the College.

EOP&S/CARE

EOP&S/CARE will continue to have an increasing demand for services. In order to meet this demand for students who are economically, socially, and culturally disadvantaged, the following needs must be addressed:

1. Extend EOP&S/CARE facilities to open more space for tutoring and to accommodate new staff members.

2. New Financial Aid Liaison to identify and account for EOP&S funds given directly to students.
3. An Educational Advisor to supervise peer advisors and tutors in their retention activities.
4. An Assistant Outreach Recruiter so that early identification and intervention can be more effectively addressed in 9th-12th grades at target high schools.
5. Data Entry staff to maintain program accountability reports on eligible students.
6. A certificated counselor to maintain student to counselor ratio of 350-400 to 1.

Increase book service funds to make books available to all qualified students who are participating in the recommended retention activities and progressing successfully toward their goals.

Provide more emphasis on the transfer process via the transfer newsletter and increase the number of disadvantaged students attending field trips to universities in southern and northern California.

Address the parenting issues as it relates to the needs of the disadvantaged single parent. Including childcare, transportation, parenting, and balancing work and school.

Exercise Science/Fitness Training

The promotion of individual health, reduction of disease risk, and enhancement of the quality of life for every member of the El Camino College community is the major goal of our program. To achieve this goal we propose the following:

1. Mandate PE 260 or PE 280 as a required course for all El Camino College students. This goal can be easily justified on the basis of individual need and life-long value to the student. The "body of knowledge" that is transmitted through these courses provides the means by which people will increase their appreciation for the value of and need for participation in health promotion programs.
2. Increase course offerings, staffing, and facilities to make health promotion, fitness, and weight management more accessible and enjoyable for more people, particularly special populations (seniors, obese, disabled, ethnic groups at risk, etc.)
3. Enhance course work opportunities for future health care providers (Fitness Instructors, Personal Trainers, Respiratory Therapists, Nurses, etc) by further developing courses of instruction, internships, and continuing education.
4. Increase use of the Fitness Training Center by ALL students enrolled in PE classes and, space permitting, to the campus population at large.

Facilities Planning & Services-Auto Shop

The goal of the Auto Shop is to be effective in providing quality service to the campus. There has been significant growth in both the usage of vehicles and equipment and the need for specialized knowledge and tools to service them. Both of these trends are expected to continue. The Auto Shop currently is staffed with one person who is not sufficient to meet the demands placed upon it. The results are delays to the equipment vehicle user and unperformed maintenance that shortens the longevity of College assets and could allow a hazardous condition to develop.

To satisfactorily address the shortfall in available resources to meet the current demand for services increased staffing and training will be required.

Facilities Planning & Services-Lock Shop

The mission of the Lock Shop is to maintain the College's lock and key systems in a manner that promotes campus security.

There are a number of significant deficiencies in the current lock and key systems. A significant percentage of the College's lock system is at or near the end of its useful life. There is an inherent design quality that allows the lock system to be compromised. Past key control policies and decisions have allowed significant keying capacity to be lost. Implementation of a new lock and key systems should be started.

Modifications and replacements need to be made to existing door hardware to comply with ADA access requirements.

Computer-based key record and control is the only acceptable means of managing the lock and key systems.

Facilities Planning & Services-Carpentry/Paint Shop

The mission of the Carpentry/Paint Shop is to provide maintenance, repair and construction services which meet the needs of the College. This includes providing a clean, safe, efficient and attractive environment for students, faculty, staff and the community.

A constant need of the College is to modify facilities to meet the changing demands of its instructional and support units. As facilities are used, repair and maintenance needs are generated; this need is compounded as buildings increase in age. Maintaining the watertight integrity of roofing is always an on-going activity. The Carpentry/Paint Shop is responsible for meeting these needs.

Meeting these needs can only realistically be accomplished with increased staff and funding.

Facilities Planning & Services-Electrical Shop

The mission of the Electrical Shop is to provide a level of quality service to match the needs of the College. The systems the Electrical Shop is responsible for are critical to the mission of the College. A large percentage of these systems are obsolete and near the end of their useful life. To replace these systems will be both costly and disruptive to system users if not planned and coordinated well.

Additional resources will be necessary to replace and maintain the systems. How well this need is met will have significant impact on College operations.

Facilities Planning & Services-HVAC/Plumbing Shop

The mission of the HVAC/Plumbing Shop is to provide reliable and efficient heating, ventilation and air conditioning, and utility services for building users.

The greatest task this Shop is faced with is the need to modernize systems while continuing to effectively operate existing systems during the transition period

Resources for the system replacement must be secured and the transition implemented under the condition of increasing user expectations of comfort and environmental quality.

Through a combination of increased efficiency and increased resources, a balance must be attained between maintenance needs and resources available to meet those needs. The use of computer-based technologies holds the greatest promise for attaining increases in efficiency.

Facility Planning & Services-Grounds

The increase in new programs at the College, along with the impact of an aging campus and the requirements for providing new technology to the students, will affect the Grounds department in the following areas.

To maintain and upgrade the services provided by the Grounds department in keeping the landscaped grounds in a clean and safe condition will require updated training, equipment and knowledge of horticulture, equipment operation and practices. This will provide the least impact on environmental issues as well as providing the Grounds staff with all the tools required for improving their function as providers of services with limited supervision. The training, equipment and recognition will promote good morale, discipline and will improve the overall condition and appearance of the campus.

The Assistant Director of Facilities will be available for training people in the Grounds areas of the College and for the latest information to improve and update their knowledge so they can improve their goal of providing the highest level service for grounds and landscaped campus which they can take pride in.

Facilities Planning & Services-Operations

The increase in new programs at the College, along with the impact of an aging campus and the requirements for providing new technology to the students will affect Operations in the following areas.

The impact on the services provided by the Operations department to keep the facilities in a clean and safe condition will require updated training, equipment and knowledge of housekeeping, equipment operation and practices. This will provide the least impact on environmental issues as well as providing the Operations staff with all the tools required improving their function as providers of services with limited supervision. The training, equipment, and recognition will help promote improved morale, discipline, and will improve the overall condition and appearance of the campus.

The Assistant Director of Facilities will be available to coordinate the training of staff in the housekeeping areas for the latest information to improve and update their knowledge so they can improve their goal of providing the highest level service.

Facilities Planning & Services Division

The mission of the Facilities Planning and Services Division is to provide and maintain a safe, functional, clean and attractive physical environment for the users of the El Camino College campus. In order to fulfill this mission it will be necessary to increase the level of support given

by this Division to the College in the following areas: facilities planning, modifications, construction, maintenance, communications and interaction with campus users.

The College's building and infrastructure systems are increasing both in number and complexity, also, the uses of the facilities are increasingly varied and many times require a higher level of environmental control than that which the building was designed. This equates to an increased need for facilities services. The current budget and staffing level allocated to provide facilities services have been based upon historical rollover budgeting. The trend of increasing needs and demands coupled with static funding has created a shortfall in the ability to address the needs of the facilities or the desires of facilities users. The future success of the Facilities Planning and Services Division will largely be determined by its ability to clearly articulate the needs of the facilities and users while securing adequate funding to meet those needs.

Fashion Design

The Fashion Design program is meeting a critical need in the Los Angeles area by preparing students with job-ready skills in the technical and business aspect of the apparel industry. The program facility needs a major facelift. Private industry spends significant funds on facilities to make a lasting impression on their clients. El Camino has a quality program but very little is spent on our appearance. We look like a low rent district. The program is well positioned for growth, but needs support in staffing, technical support and equipment upgrades and support from area businesses.

Financial Aid Office

The three single most important goals for the financial aid profession include the ability to acquire, train and use advanced communication and financial aid processing systems, the ability to provide services to students on a one-to-one basis for advising and counseling and the ability to effectively manage and process the future work load increases of financial aid applicants. If the financial aid staff is to keep pace with the changes in federal and state government, then it must acquire the necessary technology such as high-end computers, optical imaging technology with advanced storage and retrieval methods, electronic e-mail systems for students and staff, web site applications and advanced financial aid processing systems and interfaces. These technology applications require the need for continuous training of students and staff. Training must occur with students and staff and in the community if they are to be included in college activities.

Secondly, as the nation progresses toward the full implementation of Welfare Reform, more students are requiring one-to-one advising and counseling from the financial aid staff. Given that the average welfare recipient has a tenth grade education, a lot of guidance from whatever sources will be needed. Moreover, a large number of students are immigrants and English is not their primary language and more bi-lingual staff is needed to bridge the communication gap. It becomes evident that more full-time permanent staff will be needed to meet the increase in one-to-one interaction with financial aid students.

And finally, it is certain over the next decade that the number of financial aid applicants will increase. As the baby boom generation moves toward retirement, their children will attend college and require more financial aid resources. Children of retired parents may not have enough financial resources to complete their college education. As welfare recipients migrate from

receiving public assistance to work and school, financial aid offices will become inundated with more eligible aid applicants and fewer institutional resources to manage this demand. As the financial aid profession moves in all of these directions, it will be necessary to have efficient financial aid processing systems, excellent methods of communicating with students and families and positive pro-active strategies for handling potential processing problems.

Fire and Emergency Technology

The El Camino Fire Academy is conducted at the Inglewood Training Center. It is anticipated that the Los Angeles County Fire Department will contract to provide fire protection in the city, necessitating finding a new home for the academy. Construction of a modern, state-of-the-art training facility is the most important future-oriented goal of the program.

There are a number of curricular issues that will require considerable efforts to accomplish. To remain competitive with other local academies, the hours of instruction and certificates offered (high angle, confined space, swift water, vehicle extrication, etc.) in the basic fire academy needs to be addressed. The need for computer aided instruction and distance education also must be addressed to meet the needs of the fire protection service and local agencies. Additional curriculum is also needed for firefighters that are required to participate in training and manipulative drill.

Foreign Language

Of critical concern to the foreign language faculty in recent years has been the inadequate state of ventilation and temperature control in the Communications Building, which houses most of the foreign language classes. The shift of the College to an early start calendar and the scheduling of longer language classes have produced a situation in which excessive heat during warmer months of the year has created intolerable conditions for faculty and students. This situation directly impacts the learning process. Providing the mechanical and electrical support for air conditioning is a priority. In addition, because of the proven efficacy of CAI in the language acquisition process, continued improvement of the CAI lab (hardware, software, training, technical support, etc.) is essential in order to provide students with the best foreign language learning situation possible. Finally, foreign language curriculum will be developed and/or modified to meet student needs, both community-centered and global, as such needs are identified. Specific suggestions related to the preceding may be found in other sections of the planning guide.

Grants Office

The most important goals for the El Camino College Grants Office are (1) increasing the number of proposals for external funding submitted annually, and (2) improving the funding rate for grant applications. Accomplishing these goals will involve building adequate staff to serve the needs/goals of the institution effectively and efficiently. It will require focusing more efforts and resources on building relationships with funding agencies; informing and involving the College faculty and staff; developing quality proposals that support institutional goals; and forming effective partnerships with other educational institutions, private industry and community organizations.

Health Education & First Aid

If you ask the philosophical question of what knowledge is of most worth, the answer is still "self-preservation". The short and long-term goals of the College and curriculum are to educate all students and community members in the importance of good health practices and to provide an awareness of new trends and personal knowledge. The overall objective is to have a disease free nation and world and to enhance the healthful living of everyone.

Health Sciences & Athletics
(No Summary Provided)

History
The History Department must be committed to achieving as much as possible an integration of research and teaching so as to offer our students a first-rate College-level course enabling them to compete in any academic environment. Our goal as a department should also be to attract fully certified historians with Ph.Ds who are committed to better teaching through ongoing research.

Honors Transfer Program
1. The Honors Transfer Program (HTP) should be expanded to offer evening courses. Ideally, a minimum of two honors courses should be offered in the evening each semester to allow students to complete the program in three semesters.
2. HTP office computer system should be updated to allow for Windows 97, Internet access and desktop publishing.
3. Increase the honors transfer agreements offered to the students to include other institutions, including CSULB and LMU.
4. Develop a web page for the Honors Transfer Program that will be linked to ECC and the Honors Transfer Council.
5. Establish a program assistant/secretary position with much better compensation and benefits. This would allow the HTP office to be open on a more regular basis during the academic school year and in the summer.

Human Development
The most vital, fixture-oriented goals for the Human Development Department are as follows:
1. To create a 1 unit or 2 unit Orientation to College course that would be provided to all first semester College students.
2. To create Human Development sections which would address the needs and issues of more special populations.
3. To be provided more financial resources to hire faculty, purchase equipment and attend relevant conferences.
4. To have more flexible course offerings which would include availability of classes during the morning, afternoon and evening hours.
5. To have a psychologist and a social worker available to assist students.
6. To have faculty campus-wide cognizant of the Human Development Program.

Human Resources Office
It is anticipated that the Human Resources Office will be fully staffed in July 1998. This will greatly assist the department in becoming more active than it has been in moving personnel

processes, practices, and overall interaction with other divisions towards improved communication and service. Staff in Human Resources tends to operate reactively. Much of that is a result of having to respond to preventable crises. A conscientious effort will lead the Human Resources Office to become more pro-active in identifying and rectifying personnel issues.

This master planning process will offer staff important guidelines to become well-rounded, full-serviced human resources professionals. By operating more effectively and efficiently, the Human Resources Office will accomplish what has been an overall goal for many years--improved service to the divisions.

Industry and Technology Division

The Industry and Technology Division has a rich history of preparing students for the world of work. At one time, most technical programs in the division were quite advanced and frequently introduced technology to the industry they served. However, many lean years have placed our technical programs in jeopardy. Today, many of our labs are obsolete and instructional equipment is several generations behind what is used in industry. To reverse this trend, a concerted effort is needed to maximize funding and shift dependence to other sources of revenue. An investment of time and commitment from the faculty and administration is needed to build relationships with business and industry that will lead to partnerships, collaboration and a source of current technology. Business and industry in the South Bay needs us, but may not realize that we need them too. El Camino delivered the best once before and can deliver again if we work together.

Information Systems & Services

Expansion of users and technologies supported: Support a "different" type of user is critical to the continued success of the division. Traditionally we have considered Student Services and Administrative Services as our primary users. This definition has changed to include all members of the College community. These new users require computing resources at the "desk top" and access to off campus facilities and institutions. They demand high levels of support and consistent easy to use interfaces. Effective support will require the movement from a centralized mainframe environment to local systems distributed throughout the campus.

Easy access to off-campus, district, departmental and local information: We need to provide every client with timely and friendly access to information. Computer support must no longer be restricted to "enterprise data" but be expanded to include, any and all accesses necessary for quality operations. Access to Federal government, state facilities, educational institutions and private organizations must be as easy as looking at student information on a mainframe terminal. Provisions should also be made to support traveling employees and home offices.

Infrastructure: Upgrade the District to a fiber backbone connecting all major buildings. Continue the implementation of a wide area network and expand that effort to connect every office, currently occupied or not, on campus. Long-range objective is to have an administrative LAN, connected to the wide area network, servicing each floor of every major building.

Instructional Resources

(No Summary Provided)

Intercollegiate Athletics

Staffing also remains an important priority. Facilities and equipment maintenance and upgrades are critical for the short and long run. For the future integrity and viability of all the sports programs, it is important that head coaches be replaced with full-time faculty as they retire from coaching positions. The ideal program is to have a full-time head coach in each sport for both men and women to provide the most effective instruction and program continuity. Currently, of the 18 full-time faculty, only 10 instructors also coach. Six full-time instructors have retired and none were replaced.

Interior Design

The Interior Design program has excellent growth potential. The program should be integrated with the architecture and construction technology programs to enable El Camino to offer a complete array of programs for the residential and commercial construction industry. There are excellent employment opportunities and an opportunity to join with other community colleges in the existing Interior Design Consortium.

It is the goal of the faculty to complete the curriculum revision process and comply with the consortium-standardized model. During the next five years, all of the course offerings will be scheduled and offered continuously and consistently so students will know when they can get their courses. A carefully planned advertisement and marketing plan for the program will need to be carried out. The student club will need to be revived also. Part-time people (at least 5 or 6) will need to be hired and used to teach various courses in their specialty. That way the students will have the opportunity to learn from a variety of individuals in the field, with a variety of experiences and backgrounds and specialties.

Job Placement Center

The Job Placement Center will continue to have an increasing demand for services. In order to accommodate these demands, the Placement Center must have additional staffing and physical space to supplement an existing staff of six. Along with staffing and space, the Placement Center must have a computerized employment referral lab so as to service the increasing number of students and alumni in a timely and effective manner.

A general updating of material and equipment in the Placement Center is needed so that our clients may take advantage of the Internet and other employment opportunities that will be developed for the twenty-first century.

Journalism

1. It is important the department be able to accommodate an electronic classroom, newsroom, and an electronic darkroom, and to establish computer-assisted reporting units utilizing the Internet, something we do not have access to right now. This means the facilities need to be expanded. We have taken photographs, done diagrams, and produced student numbers, but are still housed in one room and an office.
2. The student publication budget is stagnant and we have accommodated changes as best we can. There needs to be an understanding of the changes in journalism instruction and in addition,

an adjustment of the budget for students' conferences and in-service, along with support supplies and management of equipment programs and problems.

3. It is important to allow specialized courses, perhaps intercessions, to accommodate the many areas of journalism now moving toward 2000: digitized photography, Web newspapers, corporate Web pages, pagination, graphics, photo illustration, and to have space to teach these units. In other words, we hope the College will consider a more flexible curriculum across the board, in which we can participate.

Law

The most vital and future oriented goals for our discipline are:

1. Attractive, Clean, Safe Instructional Facilities. It is recommended that the College build a new business education building to accommodate the mid-career adult students. At a minimum the College must remodel and provide facilities that are suitable for adult instruction. The new classrooms must provide multimedia technological displays, enough electrical outlets for students to plug in their own notebook computers and other technology which mid-career adults have come to expect and depend upon for their learning. The present building with water leaks, bugs, mildew and toxic appearance is not only unhealthy, but discourages attendance by demanding adult students, who have other College options available to them.
2. Flexible Academic Calendar. A flexible academic calendar providing courses different from the traditional 18 week semester, such as providing a course within one month (meetings twice a week for four weeks, one Saturday from 9:00 a.m. to 5:00 p.m. and the last Saturday from 8:00 a.m. to 2:00 p.m.). This will allow students who have family obligations and career obligations to meet and succeed in one course and then move to another. Such flexibility in time management is the most attractive option the department can offer the mid-career adults.
3. Easier Enrollment. Class registration by fax, telephone, credit card, and World Wide Web will avoid the difficulty of long lines at registration and at the bookstore. For a charge, students can have the books mailed to them or their books can be waiting for them for pickup on the first day of class.
4. Convenient and Safe Parking. Priority parking including reserved parking is part of the culture of Southern California. The public in Southern California is aware that an automobile is a necessity and parking fees for better parking are a part of that expense.
5. College Environment and Classrooms. An attractive, germ free, clean environment is necessary if the College is going to attract mid-career individuals who work in an attractive office environment in the local service industries. Small, cramped desks and dirty, noisy classrooms with filthy restrooms, poor food service, and unclean and unsafe vending areas do not appeal nor present an image of a professional College business school. These items must be remedied as soon as possible.
6. Offsite Facilities. Provide courses at off-site facilities close to the intersection of the 405 and 110 freeways in high-rise office buildings that provide night security paid parking, vending facilities and clean restrooms, and the added attraction of ease of access.
7. Preparation for Law School. Students with less verbal ability and verbal skills desiring to go to law school will need more training in writing and in legal specific areas to overcome their remedial learning handicaps. The legal curriculum will become much more in demand and therefore the department will develop and provide a major in legal studies which would give students the opportunity to develop verbal and analytical skills needed to succeed as law students and attorneys.

8. Major in Legal Studies. The major would include: Law 4, Law 5, Law 6, a new course, Current Legal Issues; and additional courses, Art of Negotiation and Mediation, The Ethics in Law, Business and Management, Introduction to Law and Legal Analysis, Litigation and Civil Procedure, Introduction to the Court System and Judicial Process, and Legal Research and Writing. This would assist and prepare students from traditionally disadvantaged backgrounds for entry into law school. The program could be offered in less than two semesters and might appeal to those College educated students who wish to prepare prior to entry to law school.
9. Legal Databases. As computer literacy grows, the incorporation of the Internet and legal databases into course instruction becomes more in demand and eventually legal specific instruction on the use of the Internet in a legal specific area should be offered.

Learning Resources Center

1. Provide higher quality, more comprehensive services to larger numbers of students in larger number of disciplines.
2. Increase amount and effectiveness/quality of communication with ECC community.
3. Increase coordination with academic curricula.
4. Continue to update media materials collections.
5. Provide increased technical orientation/training to students and faculty.
6. Increase full-time and part-time staff to support growth in services.
7. Redefine part-time staff responsibilities to handle growth.
8. Continue to identify alternative funding sources to support LRC.

Library

The library will need increased funding in order to provide the books, periodicals, and digitized resources required by the College's students and faculty.

Life Sciences, Natural Science Division

Most importantly, ECC must attract and employ at least three full-time, enthusiastic and talented teachers to replace the most experienced faculty members of the biology staff who are likely to retire in the next few years.

We shall need to equip the proposed new science building with a state-of-the-art electronics system for students and staff to improve access to information and communication and the ever-increasing learning and review programs of educational value.

In order to ensure access to a liberal education, we shall need to offer a variety of courses and develop new ones. For example, introductory courses in microbiology, human biology, and fundamentals of genetics might prove valuable, especially if they incorporate review and enhancement of the "Three R's". A wide variety of courses from which to choose will help to make ECC students knowledgeable, competitive as transferees and desirable as employable graduates.

Machine Tool Technology

California is facing new economic challenges and must develop new jobs and industries to replace a downsized defense industry. Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), and Computer Aided Numerical Control (CNC) are essential components in today's manufacturing workplace. El Camino was once a leader in introducing new technologies to local

industry. Years of scarce funding and the rapid pace of technology have relegated our role to that of follower. We must continue to make progress in acquiring the machines and processes used in industry. This will require funding and a concerted effort to partner and collaborate with the industry we serve.

Mathematical Sciences Division

Mathematical Sciences Division goals are:

1. To have a full-time tutoring coordinator 40 hours a week for 12 months a year to coordinate the Math 100 tutors and the 1,700 students a semester who presently use the one-on-one tutoring program.
2. To have a full-time Computer Lab manager to oversee the Math/Science Multimedia Computer Lab and supervise the lab employees.
3. To triple the size of the tutoring space. Currently, we are using room MCS 106 and the size of the room limits the number of math students who can use the tutoring services.
4. To eliminate the large (250) lecture hall sections to 125 or smaller and find additional classroom space.
5. To increase the computer lab from 40 to 100 computers within the next four years for the use of the science and the math departments.
6. To make curriculum changes so that there are pre-requisites for Math PA and Math A.
7. To make curriculum changes to increase the hours in all algebra courses.
8. To make curriculum changes in the Calculus courses so that every student becomes exposed to some form of Computer calculus program like Derive or Mathematica.
9. To have departmental release time for faculty to innovate and experiment with new curriculum approaches.
10. To increase the percentage of full-time instructors.

Media Services

With the opening of the new Library Media Technology Center (LMTC) in August 1998, the campus community has higher expectations of the department for meeting increasing technology needs. Training is critical for staff and increased budgets for the following are needed:

1. Addition of technical staff.
2. Purchase of supplies and parts to meet increased maintenance of new equipment.
3. Purchase of new equipment to expand the capabilities of the technology being installed in the LMTC.

Music

The music department enjoys an outstanding traditional music program. This program needs to be maintained and strengthened. There is a significant additional need to develop and expand the electronic music/recording studio program to meet current requirements for musical training, the multiplicity of skills required by today's musician, and to meet our desire for growth. Technology needs to be integrated throughout the curriculum and not appear only as a stand-alone program. This will require additional faculty expertise to develop the technological curriculum. Additional faculty is needed to meet the demands of the instrumental program that have gone unmet for many years.

In addition to the development of the technology curriculum, the current curriculum should be revised and expanded to include a worldwide perspective and multi-cultural content to reflect the broader focus on cultural diversity in our community and state, and to meet revised transfer requirements. The curriculum will also need to include pedagogy classes to meet the musical training requirements for an anticipated increased demand for skilled music teachers in the K-12 schools.

A budgetary plan will be required to meet the on-going high costs of systematically acquiring new equipment and musical instruments as well as replacing aging equipment and instruments.

The development of a commercial music program will help to meet the need to develop short-term courses and certification of employment skills as indicated by the external environmental trend statements.

The current television series for music appreciation needs to be updated. An on-line version of music appreciation will be offered in fall 1998. Further development of distance education will be required to meet the needs of those students who prefer this mode of delivery.

Nursing

1. Implement a Web Page for Nursing Department.
2. Develop programs to educate a variety of healthcare professionals.
3. Implement the newest educational technology for student learning:
   a) Computers at each bedside in skills lab networked with simulated training program(s).
   2) Upgrade multi-media nursing lab to 10 stations.
   3) Install computers in faculty offices with the capability of receiving e-mail and Internet to support on-line courses.
   4) Implement a bar code scanning system for the nursing skills lab.
4. Refine data processes to obtain data from the employment sectors for nursing graduates.
5. Develop collaborative educational partnerships with BSN--MSN Programs to strengthen career ladder opportunities in nursing.
6. Provide increased training for nursing faculty in the implementation of new technology for educating nurses.
7. Develop distance learning courses for nursing.
8. Develop a Health Sciences Division/Complex.

Nutrition and Foods

Nutrition and Foods courses are meeting a need for students as a general education and transfer requirement. Additional courses in Herbal Nutrition, Food Safety and Technology and World Hunger should be added in the next five years. Nutrition and Foods courses will compliment the Culinary Arts program for students preparing for careers in the food and hospitality industry.

Office Administration

Our most vital, future-oriented goals are to:

1. Assure that faculty and staff is replaced as they retire because without adequate faculty and staff none of our goals can be accomplished.

2. Upgrade and expand facilities, equipment, and software to accommodate use of updated electronic communications so that we have the potential to meet several of the departments goals outlined in the previous section.
3. Collaborate with other departments in the Business Division in internationalizing the curriculum (as well as in the others areas outlined under Department Goals) to better provide our students with the means to survive in this rapidly changing world.

Physical Education-Co-Educational Activities

1. The discipline of physical education is going through a transition from learning skills to Fitness and Health oriented personal goals.
2. The new curriculum will all be health and fitness assessments (such as cardiovascular, strength, flexibility, endurance, cardiopulmonary, body composition, etc.). Students will be measured (assessed) and personal profiles established and used to measure progress in physical training and overall health knowledge of each student.
3. Activity courses to develop skills such as tennis will become non-credit; fee based Recreation Extension classes.
4. The two-unit requirement for the A.A. degree will change from activity to exercise physiology, nutrition and fitness evaluation type classes.

Philosophy

1. While maintaining roots in the traditional approaches to teaching and learning Philosophy (as demanded by the discipline itself and, to some extent, by matriculation obligations), we would like to address the learning needs of students with increasingly diverse levels of preparation for such work. Included in our plans are:
   1) Professional development of faculty interested in exploring technological aids to means of instruction.
   2) Development of coherent program of course options, including traditional lecture format, traditional lecture format integrated with substantial technological and other alternative modes of instruction, and, where appropriate and needed, on-line delivery of some courses.
2. To help address these diverse needs outside the context of philosophy instruction and learning, we would like to increase our cooperation and/or communication with student services. Instructional aides such as philosophy/liberal arts career workshops, study and skills workshops and tutorial services, would be of great help to the philosophy student.

Photography

The current curriculum serves the commercial photography student very well as does the photography equipment, facilities, and laboratory. The current equipment is showing age and must be replaced. A/V display equipment is inadequate for the existing classrooms.

Digital technology is making a significant presence in the field of photography resulting in an immediate need for computers, digital cameras and associated peripherals. This will also require some revisions and additions to the curriculum to respond to this changing technology.

The curriculum will also expand to include a fine arts focus on the use of photography.

Physics

1. By reducing part-time to full-time ratio, students will have more available office hours.
2. Modernize the Physics labs, including but not limited to incorporating computer technology whenever real time data acquisition is required.
3. To increase student retention, have on-site tutoring available.
4. Renovate physics classrooms, with regard to layout, including but not limited to wiring of student tables for computer networking, multimedia, analog and digital telemetry, with capabilities for future upgrade, i.e. scalability to allow the department to take advantage of future emergent technologies.

Police

Based on goals, trends, and assumptions it is clear that police services will be needed and have to expand. To prepare to meet the increase in demands, the District needs to immediately construct a new police facility. The Police Department needs to continue to employ highly qualified, trained and motivated personnel. The Department will need to provide additional new personnel and purchase new equipment and other means necessary to actualize the goals that have been identified. In order to identify a wider variety of community concerns and to engage their cooperative efforts to resolve areas of mutual concern, the Department will need to expand the current C.O.P.S. program and stay ready to employ other methods as they develop. The department will need to train personnel who are specialist and are qualified to deal with new and complex criminal activity in the areas of technology, fraud, community-oriented policing

Political Science

Classroom assigned to Political Science faculty need to be upgraded and modernized to include VCR and TV monitors, adequate lighting and ventilation as well as noise-absorbing floor coverings and functional student desks.

All department faculty should have access to the Internet and PCs installed in every office.

The College should provide a mechanism to support the needs of students who bring their children to campus with them – childcare facility at nominal or no cost to them.

Psychology

The Psychology Department's most vital, future-oriented goals are the following:

1. To reorganize the Psychology Department so that there are 10 full-time faculty members, one of whom will serve as a faculty coordinator, two half-time tutors, and two full-time clerks. The faculty coordinator will be especially important to the future of the department, as she/he will specifically handle the needs of the department.
2. To establish a planning committee whose purpose is to plan the department's present and future activities and to represent the department's interests to the administration, Academic Senate, transfer institutions, and Counseling Services.
3. To form an institute to engage in ongoing research relevant to the teaching of psychology at the lower division level. This activity will result in published articles on the psychology student population and the assessment of their motivation, skills, abilities, and learning styles.

Two additional results of this institute will be the establishment of a psychology testing inventory and the provision of storage for this instrument.

4. To develop a psychology computer classroom/laboratory where scientific experiments, statistical analyses, tutoring, Internet activities, and other activities can be undertaken. The classroom/laboratory will include a multimedia teaching station so various psychology courses can be taught using innovative computer technology and 50 multimedia computers for student use.

Public Information

The primary goal of the Public Information Office is to produce accurate material in an attractive and easily used manner. This material may include news releases, advertising, brochures, programs and fliers. It includes exams, tests, course outlines. It includes schedules, catalogs, one-page sheets and 300-page documents. All material will be produced on time. Deadlines will be met. No exceptions allowed.

Therefore, equipment must be maintained and replaced as needed. The master planning process must realize that for a faculty member to give a test, the photocopying equipment in the Copy Center must be operated and maintained by trained personnel. For material to be produced, we must have the equipment for production. For us to print catalogs in the future, we must meet publication standards of printers awarded the bid.

For us to accomplish high school recruiting in a competitive environment, we must offer on-line capabilities for assessment. We must work more closely with high school counselors.

Radiologic Technology

The "Specific Goals" for the Radiologic Technology Program are:

1. Develop a course of instruction that would prepare the student/radiologic technologist to perform venipuncture.
2. Implement a tutorial/continuing education program utilizing the energized and computer lab.
3. With the ESL Department, develop means of improving the clinical performance of those program students who are not succeeding as a result communicating difficulties.

Real Estate

1. Provide each full-time faculty with equipment for computer presentation of materials for power point with projector.
2. Real Estate Department coordinator should need an office with floor-to-ceiling bookcases to reference materials, with modem connection to computer to link to students, industry, resources, educators, multiple listing service, etc.
3. Newsletter to industry, prior students and current students.
4. Purchase list, by zip code for El Camino District, from state licensing agencies to have database of direct mail real estate classes, newsletter, etc.

Respiratory Care

1. Continue to maintain and improve the CAI/CAT simulation and tutoring lab through continued funding and support for equipment, software and staff - specifically more computers (and related supplies), manikins, simulation programs and staff to accomplish the above.
2. Establish a home page for the Respiratory Care program on our network and the internet to facilitate continuing education and support the students progressing through the program - specifically the hardware and software as well as the staff support to create and maintain a cutting edge home page for the program that would allow for applications and information as well as continuing and program education to take place on our network and the internet.
3. Split the current entry/advanced - level program into two separate programs, one for entry, which would be campus-based, and one for the advanced level which would be primarily internet/network based - specifically modify and move through the agencies on campus and off that would have to approve of all the changes made to the entry and advanced-level programs. Need campus support and assistance in designing and moving the changes through the appropriate groups and agencies.

Sign Language/Interpreter Training

Our most vital goal is to expand the breadth and scope of our curriculum and to add additional courses to our current offerings. To do this, we must hire more faculty and staff. We recommend a full time position, two additional part-time staff members, and a full-time lab assistant. Offering during the day should be increased and a permanent facility designated as a Sign Language Lab.

Small Business Development Center

The California SBDC program is administered through the CA Trade and Commerce Agency but is a part of the national ASBDC. Policies are set at those levels.

Sociology

1. Additional full-time faculty member with the ability to address the needs of a diverse student population, particularly the Hispanic cultural group.
2. The training and incorporation of technology-based instruction for Sociology unit faculty.
3. The development of curriculum aimed at the occupational needs of the student community.
4. Outreach to the business community in order to service that segment's educational needs.

Special Resource Center

1. To improve student success by providing staffing, curriculum and diverse resources to meet the needs of students with disabilities.
2. To continue to evaluate the needs of students with disabilities, and to provide the most current access to assistive technologies and facilities within the institution, by providing a responsive and comprehensive service plan for each participate.
3. To be pro-active in promoting institutional responsibility in meeting the needs of students with disabilities.
4. To explore and implement alternative resources, services, and programs, to compensate for declining traditional funding sources.

Speech Communication

Enrollments remain steady and grow in proportion to the growth of the College enrollment. SCOM 1, 3 and 4 continue to be required by the CSU system and other Colleges and universities. In addition, workplace emphasis on collaborative decision-making focuses the student and community on Group Discussion.

In addition, there is a strong need in the community and workplace to develop skills in Interpersonal Communication, which include conflict resolution and verbal/non-verbal communication. Sensitivity to ethnic and cultural diversity focuses a need for Inter-cultural Communication in the courses offered.

All of these courses need to be updated regularly to reflect current communication theory, practice, and methodology.

Equipment replacements and acquisitions have not kept pace with needs in the classroom. The development of a speaker's laboratory has been successful at other Colleges and would be worthwhile at El Camino.

The Forensics program continues to develop championship-caliber teams with the focus now on Parliamentary Debate.

Staff and Student Diversity

The most vital, future-oriented goals established for the Office of Staff and Student Diversity in order of priority are listed below.

1. To comply with Proposition 209 and to begin reviewing locally developed programs; the department will keep abreast of Chancellor's Office advisories, court decisions and consult with the Chancellor's Office and District counsel.
2. The department will increase its offerings of training-diversity, cross cultural communications and sexual harassment to enhance employees' skill in communicating, working with and servicing those with differences.
3. To enhance understanding and communicate better across cultures, the department will publish a departmental newsletter.
4. To improve the presentation, quality and coordination of campus diversity events and activities of students, the department will assume a more responsible role in planning and coordination of these events.
5. The department will institute an on-going internship program for graduate students aspiring to teach in community Colleges in an effort to increase the diversity of faculty members.

Staff Development

Providing a comprehensive technology training and support agenda for faculty, management and staff. Adequate training, and in some instances retraining of faculty and staff, to meet the rapid changes that technology is bringing to their working environment is a critical issues for staff development. As is true with the general workforce, ECC staff must be continually upgrading their skills to keep pace with technology. Because of the broad applications of technology and learning,

faculty first need to develop an awareness of what is available and appropriate for assisting them in the classroom. And, secondly acquire the training that will enable them to use the technologies.

Coordination of campus efforts with regards to the implementation of technology and the training and support components. Currently, these efforts are happening in a somewhat disjoined fashion. There are many areas of funding and it will be critical to coordinate these efforts.

Staffing for the office needs to be addressed. There is a tremendous amount of program coordination which has in the past been done with student help, casual hourly and non-cert temps, this does not provide an environment for consistency of recording keeping and accounting both of which are essential components for state funding.

Student Development

The future of the Student Development program is dependent on the influx of new and returning students that have an interest in their personal and educational growth. There will be many new types of students that will enter the College because of the changes in the federal regulations for financial aid and CalWORKs to name a few. We must position ourselves to accommodate these new entrants. Our goal is to achieve a maximum level of student involvement in the governance of the College and offer students a variety of enriching experiences that will enhance their development as citizens and future contributors to society.

Student Health Services

Student Health Services must redefine its structure. A supervisory position must be established, taking one of the clinical staff out of patient care to manage both the medical and psychological programs. To accommodate students traveling distances to school, balancing work/school, low-income students without insurance and single parent students, Student Health Services must provide comprehensive medical and psychological services and low cost medications. The center should be open year-round to provide continuity of care.

Funding sources for Student Health Services must be explored and augmented by the State and District at the least reimbursement must be given for students with exemptions.

Student Services Division

The Student Services Division will work toward improving processes, services and staff preparation to ensure efficient, effective, timely and relevant services for students, as well as a range of activities to create a full collegiate ambiance and experience for them. The Division will work to develop and enhance its technological base to provide staff with the tools to be adaptable and responsive to student needs. The Division will continue to seek qualified, committed staff, faculty and managers who will maintain as their primary goal the success of students in their educational pursuits. Funding and staff levels appropriate to meet student needs and intensity of demand will be sought. Collaborative efforts with other College units, community services and agencies will be promulgated to provide students with a well-integrated structure of support from the College and community

Study Abroad Program

1. To increase study abroad offerings to include one program for each semester of the academic year and to maintain two programs every summer.

2. To explore ways to interest more students in studying abroad including opportunities for joint programs with other colleges.
3. To investigate the means of setting up and funding study abroad scholarship funds for deserving students who wish to take part in foreign study programs.

Technical Services and Computer Repair

Our most pressing goal is to provide the best technical support services possible to allow the College's academic and support departments to successfully utilize technology-based equipment.

Our goal to 'Train to Maintain' a trained technical staff to provide telephonic help-desk support, field and shop technical service, and design and purchasing assistance.

We will utilize two-way radio equipment to maximize our technical staff's efficiency and minimize response time.

Theatre

There is an immediate need for a full-time instructor to develop the technical theatre program into its full potential. There are excellent employment opportunities for students trained in this area and excellent resources for instruction at El Camino and in the surrounding community. The curriculum can be expanded and developed, internships provided, and certification for employment can be implemented.

This will require a computer lab to train students in the areas of set, lighting, sound, and costume design. Such a lab has been proposed which is to be shared initially with the music department.

Theatre 151 is a newly available classroom space for acting classes which will also be developed into a black box performing space creating new opportunities for acting and directing students.

There must be continued development of the audiences for theatre productions through effective marketing in order to create additional performing and technical opportunities for students.

Television and Media Communications

The Television and Media Communications program has great potential. The department's most vital goal is so develop courseware and promotional materials to attract students who want to work in this area. A full-time instructor would be able to focus on these goals and build a program during a period when technology jobs are on the rise.

Welding

There is a growing demand for skilled welders and fitters in many industries. The Petrochemical industry has entered a period of 15-20 years of remodeling projects. This is due to many concerns, such as: environmental, earthquake safety, technology changes and compliance issues. Earthquake Retrofitting of Buildings and Transportation Systems have created many job opportunities. One example of this would be the construction that will be taking place within the "10 Minute Diamond" around Los Angeles City Hall. These projects alone have been estimated to have a cost of over $2 billion. The aerospace industry downturn and rightsizing will also have an effect on the trade in the region. Jobs in the aerospace industry will continue to decline and the College must

modify its occupational curriculum to assist in the retraining of individuals into other fields of employment such as transportation.

To meet the critical demand for skilled welders, the El Camino welding program must be prepared. Our curriculum must be up-to-date, the facilities must be better than competitors, and our links with industry must be firm.

Work Place-Learning Resource Center

1. Expand existing methodologies and pilot new approaches and measures to aid training and program evaluation.
2. Expand and upgrade on a continuing basis the computer skills training programs designed for employment through the development of new curricula and the use of online delivery strategies.
3. Expand marketing efforts of WpLRC and actively seek new partnerships with local business and industry, community-based organizations and government agencies as an outreach effort of El Camino College and the community college system.
4. Integrate the WpLRCs method of individualized, on-demand instruction tailored to the needs of business and its workforce into related programs and services offered by El Camino College.

Chapter Four
A VISION FOR THE FUTURE

COLLEGE DISTRICT ORGANIZATION

Because of the proximity of adjacent community colleges, it is not likely that the California Post Secondary Education Commission would approve additional education centers or campuses in the El Camino Community College District. Thus, if the College wishes to establish educational centers, they would need to be developed in cooperation with other institutions, public agencies or partnerships with local business or industry.

There are two educational delivery system trends which should be addressed. First, additional emphasis will need to be placed on new learning paradigms and delivery strategies. Second, growing student diversity will require modifications in the delivery of support services.

PROJECTIONS

1. Population

The population of the 12 key zip code enrollment areas ("primary zip codes") in Table 5 is projected to grow by 1.7% by the year 2002. These zip code areas account for 55% of El Camino College's total enrollment. By applying the 1.7% increase, it is anticipated that the primary zip code areas population will grow to approximately 500,000 residents by the year 2002.

Demographers project a 2002 population of 1.257 million people in a ten-mile radius surrounding the College campus. Within this area, it is anticipated that by 2002 there will be 704,022 households with a median income of $43,294.

2. Enrollment

One expression of student enrollment projections is participation rate per 1000 area residents. The participation rate for the primary zip code areas is 27.0 students per 1000 residents. The range of rates in this area is from 13.7/1,000 to 43.7/1,000 students, compared to the statewide average of 37/1,000.

Several factors are involved in making an enrollment projection for 2002 at El Camino College.

1. If one projects purely on the basis of past enrollment and participation rates and relates this to the population increase statistics, the 2002 enrollment for the College will be 24,320 students.

2. Using 1990 as the baseline for analyzing growth rates, Table 22 shows a new emerging pattern in enrollments. Data indicates a positive rebound in enrollments beginning in the 1996 academic year, with moderate growth during the past two years.

Table 22
PERCENT ENROLLMENT CHANGES
1990-1998

Year	Enrollments	% Change
1990	27,161	Base Year
1991	25,237	-7.08%
1992	24,346	-3.53%
1993	23,319	-4.22%
1994	21,801	-6.51%
1995	21,640	-.74%
1996	22,657	4.70%
1997	23,029	1.64%
1998	23,918	3.86%

3. Assuming the College continues its marketing/recruitment efforts to increase the average participation rate to that of the state average (37/1,000) a significant enrollment increase could be realized. As an example, an increase in the participation rate in the primary zip

code area from the average of 27 students/1000 to the statewide average of 37/1000 would increase 2002 enrollment by 4,950 students, producing a 2002 enrollment projection of 29,270 students.

4. The most recent estimate from the Chancellor's Office indicates a projection of 25,508 students by 2002.

5. Considering the factors and projections from the various sources, it seems reasonable, for planning purposes, to project a student enrollment of 25,500 students by the year 2002.

6. Following the same logic, it seems reasonable to project a student enrollment of 28,000 by the year 2008.

For planning purposes, the specific year in which a given student enrollment is achieved is not critical. What is critical is that the trend in student enrollment be recognized and instructional programs, support services, facilities and staffing plans are in position when that level of enrollment is ultimately achieved.

3. Instructional Programs

As part of the environmental scan information presented in Chapter 3, the ranked 10 core trends were identified. In the next sections, these trends establish the foundation upon which the future instructional programs and support services of the College are based. This section includes information provided by faculty and staff through the Unit Planning Guide process.

Preface

In the next decade, significant changes to community college structure and function are anticipated to occur as the result of pressures from: 1) learners, 2) business and industry, 3) increasing competition in the education marketplace, and 4) accelerated competition for tax dollars. El Camino College recognizes these trends and is preparing to respond through development of sound planning and implementation strategies. Changes may manifest themselves in these ways.

Instruction

There is high probability that instructional delivery in the next decade will change significantly to accommodate various student learning styles and needs and will integrate computer technology more widely across the curriculum. Historically, education has focused on *teaching* and has devoted comparatively little attention to *learning outcomes*. While learning theory has recognized that people learn at different rates and with different cognitive styles, the teaching process has not always accommodated these differences.

Using the traditional lecture method, information is delivered at a pre-determined pace and students must master the subject matter in a pre-set period of time. It is hypothesized that other methods can be more effective for the many differing learning styles, tempos, sensory preferences and basic abilities of students.

Many experts in educational theory agree that effective education in the future will recognize and respond to learning as a process. Therefore, one may expect to see the following changes.

1) *Personalized Learning:* Learning strategies of the future will concentrate on diagnostic and prescriptive counseling which will lead to the development of a learning prescription that is tailored to both the educational requirements of the individual and his/her cognitive style.

2) *Alternative Instructional Delivery Strategies:* With the development of personalized learning strategies, there will be an increased need to develop learning alternatives through which an individual can gain the same body of material in a variety of ways. These learning alternatives will incorporate technology, tutorials, work experience, and specialized laboratories as supplements to conventional classroom lectures.

3) *Distance Learning:* Distance learning is a reality. El Camino College, along with most other postsecondary educational institutions, has offered credit courses via instructional television and computer based methods for many years. Increasing demands to: 1) personalize instruction to satisfy unique learner needs, 2) deliver instruction at the convenience of the student, and 3) use high technology that is more stimulating and attention gaining are impacting the community college education delivery system. Distance learning (in all its variations) will be available to a broader spectrum of individuals. Among those individuals are students who must cope with: 1) job and family schedules, 2) physical disabilities, 3) homes in remote locations and those experiencing difficulties in commuting to a college campus. One of the advantages of distance learning is that it is not a geographically restricted process and students may access learning experiences any time, any place.

4) *Learning Less Campus-Centered:* Distance learning will also lead to the realization that traditional community college campuses are no longer the sole-source learning environments and that learning activities can take place in the home, the work place, libraries, learning centers, the car, or anywhere an individual can access or use the computer. Nonetheless, the traditional community college campus will continue to have an important role as the location for the origination and dissemination of all programs and services.

5) *Less Schedule-Centered:* The instructional program of the community college of the future will be less dependent upon a schedule of classes, and more responsive to the individual schedules of learners.

6) *Short-Term, High Intensity:* Short-term, high-intensity learning experiences will be: 1) more responsive to the learner's individual schedule, 2) more appropriate to continual changes in the information base and 3) more relevant to the occupational education career ladder concept.

7) *Diverse Learning:* As the information age continues to expand there will be a renewed need for more diverse learning experiences and a wider variety of subject matter available to students. These materials will be packaged and repackaged into instructional modules that suit learner's individual needs.

8) *Responsive:* To remain competitive in the education marketplace, the community college will have to develop learning packages for learners of the future. Learners of the future will be more computer literate than their peers of today. They will have easy access to the information highway. They will be more goal directed. Therefore, learning packages must be responsive to learner needs and they must be developed within a short time frame.

9) *Life-Long Learning:* Life-long learning will be common place for the majority of workers in the next two decades. With the half-life of learning in some fields of knowledge as short as three years, this learning requirement will apply to students and faculty alike.

10) *Workforce Development Center:* Community college occupational education in the future will not be a two-year linear process, but rather a short term, high intensity experience that will provide entry level skills for workers in weeks or months. A critical component of this process will be continuing education, making possible career advancement in the process known as a "career ladder".

The driving force for the development and maintenance of educational programs and services of El Camino College will be the workplace, and ultimately the state of the economy. A significant number of individuals completing community college programs do not (and will not) remain in the local area. Rather, they move to other areas where employment opportunities exist. For this reason, it is not only important to be aware of the local job market, but to also examine state and national trends.

Many of these trends will have a significant impact on the future of El Camino College's instructional program.

1) There is a growing movement toward the infusion of greater amounts of technology into virtually all occupations. Computer literacy and related skills have rapidly become recognized as basic skills for education. Individuals not possessing these skills may soon be relegated to positions of lesser income or undesirable working conditions.

2) Increasing numbers of workers will be free-lance employees. This means that they will no longer work for a single company until they retire, but will contract their services to a number of firms who need their specific expertise. This change implies that students will need to be trained in *how* to secure multiple jobs and entrepreneurial skills. Courses and programs directed toward the operator of the home office, the independent contractor or entrepreneur and toward the self employed consultant will become a significant new component in the community college curriculum.

3) Mobility and flexibility will be important characteristics to be competitive in workplace of business and industry as old positions are phased out and new positions are created. Students will need to understand that *adaptability* is the most significant component for employment in the foreseeable future.

4) Occupational skills will have a life of one to three years and the average person will experience a major career change from five to seven times in their lifetime. Basic skills (and more significantly, learning how to learn both in a formal classroom sense and through auto-education) will be the keys to keeping pace with a rapidly changing world.

5) Managers of the future will need technical and interpersonal skills to bring cross-functional teams together to accomplish specific tasks and move rapidly to new projects. Business and general education programs must prepare to meet this need.

6) There will be more work done by fewer people with highly developed technical, interpersonal and intellectual skills. As a result, there is a danger that this will also create a permanent underclass that is both unemployed and unemployable. Increasing rates of illiteracy, coupled with the lack of motivation to address this situation, may lead to massive social unrest. Community colleges must stress basic skills, including basic computer literacy, as a means of combating the growing disparity between the employed and the unemployed and the unemployable.

7) Increasing numbers of companies are reimbursing employees for education/training costs as the need for a more highly educated workforce intensifies. This factor will provide community colleges with new opportunities for educational entrepreneurship and the development of contract education services tailored to the specific needs of businesses and industries. If community colleges do not actively respond by providing contract education and distance learning opportunities, a significant enrollment decline may occur.

8) The Southern California labor force will be older, immigrant, non-white, female, multicultural, and multilingual. Local population increases will be dominated by an increasing Hispanic component, many of whom may require remediation in language and basic skills prior to technical training. In addition, most students will require a broader range of student services such as financial aid, child care, individualized instruction and special counseling. To facilitate students' achievement of their full potential, community colleges will need to monitor the enrollment patterns of the student body on an annual basis and be prepared to adapt courses, programs, and services as needed.

4. Support Services

As instructional programs evolve, support services also will have to adapt. For example, counseling will assume a greater diagnostic and prescriptive role. This means that the counselors' role will include more emphasis on coordinating assessment of individual student needs with: 1) appropriate course placement, and 2) learning delivery modes consistent with the cognitive styles, learning needs, and available time of students.

As community colleges emphasize the development and operation of a totally "user friendly" environment, support services will assume a greater role in the overall system. Support services will concentrate on making it easier for students to register, check out learning materials, obtain special

assistance, access records, receive financial assistance and receive instruction from their homes or places of work.

The concept of a "One Stop" matriculation process will become the norm rather than the exception. Current technology permits colleges to admit, counsel, assess and register students in one interactive process. El Camino College's new student information system provides the technological support for these functions. The new student information system will be operational during the 1998-99 academic year. By the same token, staff development and training programs will need to be implemented to provide the faculty and staff with the skills and knowledge necessary to utilize this system effectively.

5. Facilities

El Camino College is in the position of having campus facilities, which by state standards, exceeds the assignable square footage of space needed for the number of students currently enrolled at the college. It is noted, however, that square footage alone does not describe the facility needs of the college. Many buildings were constructed in the 1950s and 1960s. These buildings were not designed to accommodate current technology nor life/safety standards. Many are very inefficient in design and do not allow for flexibility of use. In identifying the characteristics needed for college facilities and planning for the future, the following factors were considered.

1. *Less Campus Centered:* Significant changes in community college instructional programs could mean a change in the relative importance attached to the community college campuses built in the past. This means that construction of large numbers of classrooms and traditional laboratories may be less important than developing technology-based learning resource centers and outreach centers.

2. *Learning Resource Centers:* The community college of the future will require a more significant investment in development of ways to support alternative instructional delivery. The Learning Resource Center will be the structural foundation for learning advancement.

3. *Flexibility:* The one certainty in the future is that change will occur. Change in programs and services indicates that facility planning must be developed with the understanding that within five years, facilities will need to be remodeled. Thus, construction must take into account the element of flexibility and future utilization needs.

Given these parameters, it is critical that the college develop a construction plan that includes renovation, remodel and replacement of obsolete facilities and which are responsive to these guidelines.

6. Human Resources

1. *Faculty and Staff:* The community college of the future will require faculty and staff to be more knowledgeable and more flexible on the job. For example, an instructor may be assigned to teach a course one year that may be phased out the following year. This implies that training will be a continual process for faculty and staff. It could also imply that experts may be brought in for short duration, specific assignments.

2. *Technological Literacy:* It will be imperative that all faculty be technologically literate. This requirement will underscore the significance of the shift to learning delivery

alternatives and may necessitate significant efforts to provide training for those who lack the essential technological skills and knowledge needed.

7. The Business of Education

Education will change the way it delivers instruction to students. These changes will be brought about by a series of business considerations.

1. *Increasing Competition:* Community colleges are facing increasing competition for students and financial support. This competition, if unmet by appropriate actions, will result in declining enrollments and deteriorating facilities. Specific competitive strategies will need to be developed to meet this challenge and increase the viability of community colleges.

2. Rising Costs: As operational and personnel costs rise, and the uncertainty of commensurate levels of public funding becomes reality, El Camino College must expand its entrepreneurial efforts. New sources of revenue must be developed and encouraged.

3. *Entrepreneurism:* The business component of education must be increasingly an entrepreneurial effort. New ways to generate resources and reduce costs must be explored, and those enterprises with the potential of supporting this effort must be encouraged and fostered (e.g. The El Camino College Foundation).

4. *Privatization:* Community colleges are contracting in such diverse areas as food services, child care, maintenance and operations, bookstores, and record keeping. This is done in order to channel a greater percentage of the institution's budget to the instructional program and related costs.

5. *The Business of Education:* Money generated by student attendance is spent on salaries, supplies, equipment, and facilities. Low enrollments equates to less operating funds which means fewer employees, lower salaries, less equipment and supplies, and inferior facilities.

8. Curricular Offerings of the College

To assist the College in developing a comprehensive, balanced curriculum, the consultants have reviewed and quantified the instructional offerings of the College. Analysis of the current instructional program and projections for future instructional programs of the College revealed factors/variables which will require additional review and assessment by the College; including:

1. The current college-wide average class size of 27.6 students per class is below state average of 30-30.2 per class. (Refer to Table 24)

2. 16 of 21 programs offered by the College are below the state-wide average for WSCH/section. (Refer to Table 25)

3. The College is significantly below the state recommended ratio of 525 WSCH/FTES.

4. The scheduling pattern of the College reflects primarily a four-day schedule of classes rather than a five-day schedule of classes.

FACILITIES PLANNING

1. Enrollment Data

In the tables which follow, the instructional programs have been grouped in general categories for scheduling and for facility planning purposes. The number of sections of class recommended has been developed using guidelines and standards prevalent in California community colleges. These calculations have been prepared to provide greater efficiency and to more closely reflect state-wide average. If the guidelines are followed, the College will have an efficient, cost-effective, balanced schedule which will meet the needs of area residents.

Table 23
STATE-WIDE AVERAGE PERCENTAGE OF
LECTURE AND LABORATORY WSCH BY TOP CODES

Instructional Discipline	TOP CODES	% Lecture WSCH	% Laboratory WSCH
Ag./Nat. Resources	0100	20	80
Architecture	0200	25	75
Biological Science	0400	45	55
Business/Mgt.	0500	75	25
Communications	0600	80	20
Computer Info. Systems	0700	25	75
Education/P.E.	0800	5	95
Engineering/Tech.	0900	20	80
Fine/Applied Arts	1000	40	60
Foreign Language	1100	75	25
Health Occupations	1200	15	85
Consumer Ed./Child Dev.	1300	55	45
Law	1400	95	5
Humanities	1500	85	15
Library Science	1600	60	40
Mathematics	1700	90	10
Physical Science	1900	40	60
Psychology	2000	95	5
Public Affairs/Services	2100	80	20
Social Science	2200	95	5
Commercial Services	3000	20	80
Interdisciplinary	4900	50	50

(Source: California Community Colleges Chancellor's Office, Facilities Planning Unit)

Table 24
ANALYSIS OF STUDENT ENROLLMENT AND WSCH
(El Camino College Per Division, Spring 1998)

DIVISION	# OF SECTIONS	SEATS ENROLLED	AVERAGE CLASS SIZE
Behavioral and Social Sciences	231	9,281	40.2
Business	154	4,290	27.9
Fine Arts	304	6,672	21.9
Humanities	358	10,140	28.3
Industry & Technology	184	3,747	20.4
Mathematical Sciences	172	6,447	37.5
Health Sciences and Athletics	284	6,237	22.0
Instructional Services	68	1,339	19.7
Natural Sciences	147	4,387	29.8
TOTAL	**1,902**	**52,540**	**27.6**

(Source: El Camino College MIS)

Table 25
A COMPARISON OF STATE-WIDE AVERAGE WSCH/SECTION OF CLASS TO DISTRICT WSCH/SECTION OF CLASS

Instructional Discipline	TOP CODES	WSCH/SECTION STATE AVG.	WSCH/SECTION EL CAMINO
Ag./Nat. Resources	0100	84	42.5
Architecture	0200	92	82.0
Biological Science	0400	130	210.4
Business/Mgt.	0500	98	52.3
Communications	0600	118	34.1
Computer Info. Systems	0700	114	100.8
Education/P.E.	0800	85	50.0
Engineering/Tech.	0900	95	100.7
Fine/Applied Arts	1000	107	49.2
Foreign Language	1100	126	91.7
Health Occupations	1200	145	17.4
Consumer Ed./Child D.	1300	108	61.4
Law	1400	105	55.1
Humanities	1500	120	91.4
Library Science	1600	88	Not Offered
Mathematics	1700	138	149.2
Physical Science	1900	121	134.4
Psychology	2000	142	117.1
Public Affairs/Services	2100	101	70.8
Social Science	2200	136	85.7
Commercial	3000	109	128.4

Services			
Interdisciplinary	4900	102	83.9

(Source: Maas, Rao, Taylor and Associates, calculations based in Tables 23 & 24)

Table 26
AN ANALYSIS OF INSTRUCTIONAL OFFERINGS, FALL 1997
23,500 STUDENTS

Instructional Discipline	TOPS CODE	Total # of Sections	Calculated WSCH	Estimated FTES
Ag./Nat. Resources	0100	9	383	26.3
Architecture	0200	16	1,312	90.0
Biological Science	0400	48	10,099	692.5
Business/Mgt.	0500	140	7,329	502.6
Communications	0600	25	852	58.4
Computer Info. Systems	0700	86	8,672	594.6
Education/P.E.	0800	277	13,863	950.6
Engineering/Tech.	0900	114	11,477	787.0
Fine/Applied Arts	1000	391	19,237	1,319.1
Foreign Language	1100	90	8,252	565.8
Health Occupations	1200	99	1,724	118.2
Consumer Ed./Child D.	1300	59	3,622	248.4
Law	1400	36	1,983	136.0
Humanities	1500	352	32,167	2,205.7
Mathematics	1700	167	24,923	1,709.0
Physical Science	1900	81	10,883	746.3
Psychology	2000	57	6,675	457.7
Public Affairs/Services	2100	66	4,671	320.3
Social Science	2200	199	17,059	1,170.0
Commercial	3000	16	2,054	140.8

Services				
Interdisciplinary	4900	220	18,450	1,265.1
TOTAL		**2,548**	**205,687**	**14,104.4**

(Source: Academic Affairs Office & El Camino College MIS)

Table 27
AN ANALYSIS OF INSTRUCTIONAL OFFERINGS
PROJECTED FOR 25,500 STUDENTS

Instructional Discipline	TOPS CODE	Total # of Sections	Calculated WSCH	Estimated FTES
Ag./Nat. Resources	0100	6	360	25
Architecture	0200	14	1,232	84
Biological Science	0400	52	9,360	642
Business/Mgt.	0500	144	10,080	691
Communications	0600	20	1,200	82
Computer Info. Systems	0700	110	11,500	789
Education/P.E.	0800	260	16,900	816
Engineering/Tech.	0900	110	11,000	754
Fine/Applied Arts	1000	298	19,370	1,328
Foreign Language	1100	65	6,825	468
Health Occupations	1200	99	5,940	407
Consumer Ed./Child D.	1300	47	3,760	258
Law	1400	32	2,400	165
Humanities	1500	342	37,620	2,580
Mathematics	1700	182	26,390	1,810
Physical Science	1900	89	11,125	763
Psychology	2000	62	7,440	510
Public Affairs/Services	2100	64	5,760	395
Social Science	2200	178	19,580	1,343
Commercial	3000	18	1,980	136

Services				
Interdisciplinary	4900	206	18,540	1,271
TOTAL		**2,398**	**228,362**	**15,317**

(Source: Maas, Rao, Taylor and Associates projection)

Table 28
AN ANALYSIS OF INSTRUCTIONAL OFFERINGS
PROJECTED FOR 28,000 STUDENTS

Instructional Discipline	TOPS CODE	Total # of Sections	Calculated WSCH	Estimated FTES
Ag./Nat. Resources	0100	6	374	26
Architecture	0200	14	1,280	87
Biological Science	0400	54	9,727	667
Business/Mgt.	0500	150	10,475	718
Communications	0600	21	1,247	85
Computer Info. Systems	0700	114	11,950	820
Education/P.E.	0800	270	17,562	848
Engineering/Tech.	0900	114	11,431	784
Fine/Applied Arts	1000	310	20,129	1,380
Foreign Language	1100	68	7,092	486
Health Occupations	1200	103	6,173	423
Consumer Ed./Child D.	1300	49	3,907	268
Law	1400	33	2,494	171
Humanities	1500	355	39,095	2,681
Mathematics	1700	189	27,424	1,881
Physical Science	1900	92	11,561	783
Psychology	2000	64	7,732	530
Public Affairs/Services	2100	66	5,986	410
Social Science	2200	185	20,348	1,396
Commercial	3000	19	2,058	141

Services				
Interdisciplinary	4900	214	19,267	1,321
TOTAL		**2,490**	**237,312**	**15,906**

(Source: Maas, Rao, Taylor and Associates projection)

Table 29
ANALYSIS OF LECTURE AND LABORATORY WSCH
BY INSTRUCTIONAL DISCIPLINE PROJECTED FOR 25,500 STUDENTS

Instructional Discipline	TOPS CODE	Total # of Sections	Lecture WSCH	Laboratory WSCH	Total WSCH
Ag./Nat. Resources	0100	6	72	288	360
Architecture	0200	14	308	924	1,232
Biological Science	0400	52	4,212	5,148	9,360
Business/Mgt.	0500	144	7,560	2,520	10,080
Communications	0600	20	960	240	1,200
Computer Info. Systems	0700	110	2,875	8,625	11,500
Education/P.E.	0800	260	845	16,055	16,900
Engineering/Tech.	0900	110	2,200	8,800	11,000
Fine/Applied Arts	1000	298	7,748	11,622	19,370
Foreign Language	1100	65	5,119	1,706	6,825
Health Occupations	1200	99	891	5,049	5,940
Consumer Ed./Child D.	1300	47	2,068	1,692	3,760
Law	1400	32	2,280	120	2,400
Humanities	1500	342	31,977	5,643	37,620
Mathematics	1700	182	23,751	2,639	26,390
Physical Science	1900	89	4,450	6,675	11,125
Psychology	2000	62	7,068	372	7,440
Public Affairs/Services	2100	64	4,608	1,152	5,760
			18,60		

Social Science	2200	178	1	979	19,580
Commercial Services	3000	18	396	1,584	1,980
Interdisciplinary	4900	206	9,270	9,270	18,540
TOTAL		**2,398**	**137,259**	**91,103**	**231,362**

(Source: Maas, Rao, Taylor and Associates projection)

Table 30
ANALYSIS OF LECTURE AND LABORATORY WSCH
BY INSTRUCTIONAL DISCIPLINE PROJECTED FOR 28,000 STUDENTS

Instructional Discipline	TOPS CODE	Total # of Sections	Lecture WSCH	Laboratory WSCH	Total WSCH
Ag./Nat. Resources	0100	6	75	299	374
Architecture	0200	14	320	960	1,280
Biological Science	0400	54	4,377	5,350	9,727
Business/Mgt.	0500	150	7,856	2,619	10,475
Communications	0600	21	994	253	1,247
Computer Info. Systems	0700	114	2,988	8,962	11,950
Education/P.E.	0800	270	878	16,684	17,562
Engineering/Tech.	0900	114	2,286	9,145	11,431
Fine/Applied Arts	1000	310	8,052	12,077	20,129
Foreign Language	1100	68	5,319	1,773	7,092
Health Occupations	1200	103	926	5,247	6,173
Consumer Ed./Child D.	1300	49	2,149	1,758	3,907
Law	1400	33	2,369	125	2,494
Humanities	1500	355	33,231	5,864	39,095
Mathematics	1700	189	24,682	2,742	27,424
Physical Science	1900	92	4,624	6,937	11,561
Psychology	2000	64	7,345	387	7,732
Public Affairs/Services	2100	66	4,789	1,197	5,986
			19,33		

Social Science	2200	185	1	1,017	20,348
Commercial Services	3000	19	412	1,646	2,058
Interdisciplinary	4900	214	9,634	9,633	19,267
TOTAL		**2,490**	**142,637**	**94,675**	**237,312**

(Source: Maas, Rao, Taylor and Associates projection)

2. Methods

When space needs are projected, a total square footage requirement is compared against current space holdings. This comparison results in a net space capacity. The following sections provide a definition of capacity, a listing and explanation of the utilization and planning standards used to determine capacity, and net space capacity in all categories of educational space for each college in a District.

3. Facilities Inventory

The inventory of facilities is an important tool in planning and managing college campuses. The California Community Colleges Facilities Inventory Manual includes descriptive data on buildings and rooms for each college district. These data are essential elements in developing the annual Five-Year Capital Construction Plan and in scheduling and controlling campus space. In addition, planning for new capital outlay construction projects, projecting future facilities, developing capital outlay and deferred maintenance budgets and analyzing space utilization are all tasks which rely heavily on the facilities inventory documents and procedures.

The Education Code mandates an annual inventory of all facilities in a district. As part of the initial review of facilities in the College, a room-by-room analysis was completed for every building. The results of this inventory have been integrated into the current data base and used for the projection of future building requirements for 25,000 students.

4. Existing and Future Space Capacity

By combining existing and future enrollment estimates with appropriate space use standards, space capacity for the current year or future years, respectively, is developed. Space Capacity is the direct relationship between the amount of space available, by type, which may be used to serve students, and the number of students participating in campus programs. Space Capacity analysis typically includes the following types of spaces:

- Classrooms
- Teaching laboratories
- Non-class laboratories
- Library/learning resources
- Offices
- Audio visual, radio and television (instructional media) facilities
- Teaching gym
- Food service
- Lounge
- Bookstore
- Health services
- Theater
- Meeting Room
- Data processing
- Physical plant
- Assembly/exhibition

The above space categories represent the majority of the total educational and general facility space on a typical community college campus. Space Capacity analysis enables an institution to identify the types of space it needs and/or the types of space it holds in excess. Analysis of Space Capacity forms the core of the Facilities Plan.

5. Space Utilization and Planning Standards

To determine Space Capacity requirements for a College's enrollment, the enrollment itself, or an appropriate form thereof, is applied to a set of standards for each type of space.

6. Prescribed State Space Standards

Title V of the California Administrative Code (Sections 57000-57140) prescribes standards for the utilization and planning of most educational facilities in public community colleges. These standards, when applied to the total number of students served (or some variant thereof, e.g., weekly student contact hours), results in the total capacity requirement expressed in assignable square feet (space available for assignment to occupants). The subsection which follows presents utilization and planning space standards not prescribed by the State. The Title V space planning standards used to determine both existing and future capacity requirements are as follows:

- **Classrooms**
  - Assignable square feet (ASF) per student station 15
  - Station utilization rate 66%
  - Average hours room used per week 53

- **Teaching laboratories**
  - ASF per student station ..... Refer to Table 31
  - Station utilization rate 85%
  - Average hours room used per week 27.5

- **Offices, Office Service, Conference Rooms, and Reception Areas**
  - ASF per FTE instructional staff 122

- **Library/Learning Resource Facilities**
  - Base ASF allowance 3,795
    - ASF for first 3,000 DGE 3.83
    - ASF per 3,001 - 9,000 DGE 3.39
    - ASF for more than 9,000 DGE 2.94

- **Instructional Media/AV., TV, Radio**
  - Base ASF allowance 3,500
    - ASF per first 3,000 DGE 1.50
    - ASF per 3,001 - 9,000 ..... .75
    - ASF for more than 9,000 ..... .25

Each component of these standards is mathematically combined with an appropriate form of enrollment to produce a total assignable square feet (ASF) capacity requirement for each category of space. The sum of these categories is the total building requirement for the College.

Table 31
ASSIGNABLE SQUARE FEET (ASF) FOR LABORATORY SPACE

Instructional Discipline	TOP CODES	ASF/Station	ASF/100 WSCH
Ag./Nat. Resources	0100	115	492
Architecture	0200	60	257
Biological Science	0400	55	235
Business/Mgt.	0500	30	128
Communications	0600	50	214
Computer Info. Systems	0700	40	171
Education/P.E.	0800	75	321
Engineering/Tech.	0900	130	480
Fine/Applied Arts	1000	60	257
Foreign Language	1100	35	150
Health Occupations	1200	50	214
Consumer Ed./Child D.	1300	60	257
Law	1400	35	150
Humanities	1500	35	150
Mathematics	1700	35	150
Physical Science	1900	60	257
Psychology	2000	35	150
Public Affairs/Services	2100	50	214
Social Science	2200	50	214
Commercial Services	3000	50	214
Interdisciplinary	4900	60	257

(Source: Maas, Rao, Taylor and Associates)

Table 32
WORKSHEET FOR COMPUTING FTE INSTRUCTIONAL STAFF

	Total Professional Instructional and Statutory Staff FTE	Non-Instructional Portion FTE	Net Total Statutory Staff FTE
Instructors			
Counselors			
Department Admin.			
Librarians			
Instructional Admin.			
Totals			

(Source: Maas, Rao, Taylor and Associates)

This worksheet (Table 32) is derived from the Five Year Capital Construction Plan program. Each year, the district completes this chart for submission to the State. For long-term planning purposes, this chart is used to project staffing for the College. Five categories of Full Time Equivalent (FTE) of staff are specified. These five categories are defined as follows:

1. **Instructors:** Included are the professional instructional staff for day, extended-day, and adult education, except those whose office is located in an off campus location.

2. **Counselors:** Includes the professional counseling staff, special programs coordinators, extended opportunity program coordinators, statutory and Title 5 required staff.

3. **Department Administrators:** Includes professional staff responsible for coordinating or supervising departmental activities. This category is dependent upon the organizational structure of the college, but is generally defined as the department chair for an instructional or support service area.

4. **Librarians:** Professional librarians and directors of media services.

5. **Institutional Administrators:** Professional administrators with responsibilities covering the entire institution such as a President, Vice President, Deans, Business managers, etc. This category generally covers all administrators above the department level.

7. Non-State Space Standards.

The State provides standards for utilization and planning for more than 60% of all types of spaces on campus; however, capacity estimates for remaining spaces must also be based on some factor of the size or nature of the institution. Standards for the remaining types of spaces are presented in Table 32. They were formed based on a national study of space standards and discussions with colleagues in California community colleges and the Chancellor's Office.

Table 33
NON-STATE STANDARDS

Category of Space	Basis	ASF Factor
Non-class Laboratory	ASF per headcount student	0.095
Teaching Gyn	ASF per FTE student	4.5
Assembly/Exhibition	ASF per seat	15
	Percent of total headcount students	10
Food Service	ASF per DGE	2.5
Lounge	ASF per FTE student	0.75
Bookstore	Base ASF allowance	1,500
	ASF per student	0.75
Health Service	ASF allowance	500
Meeting Room	ASF per headcount student	1
	Percent of total headcount students	25
Child Care	Percent of DGE or ASF allowance	1% - 6,000
	See also, State child care standards	
Data Processing	ASF allowance	5,000
Physical Plant	Percent of all other space	5%

(Source: California Community Colleges Chancellor's Office and Maas, Rao, Taylor and Associates)

8. Analysis of Available Capacity

Determining excess space capacity is an essential starting point in the master planning process for facilities. Prior to determining future capacity needs, there must be an assessment of current space holdings. Space in the current inventory for each campus is deducted from the total need in each type of space based on current enrollment, which results in a net ASF needed.

1. Projections for Future Capacity Requirements

Future capacity requirements for each location were determined following these steps.

- Enrollment estimates, or the appropriate form thereof, were applied in combination with appropriate space planning standards (space planning standards were presented on the preceding pages) to result in a total space requirement in ASF by type of space.

- The current space inventory for the College was subtracted from the total space requirements described above in step one to result in net ASF need by type of space for the projected 10-year facilities plan.

- The result, net assignable square footage by type of space for the 10-year cycle was then used to assist in phasing the project with certain types of space requirements. Included in these exhibits is a detailed breakdown by major category of the type and amount of facility space needed by the College to serve 28,000 students.

Table 26 lists the credit instructional offerings and WSCH for the College for fall, 1997. In turn, Tables 27 through 30 project the sections of class and WSCH that will be generated by each instructional discipline as the college achieves the projected enrollment of 28,000 students. The WSCH information generated becomes the basis for the projection of future facility requirements for the College as illustrated in Tables 35-36.

Table 34
FACILITIES INVENTORY --- FEBRUARY 1, 1998

Room Use Category	Description	ASF
100	Lecture/Classroom	116,929
210-215	Laboratory	197,277
220-250	Non-Classroom Laboratory	3,484
300	Office	93,205
400	Library	42,165
520-525	Physical Education (Indoor)	99,904
530-535	Instructional Media (AV/TV)	3,615
610-625	Assembly/Exhibition	60,698
630-635	Food Service	19,820
650-655	Lounge	21,542
660-665	Bookstore	17,593
680-685	Meeting Room	10,833
710-715	Data Processing	6,202
720-740	Physical Plant	54,298
830-880	Health Services & All Other	6,125
TOTAL		753,690

(Source: California Community Colleges Facilities Inventory)

Table 35
A PROJECTION OF LECTURE AND LABORATORY ASF FOR 28,000 STUDENTS

Instructional Discipline	TOPS CODE	Total # of Sections	Lecture ASF	Laboratory ASF	Total ASF
Ag./Nat. Resources	0100	6	32	1,471	1,503
Architecture	0200	14	137	2,467	2,604
Biological Science	0400	54	1,878	12,573	14,451
Business/Mgt.	0500	150	3,370	3,352	6,722
Communications	0600	21	426	541	967
Computer Info. Systems	0700	114	1,282	15,325	16,607
Education/P.E.	0800	270	377	*53,556	*53,933
Engineering/Tech.	0900	114	981	40,238	41,219
Fine/Applied Arts	1000	310	3,454	31,038	34,492
Foreign Language	1100	68	2,282	2,660	4,942
Health Occupations	1200	103	397	11,229	11,626
Consumer Ed./Child D.	1300	49	922	4,518	5,440
Law	1400	33	1,016	160	1,176
Humanities	1500	355	14,256	8,796	23,052
Mathematics	1700	189	10,589	4,113	14,702
Physical Science	1900	92	1,984	17,828	19,812
Psychology	2000	64	3,151	581	3,732
Public Affairs/Services	2100	66	2,054	2,562	4,616
Social Science	2200	185	8,293	2,176	10,469
Commercial Services	3000	19	177	3,522	3,699
Interdisciplinary	4900	214	4,133	24,757	28,890
TOTAL		**2,490**	**61,191**	**189,907**	**251,098**

(Source: Maas, Rao, Taylor and Associates projection)

Note: *Physical Education Activity utilization is a separate calculation and is not included in the allocation of laboratory space.

Table 36
BUILDING REQUIREMENTS TO MEET THE NEEDS OF 28,000 STUDENTS

Space Category	Current Space Inventory	ASF for 28,000 Students	Additional ASF Needed
Lecture/Classroom	116,929	61,191	(55,738)
Laboratory	197,277	189,907	(7,370)
Non-Classroom Laboratory	3,848	2,064	(1,420)
Office	93,205	83,938	(9,267)
Library	42,165	44,098	1,933
Instructional Media (AV/TV)	3,615	11,729	8,114
Physical Education	99,904	53,510	(46,394)
Assembly/Exhibition	60,698	32,608	(28,090)
Food Service	19,820	15,424	(4,396)
Lounge	21,542	10,072	(11,470)
Bookstore	17,593	10,864	(6,729)
Health Services	1,182	2,172	990
Meeting Rooms	10,833	5,436	(5,397)
Data Processing	6,202	5,566	(636)
Physical Plant	54,298	27,470	(26,828)
All Other	4,943	14,840	9,897
TOTAL	**754,054**	**570,889**	**(182,801)**

(Source: Maas, Rao, Taylor and Associates projection)
Note:Numbers in ( ) are negative numbers.

10. Facility Planning Components

The previous sections of this chapter have outlined the quantitative aspects of the present and future facility needs for El Camino College. Using this information as a guide, the consultants met with representatives of the College to review the physical condition of the current facilities and to develop a long term plan for future facilities for the campus. A summary of the key issues identified as part of the process and the recommended solutions are presented in the sections which follow. Back-up documentation including the detailed space inventory, current 5-Year Capital Construction Plan, deferred

maintenance issues and cost estimating information is available in the Planning, Research and Development Office.

In assessing the campus facilities, site planning components were identified. These components are as follows.

- College Identity
- Community Outreach
- The Campus Architecture
- Land Utilization
- Facilities Which Support the College's Institutional Program and Support Services
- Deferred Maintenance

Each of these components is discussed in the following sections.

1. **College Identity**: Does the architectural form and setting of the college create a message to the surrounding community by establishing a campus identity? In analyzing this question, the following issues were identified.

   1) The primary entrance to the College is from Crenshaw Boulevard. The first impression of this entrance is that it leads to a long, narrow parking area and beyond the parking area, the administration building which reflects the overall architectural style of the College. The College makes a definite architectural statement with the red brick exterior utilized throughout the campus. It is easy to identify the main entrance, but often difficult to locate parking in close proximity to the entrance.

   2) A preliminary visual assessment of the buildings from any of the perimeter roads gives the impression that the college is a series of well-designed, red brick and concrete structures. It is a positive architectural statement to the community. Upon a detailed analysis of the buildings, it becomes evident that there are some deferred maintenance concerns such as lighting, air conditioning and mechanical issues which need to be addressed.

   3) The campus signage is good with directional signs throughout the campus. New students to the campus must follow signs to various buildings on the campus to complete the enrollment process. This can lead to some confusion for first-time visitors.

   4) The campus has been constructed in an incremental manner. As such, there are clusters of buildings located in various areas of the campus. The overall student/pedestrian circulation element is good with wide walkways throughout the campus.

   5) Exterior lighting on the buildings, grounds and parking areas is good and provides more than adequate safety for evening students.

2. **Community Outreach**: Are there plans to extend the educational programs and support services of the college throughout the college's service area? The following observations were noted.

   1) El Camino College is located in close proximity to a number of other community colleges including Compton, West L. A., L.A. Harbor, and L.A. Southwest. The one area which the College may wish to consider for an educational center is in the northern portion of the District. Unfortunately, such a center would not qualify as a state supported center for capital construction due to its close proximity to the established colleges in the area.

   2) El Camino College is perceived as a premiere, 2-year transfer institution. As a result, the College's service area encompasses not only the entire South Bay area but surrounding area of Southern California as well. Currently students from more than 400 zip code areas attend the College.

   3) The College currently has a number of partnerships and training programs with local business and industries. However, it is important that additional public/private partnerships with local businesses and industries be established.

   4) At present, and even more in the future, the college will be more than a campus-based entity. It will offer programs and services throughout the communities it serves.

3. **Campus Architecture**: Does the current and planned architectural style of the campus offer students and employees a sense of order, consistency and an overall feeling that is conducive to learning?

   1) As indicated in a previous section, the architecture of the college provides a positive impression. The size and design of the primarily brick exterior provides a strong exterior statement. However, upon detailed analysis, a significant portion of the interior spaces do not support a modern, up-to-date learning environment.

   2) The existing classrooms and support service facilities do not provide a modern, flexible, technology-enhanced environment. Throughout the campus, the existing classrooms promote a traditional lecture or laboratory environment that offers the instructional staff limited flexibility. These are traditional lecture/laboratory spaces. These spaces do not support individualized learning or new technology systems.

   3) Future remodeling projects for the campus will need to address how the current, traditional space can be modified to reflect a more open, accessible learning environment which supports new teaching technology and individual learning processes.

   4) The current space inventory for the College indicates there is an excess of lecture, laboratory and office space on the campus. According to state formulas, the College has enough space to accommodate an additional 6,000-8,000 students beyond the

current projection of 28,000 students. Other than health/safety or remodel for efficiency projects, there does not appear to be justification for additional state supported capital construction.

4. **Land Utilization**: Is sufficient acreage available for the campus to expand to its proposed maximum build-out capacity:

   1) The campus has sufficient acreage and building sites to accommodate the projected enrollment of 28,000 students. The campus actually has a maximum build-out potential for 35,000 students.

   2) Attention must be given to maintaining the building exteriors and campus landscaping. Attractive, open space is desirable on the campus. To date, the buildings and grounds of the College reflect good care and is one of the finest community college campuses in California.

   3) During peak class times, the present walkways and access to the parking areas are busy but accommodate all pedestrian traffic.

5. **Facilities Which Support the College's Instructional Program and Support Services**: Does the current campus environment promote the delivery of instructional programs and support services or does it undermine the process of learning?

   1) The College has experienced a decline in enrollment during the late 1980s and early 1990s. Although this trend has been reversed, the current utilization of space on the campus is less than what was projected for this time. Assuming student enrollment gradually increases to previous levels, the college will still need to address the excess amount of lecture, laboratory and office space on the campus. A major concern is the updating of current space to accommodate the changes in technology and instructional delivery systems. The present facilities are traditional, lecture/laboratory facilities and many do not provide the infrastructure or flexibility needed in today's instructional setting. In addition, the actual square footage in rooms is far beyond that needed for the class size assigned to the room thus creating an immediate shortfall in facilities utilization. To a great extent, facilities are dictating the manner in which instructional programs and support services are provided.

   2) As part of the master planning process, it appears the best options for the state funded, 5-Year Capital Construction Plan would be:
      (1) Health/Safety Projects,
      (2) Remodels for Efficiency,
      (3) Demolition,
      (4) Remodel for Technology

   3) As part of the Unit Planning Guide process, faculty and staff identified the following facility concerns:
      (1) The College needs to provide additional technology systems throughout the campus.

(2) In the establishment of budget priorities, the College should include and address the physical environment of the campus.
(3) Through the budget process, the College should commit as large a portion of its resources as possible to preventive maintenance and up-keep of facilities.
(4) The College should continue to give the highest priority to health and safety issues in the day-to-day maintenance of facilities.
(5) The exterior lighting of the campus needs to be continually monitored to create an secure, safe environment in the landscape and parking areas.

6. **Deferred Maintenance Issues**: Has a plan for deferred maintenance of existing facilities been implemented? In reviewing this issue, it was found that a number of state and locally funded deferred maintenance projects have been funded. However, due to the age of the campus and the limited funds that have been available, there are a number of items that need to be addressed.

1) Painting of all exterior wood, surfaces and building components
2) Improve exterior building and campus lighting
3) Resurface parking areas
4) Revitalize campus landscaping
5) Painting of interior classroom spaces
6) Continue the on-going schedule for roof repair
7) Renovate existing electrical systems to support the installation of new technological systems
8) Renovate and replace voice/data infrastructure
9) Develop a plan for the systematic replacement of all heating and the addition of cooling systems
10) Renovate and replace carpeting and fixed classroom seating
11) Renovate and remodel rest rooms
12) Renovate and maintain the physical education facilities

11. Facilities Phasing Plan

The Capital Construction Plan for the campus has been, and will continue to be a phased-developed plan. As discussed in the previous chapter, even though the campus has more building square footage than is required by state standards for the current student enrollment, the quality of space does not meet state standards. There are a number of buildings which are inflexible, inefficient, not adaptable for accommodating new instructional technology and do not meet all health and safety standards.

The Capital Construction Plan must take these deficiencies into account and plan for renovation, remodel and replacement to address these concerns. Table 34 (page 101) shows the assignable square footage per room category. Outlined in Table 37 is the proposed development plan for the college. Deferred maintenance projects are shown on the summary as a line item only. Efforts will be made to assure that the district's Five Year Deferred Maintenance Plan be funded and up-dated on an annual basis.

Table 37
CAPITAL CONSTRUCTION PROJECTS

Project	Description	Commence Date	Est. Budget
1. Science Complex	Health/Safety Project	2000	$19, 000,000
2. Child Development Ctr.	Phase II — Addition	2000	$2,100,000
3. Demolition	Portion of Existing Science Bldg.	2001	$300,000
4. Remodel for Efficiency	Humanities Bldg.	2001	$8,000,000
5. Deferred Maintenance	Pursuant to Plan	On-going	$10,000,000
		TOTAL	**$39,400,000**

(Source: El Camino College 5-Year Construction Plan)

HUMAN RESOURCES

This master plan is a research-based document. The initial data was extracted from the Unit Planning Guides developed by the faculty and staff of the College. As part of the unit planning process, recommendations were made regarding modifications to instructional programs and support services. In nearly every case, there were staffing implications. Needless to say, this meant additional staff, not a reduction in staff. Consequently, as part of this plan, it is essential that the current procedures relating to the area of human resources be addressed to provide guidelines for the prioritization for the potential hiring of additional staff and the ramifications of those decisions

1. Selection of Staff

In accordance with the current bargaining unit contract, there is a District process for the allocation of faculty FTE to comply with the State mandated 75/25 staffing ratio requirements. The process involves meeting annually, and as needed, for a discussion on faculty staffing. The president, vice-presidents and representatives of the bargaining unit examine the Colleges' priority lists and attempt to estimate the number of new, full-time faculty positions for each area of the College based upon the staffing assessments submitted by each dean, full-time/part-time staffing ratios, college growth projections, retirement projections and other factors.

Upon completion, the goals of the Educational Master Plan should serve as the basis for the aforementioned process. In this way, the educational and support service priorities established on a College-wide basis should serve as the basis for the staffing plan.

With respect to classified staff, the District has developed a process for establishment of support staff positions throughout the College. The process essentially evolves through the deans to the vice-presidents and finally to the president for approval. Once again, the goals of the Educational Master Plan should serve as the basis for these decisions.

2. Qualifications of Staff

The District hiring policy for all employees requires that all candidates demonstrate minimum standards of academic training and/or professional experience in order to carry out the responsibilities listed in the job description. Even though affirmative action policies have recently been modified, the College continues to aggressively recruit faculty and staff which are reflective of the College's service area population. Through Governing Board policy, the District has established minimum standards for all employee positions. Job descriptions have been developed and are on file in the Human Resource Office.

For planning purposes, additional student enrollment and planned retirements mean an effort will need to be made to attract qualified staff to the College, especially those who help the College reflect the diversity of the College's service area population.

3. Evaluation of Staff

The College currently has an evaluation process which is typical of most community colleges. The goals of the process are to assess the performance of individuals, to help to develop and enhance individuals' achievements in their jobs and to increase the effectiveness of the institution through the evaluation process. The evaluation is based on direct observation and knowledge of the individual by the evaluator(s). Areas of strength and recommendations for improvement are identified. With respect to planning for the future, it appears the evaluation process for faculty seems to be working well. However, it is recognized that this is a bargaining unit issue and thus parameters regarding that process should be followed.

4. Staff Development

If many of the recommendations included in this Educational Master Plan are to be implemented in a timely manner, it will be critical that a comprehensive staff development program be implemented on an on-going basis. Financial support for employees to attend conferences, workshops and seminars which allow them to maintain competency and gain new knowledge, especially in the technology area, is essential to the implementation of this plan. Current flex activities are good and should continue.

In summary, implementation of the goals and strategies in this Educational Master Plan should provide the basis for a well-founded, comprehensive Human Resources Plan including: 1) assessment of the need for new positions, 2) replacement of existing positions, 3) evaluation of employees and 4) continuation and expansion of staff development activities.

FINANCIAL PLAN

As a vital segment of the California Master Plan for Higher Education, the California Community Colleges and specifically El Camino College, has traditionally been a State-funded institution. Unfortunately, for the past 20 years, the level of financial support from the State has been very erratic and unpredictable from year-to-year. There have been periods of unlimited growth and periods when the State has "capped" the level of support.

The one constant factor that has been in place since the passage of the Jarvis-Gann Initiative (Proposition 13) in 1978, is that funding is totally State mandated and totally unpredictable. Today, because the level of available funding as well as the likelihood that State funding will not be available at a level to support

both the capital and operational needs of the College, it is important to assess the financial future of the College and suggest alternate sources of revenue which the College will need to cultivate in order to maintain quality educational programs, support services and facilities for residents of the service area.

To this end, this current plan summarizes strategies which have been implemented as well as strategies which can be implemented in the future. These strategies are summarized in a general manner in the following section. However, it is important to realize that the real implementation of these strategies is contingent upon the College recognizing and responding in a timely manner to financial opportunities as they become available. Each financial opportunity is a unique opportunity. No financial plan can spell out, in detail, how to respond; but it can predict the general areas of funding within which the opportunities will occur.

Thus, this plan will address, in outline form, the various sources of funding available to the College together with an assessment of support potential for both operational and capital projects. In the sections that follow, an assessment has been made of the strength of the potential financial sources which may be available to the College.

SOURCES OF FINANCIAL SUPPORT

1. State Revenue Sources
    1. *Operational Funds:* It is likely that the district will receive annual operating fund increases of between 2-3% for the next decade. This current year has been better than the past six, but it again reflects the unpredictability of state funding. The one certainty is that the District will be "capped" and cannot expect to fully fund both its increasing costs of operations and new innovative programs from state revenue sources.

    2. *Enrollment Fee Increases:* Enrollment fees have been minimally reduced but it would not be unlikely to see it increase in the years ahead. This is not an appreciable revenue increase for the District since the tuition revenues are offset by adjustments in State apportionment funding.

    3. *Capital Funds:* While there are many variables in the allocation of State Capital Outlay funds such as District growth potential, age and condition of buildings, health and safety issues, and needs for specialized programs, the District can probably anticipate funding for at most two or three projects over the next 5-10 years.

    4. *Categorical Funds:* State increases in funding in this category will be in no greater amount than necessary to offset services.

    5. *Lottery Funds:* The District should not anticipate any increases in the amount of lottery funds received over the next decade.

C. Local District Funds

1. *Health Fees:* The College has the ability to assess a student health fee to provide funds to offset services.

2. *Parking Fees:* Parking fees will continue to provide funds to offset the costs of constructing and maintaining parking facilities.

3. *Student Center Fee:* By vote of the student body, this fee can be implemented. The fee provides for the construction of student centers.

2. Community-Based Funds
   1. *Redevelopment Funds:* The primary sources of community-based funds is in the area of Redevelopment Funds, a one-time funding source that should be utilized for capital projects. Because of the age of the areas surrounding El Camino College, it may be possible to utilize the state-mandated increment to provide off-campus educational facilities. The college should be prepared to capitalize on redevelopment funds should such opportunities arise in the near future.

   2. *Special Assessment Districts:* Mello Roos, lighting districts, and other special assessment districts can be utilized as planning progresses for on-campus and off-campus centers. However, these assessments can only be implemented with a two-thirds voter approval from the affected group of voters.

3. Implementation of Resource Development Model

Financial resources are always a critical part of any planning effort. Without funds for implementation, any plan which is developed quickly loses support from the faculty and staff of the College. Thus, it is essential that the College exert a maximum effort to explore all options with respect to resource development. A proactive, positive approach is needed with everyone considering innovative approaches to funding. Sole reliance on the State of California to fund the College is not a viable answer. The College must maximize its ability to receive State funds and at the same time explore all alternate sources of funding.

To this end, it is important to involve as many faculty and staff as possible in resource development. Resource acquisition must be organized and logical. Accomplishments must be promoted so faculty and staff see incentives and a sense of purpose in some form of alternative revenue acquisition (e.g., fund raising, grant writing, partnership solicitation). The College Foundation, alumni, local business leaders, the cities, key businesses in the area and local governmental agencies, may be instrumental in the overall scheme of resource acquisition.

4. For the Future: Significant Endowments

Significant efforts should be made to secure major donor interest in the college mission. Alumni relations are most effective on an individual basis initiated by personal contacts. Numerous discussions with various affluent alumnae and friends can reap great benefits for the College. These types of donations generally require a minimum of 2-3 years to cultivate.

5. Alternate Funding Sources

1. *Energy Programs:* The District is already participating in an energy conservation program and there is the potential for further participation in both State and utility sponsored programs.

2. *Real Estate Management:* The District has the option to manage current District real estate holdings not needed for instructional purposes. Also, the District can acquire additional property and enter into joint venture agreements or public/private partnerships for the development of those sites. In many cases, these can be revenue generating activities. The outcome of these asset management efforts will generate an additional and predictable revenue stream that can be used for future capital outlay projects.

3. *Fee-Based Programs:* Through the development of special fee-based classes for general audiences and through contract education with local businesses and industries, the College can develop a revenue-generating educational services organization that will enhance the over-all financial condition of the District and that can provide additional funds for equipment, supplies, and facilities.

4. *Federal Programs*: While it is recognized that El Camino College is participating in both student and institutional Federal Programs, it is necessary to maintain an awareness that the total spectrum of Federal involvement in higher education seems to be changing and it is important to closely monitor proposed and new programs. It appears additional opportunities in areas such as child care, training partnerships and technology grants are becoming increasingly available.

5. *Private Grants:* The area of private grants is one that holds increasing opportunity for the College. This is especially true if the College pursues public/private partnerships for training programs.

6. *Public-Private Partnerships:* An increasing opportunity for alternative funding lies in the area of public-private partnerships. In particular, the current land management program should open additional opportunities. Such potential partnerships should include private businesses, and industries within the community as well as nonprofit entities and other educational institutions.

7. *Public-Public Partnerships:* Partnerships with cities, civic organizations, and other public entities are of increasing value to the College. Such partnerships provide another source of both revenue and educational opportunity for the community.

8. *Foundation Activities:* Through the Foundation, the College can realize additional income, scholarships for students and special project funding. Endowment Trust Funds and other estate planning instruments can provide long-term income to the College as can shorter range foundation fund raising activities, and planned giving programs.

Chapter Five
PLAN OF ACTION

As part of the planning process, the District Planning Council attempted to identify trends and directions for El Camino College for the next 10 years. Chapter 3 presented 10 core external environmental trends as developed by the District Planning Council. In addition, the rationale and implications for the College and the community are presented. To assist with the development of the trend statements, the consultants provided background information, an assessment of current instructional and support services at the College and projections of what they believe the direction of the College should be in coming years.

The following sections present assessments of present instructional programs, support services and projections for the future as well as recommended goals and strategies.

THE PLANNING FRAMEWORK FOR THE NEXT TEN YEARS

A number of factors related to business and education in California will undoubtedly cause major paradigm shifts in education, both in terms of the physical structure of education facilities, and instructional delivery. These changes will be driven by a number of realities, including, but not limited to, the following:

1. Realities
    1. California's economy is dependent upon an educated work force. World-class business is dependent upon world-class education.

    2. Community colleges will continue to be a major pathway to success that includes programs in the basic skills, transfer, and occupational education areas.

    3. The future promises to punish the ignorant even more than did the past.

    4. The State of California's budget is still a year-to-year proposition. Overall income and expenditures are expected to grow at an annual rate of approximately 7.0% over the next three to five years.

    5. The State can no longer afford to build community colleges as it has in the past. Both land acquisition and building costs are rapidly moving beyond their financial reach, and large centralized campuses are contrary to the anticipated trends in educational technology and distance learning.

    6. Business and industry are presently spending increasing amounts of money on employee training, with national expenditures for employee education equaling the amount spent by public education. This dual educational system is not a financially realistic approach to learning.

    7. Education of the future will become less classroom oriented and more individualized and self-paced.

8. Off-campus learning (distance learning) will become a wave of the future in post-secondary education. The anticipated information super-highway will feature community colleges as way-points.

9. There will be a blurring of the line between credit and not-for-credit education and between lower and upper division, credit course work.

10. Contract education will increase as a viable alternative to traditional community college education.

2. College District

As the College continues to grow over the next decade, it will need to continuously monitor its administrative structure as a compliment of the changing function of the College and the District.

In this process it should also be recognized that the College has two basic functions. The first is the day-to-day operation of the College and the second is the long-term planning for the College. A balanced schedule of activities and work load must be established so that the daily management responsibilities for key administrators are not so time consuming that there remains no time for planning. Crises management is not good management. A balance between daily activities and visionary planning will yield dividends for the future growth and development of the College.

3. Educational Programs

A consistent theme in this review has been the need to facilitate instructional change through effective dissemination of information and innovations. This can be accomplished through continuing education for employees, making certain employees are 100% computer/technologically literate, through showing the relevance of change in assuring the survival of the institution, through establishment of a plan for distance learning. The concept of technology-based learning laboratories permitting students to learn at their own pace according to their own cognitive styles, should continue to be pursued. It behooves the College to continuously evaluate the entire process of instructional delivery and learning enhancement and make appropriate changes, as needs dictate.

Toward this end, faculty and staff must be given the charge and the freedom to test new concepts, to risk, and to make new mistakes. Similarly, there is a need to review every instructional area of the curriculum to determine the ways in which innovative teaching methods can be integrated into the program to both broaden and enrich the student's learning process.

4. Alternative Instructional Delivery

A great deal has been written about different learning styles and the need to match these individual styles with learning delivery methods that are appropriate to them. At El Camino College, there is a need to continue to develop alternative methods for students to gain the same body of knowledge. As an example, a class may be offered in a traditional lecture format, and also offered as a television course, in a computerized version delivered at either a campus learning center, or via a modem to the student's home or place of work. In addition, major lectures could be placed on audio tapes so students could listen to them in either their automobiles or homes, and still other delivery alternatives may feature combinations of the above strategies.

5. Program Review and Evaluation

To keep pace with change, there is a need to continue assessing the state of the College's program offerings in comparison to the needs of the service area. This will assure that the College its goals as well as student needs. Additionally, increased efforts to follow up students will assist in determining program effectiveness.

As the College expands its innovative programs and services, evaluation techniques must be built into the process to determine the viability of these new offerings. There is a need to evaluate all existing courses, programs, and services on an ongoing basis.

6. Distance Learning

Although the College already offers distance learning, there is a need to expand these efforts and to provide new means of delivering instruction to students at off-campus locations.

The concept that learning associated with a specific course must take place in a geographically specific location will likely diminish in the next decade. It will be replaced by technology supported learning activities that can take place in a student's home, place of employment, automobile, libraries, or any other location where technology can make the connection, as well as on traditional campuses. The distance learning concept will thus modify how the campus is defined and will influence remodeling and construction in the future.

SUPPORT SERVICES

Support services will continue to have a critical role in the success of students. As the population of the College's service area changes, so will the demand for additional services for students. It must be emphasized that support services, as defined in this planning process, include all non-classroom activities which enhance and support the total learning experience of the student. The success of many students will depend on how well the College provides a comprehensive array of support services to assist the students in achieving their educational objective.

Faculty and staff at the College are currently in the process of implementing a new student information system. The successful implementation of this system is critical. When operational, this system will allow the College to effectively assist students in all areas of matriculation. In addition, it will provide the necessary technology support for faculty and staff. It must be emphasized that this system is an up-to-date information system which will assist the staff. It will not replace the staff. Human interaction with students is, and will continue to be, critical to success.

To this end, services need to be centralized and easily understood. All services associated with matriculation of students, including the payment of fees, needs to be centralized in one location. The entire enrollment process needs to be revisited as a result of the implementation of the student information system. Processes cannot continue as they have in the past.

Throughout the years, a number of support services have evolved at the College as appendages to current programs or stand alone entities with reporting relationships outside the normal organization of the College. Such services, be they tutorial, job placement, career assistance, financial assistance, or unique

education or training programs, need to be mainstreamed into the College's current organizational structure.

A. Technology

In July 1997, the College completed its Master Technology Plan. The College is now in the process of implementing that plan. The following comments are consistent with the guidelines established in the plan and emphasize the key concepts which will serve as a basis for its successful implementation. Beyond any doubt, the impact of technology during the next 20 years will totally change the variety and extent of learning opportunities available to individuals, and the ways in which they may select and individualize their own learning programs.

Through the use of computer hardware and software, and even more significantly, through the use of technology blends such as computers and video discs, DVD, CD-ROM, cable television, or in the near future, virtual reality, the options open to the learners of tomorrow will be far beyond today's wildest imaginings. The signs are all around us that technology will be a major factor in the education of tomorrow; in fact, it already is with us today. Many of today's learners are already technologically literate and understand the powerful potential of computers and related technologies as teaching aids. They expect to have this learning alternative available, and if not, they will seek their education elsewhere.

A number of factors have become apparent and create this reality.

- The key ingredient in today's world is information, and the primary characteristic of this information is that it is constantly changing in unpredictable ways and at unpredictable rates. The information doubling time in some areas of science and technology is as short as three years.

- Technological devices are becoming more complex and more functionally capable while becoming less expensive.

- The average individual has a need to continue learning as a life-long process due to pressures of on-the-job information explosions, and because the average person will have five major career changes in their lifetime and must thus seek retraining opportunities.

- There are numerous demands on people's time in today's world, and it cannot be expected that they will be able to attend classes at times scheduled on the basis of the convenience of educational institutions as their counterparts have in the past. Alternatives to scheduling must be developed and learning times individualized.

- A growing number of individuals in our society are functionally illiterate. They need to learn how to learn and the basic skills of reading, writing, mathematics, and language. These skills are expensive to teach in conventional learning environments and may be delivered via technology with great savings in cost and time.

These are the realities of technology and must be integrated within the College.

- The key characteristic of microprocessor technology is that it is changing, and that each change produces the potential for still faster changes in the future. There can never be a time when a college can purchase the ultimate in technological equipment. There may be the latest and the greatest, but never the last. Each piece of hardware and each software program has a lifetime, hardware has a longer lifetime than software, but none is longer than three to four years. The bottom line is that technology will never mature.

- Staying in the mainstream of hardware and software use requires a constant expenditure of money. Technology purchases are never one-time purchases, and what is purchased this year may be obsolete and need to be re-purchased three years from now.

- Technology is forcing educators out of their old paradigms and into a less secure environment. Technology has demanded a re-evaluation of content and methodologies in education.

- The failure to incorporate mainstream current technology into educational programs and student services will cause community colleges to become increasingly obsolete and lose their adaptive potential in a changing world.

HUMAN RESOURCES

1. Professional Development

The College is at the epicenter of a changing learning environment. There is a need to develop new institutional responses to the changing needs of the service area. This is particularly true in view of the commitment the College has made to infuse greater amounts of technology into its courses, programs, and services. As a result, there is an expanding need to provide all College employees with a comprehensive professional development program.

2. Replacement of Retirements

El Camino College has a significant number of employees who have been with the College for decades. Many are in their 50's and early 60's and are rapidly approaching the point where they will consider retirement. While this stable workforce has been a strength of the institution, it has created a situation where the College must conscientiously prepare for staff turn-over. The College must anticipate the retirement of a number of key personnel and the need to replace them with new hires. In this process, the College should carefully consider both the area of service that has been provided by these existing staff members and the need to provide new services. These new services will undoubtedly require extensive use of technology in both instructional and support services. A specific job profile should be developed for each replacement position that will take into account both the present and anticipated directions of the College.

3. Allocation of Human Resources

Changes in instructional and support services and the incorporation of more technology into the programs and services of the College will lead to changes in the ways in which College employees are deployed. This is not to say reductions are to be considered, but rather those employees may be assigned to new responsibilities, and new positions may emerge, as changing student needs are perceived. In the development of the Human Resources Plan, the College must recognize these potential changes and the

need to re-train both existing staff and hire replacements that may have additional sets of skills and knowledge.

4. Human Resources Plan

With the implementation of a new management information system, it is essential that a detailed analysis be developed for both classified and faculty positions. Employees need to be included in the analysis and projections developed for future retirements. A systematic process for filling retirement positions and the job skills required of the new positions need to be established. The plan will need to be developed in a incremental manner with the first task being to identify all full-time and part-time positions. The second step will be to create an accurate data base for all current employees. Finally, the projections and future staffing needs can then be defined.

RESEARCH AND DEVELOPMENT

There is a need to continually expand the information/research base of the College. The development of closer ties with business and industry in the community requires the College to have a data base of constantly upgraded information on the area's employment market and emerging occupational opportunities. There is a continuing need to utilize research performed within the District as the basis for decision-making.

In addition, there needs to be a College-wide commitment to development activities associated with a community needs assessment, innovation and core curriculum development, business and professional training, new program development, and the development and expansion of community partnerships. All these activities are vital to the continued success of the College and a concerted effort should be made to further these activities by active support of individuals from all segments of the College.

FACILITIES

As discussed in Chapter 4, El Camino College has an excess of building space when compared with state standards for community colleges. Despite these data, the District is aware that the issues of health and safety, modernization of buildings to incorporate the technological infrastructure needed to deliver quality instruction, and flexibility for future growth must be considered in the Educational Master Plan. Potential projects follow.

1. Science Complex ..... Health/Safety Project
2. Child Development Center ..... Addition to Current Building
3. Renovation/Demolition ..... Portions of Existing Campus Buildings
4. Humanities Building ..... Renovation/Remodel for Efficiency
5. Deferred Maintenance ..... Pursuant to Plan

FINANCIAL STRATEGIES

A number of options regarding alternate funding were discussed in Chapter 4. The concepts presented are not new. They have been discussed and reviewed by college governing boards and administrators for most of the 1990s. Even though the concepts have been discussed by many, few have implemented plans of action. Rather, the colleges have simply responded to the funding from the state and adjusted

their local budgets accordingly. Each of these strategies needs to be carefully considered and implementation strategies defined.

Colleges must go on the offense. They must implement alternate funding strategies to survive and to provide the level of services needed for residents of the service area. They need to be serious about partnerships. Truly commit to them and set annual goals. Once partners are obtained, keep them. Build on past success. Two or three successful partnerships is not enough. There needs to be constant monitoring and institutional support for this effort.

A financial strategy, which must be addressed, is the assessment of the current instructional program of the College. An average class size of 27 students is expensive. By increasing the class size to a more traditional 30-32 students, the College should be able to reallocate nearly two million dollars in operating revenue to other needs such as instructional technology. It is simply a reallocation of existing resources and a strategy which can be implemented immediately.

INSTITUTIONAL GOALS, AND IMPLEMENTATION STRATEGIES

The District Planning Council established 10 core external environmental trends for master planning. These 10 trends were presented in Chapter Three. Using them as a guide and the information provided by the consultants, the District Planning Council has developed the following goals and implementation strategies to provide measurable activities and outcomes associated with implementation of this plan:

GOAL 1: ***Continue to build educational programs which will maintain optimal academic standards in addition to providing accessibility and opportunity for changing student needs.***

Strategy 1-1: Establish a target maximum enrollment for the College and develop strategies to achieve program, divisional and college-wide WSCH/FTE goals.

Strategy 1-2: Reassess the current curriculum by considering the implementation of more interdisciplinary classes, the integration of classes between academic and occupational programs, increased use of technology in the learning environment and increasing the flexibility in the scheduling of classes to meet student and community needs.

Strategy 1-3: Develop new professional/technical instructional programs to meet emerging needs of business within the area.

Strategy 1-4: Develop a plan for tutorial services which will include the expanded use of technology to provide individualized learning opportunities.

Strategy 1-5: Through distance learning, develop and market learning options for all segments of the population.

Strategy 1-6: Integrate continuing education, not-for-credit and credit courses into a comprehensive instructional program which is holistically marketed to residents of the service area.

Strategy 1-7: Develop programs and services at neighborhood centers throughout the College District.

GOAL 2: ***Provide the technology, infrastructure, facilities and information distribution systems that will enable El Camino College to support the tasks of educating, learning and administrating in the 21st century.***

Strategy 2-1: Review the current assignment and use of lecture and laboratory space on the campus to determine the highest and best use of all current space and the feasibility of remodeling existing space to be responsive to new training opportunities.

Strategy 2-2: Implement the systems and training as outlined in the College's Technology Plan.

Strategy 2-3: Develop and implement a plan for the systematic upgrading and replacement of equipment on a college-wide basis including consideration for support staff, training, maintaining, troubleshooting and servicing equipment.

Strategy 2-4: Develop a Five-Year Capital Construction Plan which provides for the remodel and/or reconfiguration of existing space to meet the needs of new and expanding instructional programs, support services and economic development programs.

GOAL 3: ***Increase the capacity of the support services to respond to projected student enrollment and changing student needs.***

Strategy 3-1: Determine how tutorial services can be mainstreamed as an integral part of the instructional and/or support service programs.

Strategy 3-2: Develop a plan for tutorial services which will include the expanded use of technology to provide individualized learning opportunities.

Strategy 3-3: Develop a plan to centralize all student services relating to the matriculation of students in one, highly visible, central location on the campus.

Strategy 3-4: Expand child care services in accordance with funds provided by CalWORKs.

Strategy 3-5: As part of the enrollment management program, identify programs and services to be marketed to the senior and other identified under-served populations.

GOAL 4: ***Provide an environment that improves faculty and staff recruitment and retention and that enhances opportunity and support for involvement in professional development activities.***

Strategy 4-1: Continue to diversify faculty, staff, students and curriculum in response to the changing demographic profile of the service area population.

Strategy 4-2: Expand the current commitment to staff development to provide faculty and staff the ability to implement and support distance learning technology in the curriculum and support services of the College.

GOAL 5: ***Foster a campus climate that will maintain and enhance faculty, staff and student confidence in El Camino College and its reputation.***

Strategy 5-1: Increase the College's efforts in articulation and partnership activities with both high schools and 4-year institutions within the College's service area.

Strategy 5-2: As part of the overall marketing plan for the College, develop specific activities designed to reach older students and those from Asian and Hispanic backgrounds.

Strategy 5-3: Design specific support services tailored to assist older individuals and those from Asian and Hispanic backgrounds.

GOAL 6: ***Create the internal and external partnerships necessary to keep El Camino College responsive to its diverse community and moving forward as a leader in community economic development.***

Strategy 6-1: Expand the role of the College in the economic development of the South Bay area and develop additional partnerships with business, industry and community agencies.

Strategy 6-2: Expand partnerships with business and industry to include on-site after work programs for employees.

GOAL 7: ***Create a progressive and prudent economic plan that will support growth and enable El Camino College to excel in community college achievement.***

Strategy 7-1: Pursue additional grant funding for CalWORKs recipients which may include funding for the College as well as for the individual student.

Strategy 7-2: Analyze the current scheduling practices of the College to establish a WSCH per instructional discipline which is equal to, or exceeds, the state-wide average for each discipline.

Strategy 7-3: Achieve a college-wide WSCH/FTE ratio of between 500-525 WSCH/FTE.

GOAL 8: ***Increase student success, particularly in the areas of course completion, degrees, certificates and transfer.***

Strategy 8-1: Design specific instructional and support services tailored to assist those individuals requiring retraining to achieve employability.

Strategy 8-2: As part of the enrollment management program, identify programs and services to be marketed to the unemployed and under-served population.

Upon adoption of the Educational Master Plan, it is important that all faculty and staff recognize that planning is an on-going process and it is critical to the success of the College. To this end, it is important that specific activities and time lines be developed for each of the strategies outlined in the Plan. In turn, an annual monitoring of these activities should occur with the Plan used as a basis for future decision-making at the College.

Most important, the Plan should be reviewed annually and updated to continually reflect a long-term vision for the College.

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