



EDUCATION PLAN
for
SKYLINE COLLEGE

prepared by
Voorhees Group LLC
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TABLE OF CONTENTS

CONTEXT FOR EDUCATION PLANNING	1
Integration of the Education Plan with Existing Planning	3
Current College Goals	4
Current and Completed Construction	5
Questions Addressed by the Education Plan	6
ENVIRONMENTAL SCAN	7
Demographics	7
Employment	9
Housing	10
Secondary Schools	11
Technology and Learning	11
Higher Education and Public Policy	12
Community Colleges	13
PLANNING ASSUMPTIONS	14
CURRENT STATUS	17
Enrollment History	17
Student Gender and Race/Ethnicity	18
Secondary Schools	20
Transfer Students	21
Cost of Attendance and Financial Aid	22
Budgets and Resources	24
Faculty Resources	26
Degrees and Certificates Awarded	27
Special Programs	28
Developmental Education Courses	28
International Trade Development Center	29
Center for Workforce Development	29
Program Vitality	30
Current Status of Distance Education	33
Scheduling of Courses	34
PROJECTED NEEDS FOR COMMUNITY COLLEGE PROGRAMS	36
Statewide, Local, and National Labor Markets	39
Statewide Trends	39
Bay Area Employment Trends	39
National Employment Market Trends	40
Hot Community College Programs	41
Program Competitor Analysis	42
Potential New Programs	45
Existing Programs to Strengthen	51

Recommended New Programs	53
Other Initiatives	55
Developmental Skills	55
Distance Education	56
Noncredit and Not-for-Credit Classes	58
Pre K through 16 Linkages	58
Strategic Enrollment Management	59
Student Support Services	60
Workforce literacy	60
 FUTURE ENROLLMENTS, RESOURCES, AND FACILITIES	 61
Enrollment Projections	61
Employee Resources	62
Facilities	64
 RECOMMENDATIONS, SUGGESTED STRATEGIES, AND SUCCESS FACTORS	 67
 ENVIRONMENTAL SCAN SOURCES	 74

LIST OF APPENDICES (Separate Documents)

- A. GIS Maps
- B. Program Planning Questionnaire Summary
- C. Formal Awards 2000-01 to 2004-05
- D. Fall and Spring Term Weekly Student Contact Hour Totals by 2-Digit TOP Codes
- E. Top 100 California Fastest Growing Occupations, 2002 to 2012
- F. Competitor Analysis Data
- G. Enrollment Projection Report

CONTEXT FOR EDUCATION PLANNING

Located on the San Francisco Peninsula, in San Bruno, Skyline College is a public Associate's degree granting institution. The College primarily serves northern San Mateo County and residents drawn from the southern portion of San Francisco whose boundary is five miles north of the College. The campus consists of 111-acres bounded by residential developments and the Golden Gate National Recreation Area. Brisbane, Colma, Daly City, Milbrae, Pacifica, and South San Francisco are the closest communities to Skyline College. The City of San Bruno is adjacent to San Francisco International Airport. Although served by the San Mateo Transportation District buses, the campus is not situated near major transportation corridors.

Skyline College is one of three colleges in the San Mateo County Community College District (SMCCCD), a district that enrolls more than 45,000 students each year. Skyline College's share of this enrollment is nearly one-third while the College of San Mateo and Cañada College, constitute 44 and 24 percent of the district's total enrollment, respectively. The district is governed by a five-member District Board of Trustees that operates independently from County government and whose membership is elected at large by County voters every four years.

San Mateo County is situated between San Francisco County to the north, Santa Cruz to the south, and Santa Clara to the east. The northern portion of Santa Clara county and east side of the San Francisco Peninsula are often referred to as the Silicon Valley, home to many of the world's high technology companies including Adobe Systems, Apple Computer, Cisco Systems, DreamWorks Animation, Google, eBay, Sun Microsystems, and Yahoo! The boundaries of Silicon Valley are not easily fixed; it is more a regional state of mind than a geographical location. The result is that intellectual capital in the Peninsula is considerable, lending itself to new products and innovations including the Bay Area's emerging biotechnology industry.

Taken as a whole, San Mateo County is remarkably affluent and well-educated. Median family incomes (\$88,763) outstrip both California (\$58,327) and the nation as whole (\$53,692). Forty-three percent of adults already possess a bachelor's degree. The escalating housing market in the county produced a median house price of \$678,433 in 2004. These statistics, however, belie a more complete picture of the challenges facing both the county and the College. There are pockets within San Mateo County where median family incomes are less than \$20,000 annually and where fewer than 5 percent of adults have earned bachelor's degree. Nearly 6 percent of the county's population lives under the poverty line, with no discretionary income, including 5 percent of those 65 and older. The continuing divide between "haves" and "have-nots" spells opportunity for Skyline College. Geographic Information System (GIS) maps appended to this report (Appendix A) depict pockets, or Census Tracts, within a 10-mile radius of the College that can be used to target programming matching demographics.

Reflecting the Bay Area's increasing racial and ethnic diversity, Skyline College enrolled a student body that is 24 percent White, 26 percent Asian, 19 percent Hispanic, 19 percent

Filipino, and 4 percent African American in Fall 2005. Projections developed for this Education Plan show that the College will experience even more diversity in its service area in coming years. Overall headcount enrollment at Skyline College has decreased over the past two years while the number of credit hours has increased.

Skyline College offers more than 80 associate degree and certificate programs. Nearly 900 course sections were offered in fall 2005 almost all of which were convened at its main campus at 3300 College Drive in San Bruno. In fall 2006, 10 course sections are planned in five off-campus locations including the South San Francisco Center on Chestnut Avenue. The College has been accredited by the Western Association of Schools and Colleges (WASC-ACCJC) Accrediting Commission for Community and Junior Colleges since 1971. The College is currently preparing for its next accreditation visit scheduled for the fall of 2007. Skyline College also holds specialized accreditation for its programs in cosmetology, emergency medical technician, respiratory therapy, and surgical technology. The College does not operate not-for-credit programs.

Skyline College is engaged in essential thinking about its future and its contributions to its service area, the State of California, the nation, and an increasingly global world. Impetus for planning is found in two recent bond elections passed by the voters of San Mateo County. In November 2001, the voters of San Mateo County passed Measure C, authorizing SMCCCD to issue \$207 million in general obligation bonds to fund facilities capital improvements. An additional \$100 million in other funding was secured from various sources, including redevelopment funds, State Chancellor's Office program funds, grants, donations, fees, and other miscellaneous funding sources, resulting in a construction program valued at \$307 million. Subsequently, in November 2005, Measure A was passed, authorizing the District to issue an additional \$468 million in general obligation bonds to continue to execute facilities capital improvements. These resources provide Skyline College with an opportunity to engage its future in new ways.

In December 2005 the College issued a request for proposals to for the development of an Education Plan. This plan was to assess Skyline College's environment and to make recommendations on instructional programs and support services that will meet the changing demands of the community. The College desired to have this information on hand as a forerunner to the development of a Facilities Master Plan to guide its share of capital construction under Measure A. The Education Plan is also intended as a precursor to a broader district wide plan to be created in the future. The College contracted with Voorhees Group LLC in February 2006 to facilitate the development of its Education Plan.

The process of facilitating this plan consisted of three rounds of strategy sessions with internal and external stakeholders as well as 2 Town Hall meetings held on the Skyline campus. Additionally, extensive conversations with College administrators, faculty leadership, and students guided the development of the recommendations presented as the last section of this report. Data and information were drawn from Skyline College internal sources, the California Community College Chancellor's Office, the California Postsecondary Education Commission, the California Department of Labor, and from local, state, and federal databases available

through the Internet. Instructional and non-instructional programs were surveyed in February and March 2006 to add to intelligence gathering and to develop a global sense of the College's strengths, challenges, and requirements (see Appendix B). Collectively, these data and information-gathering processes converge in this document with the intent of providing the College guidance about new opportunities to serve its many communities.

Integration of the Education Plan with Existing Planning

Skyline College presently benefits from planning that is both operational and strategic in nature. This Education Plan seeks to incorporate existing work at Skyline College by offering a fresh look at the realities in the College's internal and external environment and to offer a set of recommendations based on research. Recommendations emanating from this Education Plan will require additional consideration in the course of existing and future planning. Accordingly, this Education Plan offers a framework and focused guidance for the College as it faces the future, but does not replace other types of planning that must occur. This is particularly true in the development of new instructional programs where this Education Plan can assist in evaluating present programs and in making recommendations about new programs, but cannot substitute for the professional judgement and further research required to optimally align programs.

Current Planning at the College is guided by the Institutional Planning Committee whose members are drawn college-wide from faculty, staff, and administrators. The planning process requires each unit of the College to develop activities within an annual work plan that supports the College's five goals (see below) which, in turn, culminates in a report to the College community. In the fall of 2005, the IPC began to refine the planning process to more closely link planning activities to the budget planning process and to provide leadership to align strategies to each goal to provide more concrete direction for college units. Early integration of this work and the present Education Plan was brought about by the IPC's use of the environmental scan and planning assumptions found in subsequent sections of this report to provide direction to units as they developed strategy.

The IPC has also implemented an extended cycle of planning (one year development and three-year implementation) that allows for a longer time horizon for complicated strategies as well as the opportunity to assess progress over multiple points of time. This has produced a noticeable clarity in the planning process and the creation of the College's first three year college-wide work plan. Ultimate oversight for planning and policy formulation is provided by the College Council consisting of the College's president, vice presidents, and the presidents and vice presidents of the Academic Senate, Classified Council, and Associated Students. The Council is responsible for reviewing the progress and accomplishments of the units and committees and serves as the umbrella shared governance committee for the College.

Current College Goals

Five college-wide goals were established in 2003 and serve as the framework for institutional planning: (1) Develop the scope, quality, accessibility and accountability of instructional and student service offerings, programs, and services; (2) Enhance institutional effectiveness in the planning and decision-making processes through cooperative leadership, effective communication, and shared governance; (3) Fulfill the College's role as a leading academic and cultural center for the community through partnerships with business, the community, and non-profit organizations. (4) Provide adequate human, physical, technological and financial resources to successfully implement educational programs and student services in order to improve student learning outcomes. (5) Offer faculty and staff opportunities for professional growth and advancement.

Program review. The College also engages in program review of all instructional and student services programs on a six-year cycle. Coordinated by the College's Curriculum Committee, this process is conducted over a 14-month period and culminates in the preparation of a final report that integrates data acquisition with analysis of each program's strengths and challenges. All instructional programs utilize three year's data on enrollment, performance, and the ratio between weekly student contact hours (WSCH) and faculty full-time equivalent (FTE) assigned to that program. Between October 2003 and October 2005, twenty-five programs were reviewed. Current movement by the entire College to a three-year planning process will provide the instructional and student services area a longer planning horizon for developing new programs and refining existing programs.

Planning support. Several companion tools recently are in the development stage at the College to aid planning and management, the Performance Measurement System and the Skyline College Scorecard. The Performance Measurement System seeks to measure the College's success in achieving its current five goals from the perspectives of external and internal stakeholders, financial and business operations, and innovation and growth by specifying effectiveness indicators and outcome measures. The Scorecard is a framework for translating the College's strategies into a set of performance indicators. At completion, the Scorecard will provide a common language and methodology for the College to judge whether it is making appropriate progress against a set of defined benchmarks. Together, both tools support existing planning and can support those Education Plan recommendations contained in this report.

Integration. This Education Plan seeks to provide a solid basis for Skyline College to approach its future. It does not replace the considerable planning work that precedes it. Rather, it seeks to compliment and build upon past accomplishments by assessing the College's environment and making recommendations on instructional programs and support services that will meet the changing demands of its stakeholders. The lens used in this Education Plan, then, focuses on a longer time horizon than present planning efforts and, in so doing, provides the College with fresh directions to consider within its ongoing planning.

Current and Completed Construction

Context for this Education Plan may also be found in the substantial efforts to improve the campus through capital construction. Measure C permitted the College to address longstanding facilities issues. Measure A will allow the College to do even more in the next several years. As of this writing, new construction is nearing completion on a Student Support and Community Services Center, a Science Annex, and a restroom building that serves the athletic facilities. The present cafeteria will be relocated to the Student Support and Community Services Center (to be called Building 6), freeing up space on the third floor of Building 2 for other uses, including expansion of needed office space. The new student union will contain a food court and dining area, bookstore, cyber café, and game room as well as a second floor that will house student activities, a study lounge, a meeting center and the associated student's offices. The Science Lab Annex will permit the addition of classroom space. Floors one and two will be renovated for Allied Health Programs. The third floor will be renovated to accommodate new classrooms and office space. When renovation of the present Building 7 is complete, the College will have one additional biology and chemistry lab and an expanded physics lab.

Existing Buildings 3 (Gymnasium) and 8 (General Instructional Building) are currently undergoing seismically upgrades and modernization. Building 3 is receiving accessibility upgrades, a second floor restroom to service the gymnasium, and renovated locker rooms and showers. Additionally the dance studio and mat room will also be remodeled. Accessibility upgrades for Building 8 include a new elevator that will service both building 7 and 8. New division offices for business and language arts and renovated instructional space is planned for Building 8. This building is also scheduled for expansion of technologically equipped "Smart" classrooms. Present closure of these buildings has resulted in programs being assigned to buildings on the adjacent Pacific Heights campus which has been configured as swing space.

Completed construction as of the date of this plan includes portions of Building 2 (General Instructional Building) that have been renovated for a Student Services One Stop Center and a Center for Advanced Computer Technology. Athletics facilities have been renovated, including the installation of synthetic turf on most of the fields. Repairs and upgrades have been made to infrastructure systems, including storm water, sanitary sewer, domestic and heating water supply systems, electrical and gas supply systems, fire alarm and life safety systems. Finally, mechanical, electrical and lighting systems have been renovated and modernized for energy efficiency and improved functionality. In one way or another, construction has been a fact of life on the Skyline Campus since 2002 and, with the introduction of capital construction made possible by Measure C, the issues caused by construction will continue for the foreseeable future.

Questions Addressed by the Education Plan

Specific tasks and questions that the College asked to be addressed during this Master Plan process include:

1. Help Skyline College to understand the populations and subpopulations that it is not now serving.
2. What will be the projected needs for community college programs and services for San Mateo County the next ten years? And, beyond?
3. How can Skyline College meet needs for education through programs, support services, organizational development, technology, staffing, and marketing?
4. What programs and services will Skyline College need to develop to meet the varied needs of locations within San Mateo County?
5. Conduct a series of staff and community focus groups throughout the County to assess unique needs and preferences for current and new programs.
6. Collect and analyze information external to the College including the County's pre K through 12 education sector, economic development organizations, competitor higher education institutions, and state government employment projections.
7. Provide Skyline College with an analysis of future demand for programs and services as well as an assessment of institutional capacity to meet that demand. Included here are: a. How responsive are current credit career and technical programs and noncredit programs to business/industry needs? b. What new programs need to be developed to meet emerging workforce needs? c. What programs must be downsized or altered to meet workforce needs? d. To what extent do support services meet current student needs as well as future needs? e. Is the organizational structure of Skyline College developed to carry out program expansion?
8. Develop projections for student enrollment, instructional space, existing programs, support services, and educational delivery systems in existing locations and in new centers.
9. What policies and marketing strategies will Skyline College need to develop to meet customer needs for education through 2015?
10. What planning and assessment processes are necessary for the College to meet its obligations to citizens of San Mateo County? How can Skyline College most effectively integrate its planning and budget setting processes?
11. Develop a final report combining analyses and projections into a comprehensive Education Master Plan for Skyline College and recommend steps to embed Education Master Plan goals within the College's ongoing operations and budgeting cycles.

ENVIRONMENTAL SCAN

Demographics

- Population will increase statewide by 41.3 percent from the year 2000 to 2030. San Mateo County's predicted growth rate (14.6%) is about one-third of California's forecasted growth. San Francisco County will grow only by 1.9 percent during this period. Of Bay Area Counties, only Alameda (40.5%) is expected to keep pace with overall state growth.¹
- Fundamental shifts are occurring among age categories in San Mateo County. From 1990 to 2004, the proportion of residents aged 25 to 44 as a share of the county's population decreased from 35.9 percent to 29.8 percent while the proportion of 45 to 64-year-old increased from 20.4 percent to 27.1 percent. The 20 to 24-year-old age range, a prime college-going cohort decreased from 7.2 percent to 5.2 percent.²
- In the gap between aging baby boomers and "echo boomers" (those born between 1982 and 1995) will impact San Mateo County in fundamental ways by 2030. Offset by strong growth among Hispanics, these age ranges nonetheless will experience steep declines in overall numbers 34-35 (-13.8%), 35-39 (-14.8%), 40-44 (-13.6%), and 45-49 (-11.9%). Declines are steepest among Whites and somewhat less pronounced for Asians.³
- Nationally, two-thirds of the 50 largest metropolitan areas had fewer young adults in 2000 than in 1990. These cities now realize that they've done little to appeal to the labor force that will shape their economic future: educated 25- to 34-year-olds.⁴ San Mateo County is squarely in this category.
- Eight percent (8.3%) of persons aged zero to 17 live in poverty in San Mateo County. The corresponding statistic for California is 19.6 percent.⁵ According to GIS maps there are pockets of extreme wealth in the area surrounding the College as well as pockets of little wealth.
- San Mateo County's racial and ethnic composition is undergoing marked change. From 1990 to 2004 the proportion of the county's White population decreased from 71.9 percent to 58.8 percent. The county's Black population decreased by half from 5.4 percent to 2.5 percent. Asians increased from 15.5 percent to 22.4 percent of the county's population. Citizens identifying themselves as "some other race" increased from 5.4 percent to 11.0 percent. Persons of Hispanic or Latino ethnicity increased from 17.6 to 21.9 percent over this time.⁶
- Two-thirds (66%) of the 57,500 immigrants to the United States residing in the Bay Area in 2003-04 were from Asia. Other regions included Europe (9.2%), Mexico (9.3%), Central America (5.8%), Africa (2.6%), Oceania (1.7%), Canada (1.3%), and the Caribbean (0.3%). The top five countries were: China, PR (9,074), India (8,755), Philippines (6,590), Vietnam (4,660), and El Salvador (2,067).⁷

- English was the predominant language of six of 10 San Mateo households in 2004. Other languages spoken at home include Spanish (17.6%), Asian (14.9%), and other Indo-European (5.0%). By language group, these households reported that they spoke English “less than well”: Spanish (46.7%), Asian (38.8%), and other Indo-European (25.6%).⁸
- More than a sixth of the young adults (18- to 24-year-olds) in California have less than a high school education. This group, estimated to number 980,000, is larger than the share of new students predicted to enter the state’s community college system as a result of Title Wave II.⁹
- Fewer than 18,000 General Education Diplomas (GEDs) were awarded to California 18- to 24-year-olds in 2000. The 3.1 percent ratio of GED awards to those with less than a high school education (18- to 24-year-olds only) places California at 49th of the 50 states on this measure.¹⁰
- The education level of the adult population has been on an upward trajectory in San Mateo County since 1990. By 2004 there were fewer proportions of county residents at the lowest levels of education and more at the highest levels. The proportion of adults with bachelor’s degrees or higher in 2004 is 43.3 percent compared to 31.3 percent in 1990. Both statistics are significantly higher than corresponding California and national statistics.¹¹
- Although San Mateo County’s median family income statistic exceeds both the California and United States average, wealth is not distributed evenly throughout the County. Low-income Census Tracts are located near Daly City, Colma, and San Bruno. Higher income Census Tracts near Skyline are located near Hillsborough and San Mateo and across the county border in several Census Tracts in San Francisco County.¹²
- The Skyline College service area can be segmented into psychographic profiles that are depicted as upscale with respect to style and trends. Other segments in the College’s service area are retirement community-minded. Still others are marked by an interchange with the international marketplace. The College should tailor learning experiences to these segments in ways that fit their lifestyle.¹³
- Eight percent of the population of San Mateo County aged 16 to 64 report a disability. Skyline college will need to continue to provide appropriate assistance to students who enroll with disabilities.

Employment

- In the United States, it takes two incomes to provide the standard of living that one income provided 30 years ago.¹⁴ Work time, family time, and traffic congestion all conspires to impact community college attendance by working-age adults.
- An impending national labor shortage is predicted for the year 2010 when there will be 167.8 million available jobs in the U.S. economy but only 157.7 million workers to fill them. Most of these jobs will be in the service sector.¹⁵
- Nearly 80 percent of all new jobs created to 2012 in the United States require an Associate's degree or less. The predominate mode of training employees is "on the job training," suggesting that community colleges need to partner closely with private employers to provide efficient training programs. In the main, 8 of 10 new jobs do not require a bachelor's degree.¹⁶
- There are marked differences in the California workforce. Among working-age adults, about 52 percent of Hispanics/Latinos do not have a high school credential, compared to 8 percent of whites. At the other end of the spectrum, only 12 percent of working-age Hispanics/Latinos have a college degree, compared with 46 percent of working-age whites.¹⁷
- If, as could occur, the average educational level of the California workforce declines, California's personal income per capita is projected to drop from \$22,728 in 2000 to \$20,252 in 2020—a decline of 11 percent or \$2,476 (in inflation-adjusted dollars), the largest drop in the nation. This projection reverses a trend that saw the state's per capita income grow by 30 percent from 1980 to 2000.¹⁸
- The ways in which Americans work are shifting dramatically. Leading this shift is the nearly 38 million Americans in many diverse fields who create for a living, known as the "Creative Class." The rise of the Creative Class, now thought to number more than 30 percent of the total U.S. workforce, has and will continue to produce fundamental economic change.¹⁹ In 2006, it is also more than likely that the jobs Associated with the Creative Class may be outsourced to overseas destinations, thus impacting Skyline College's interface with the job pipeline.
- Within a 5-mile radius of Skyline College's campus employment is dominated by service-oriented businesses (38.8% of all employers) and retail trade (21.0%). In a ten-mile radius, business sectors with the largest numbers of employees (greater than 5,000) include health services (38,830), education and libraries (24,242), eating and drinking establishments (17,908), manufacturing (15,715), wholesale trade (15,554), construction (13,469), transportation (12,730), and government (12,533), miscellaneous retain (9,673), food stores (8,994), motion pictures and amusements (8,072), real estate, holding and

investments (7,226), furniture and home furnishing (6,350), automotive services (5,798), and banks, savings & lending institutions (5,393).²⁰

- In comparison with California, San Mateo County is home to a significantly higher proportion of managers and professionals (42.2 v 35.3%) and fewer blue collar workers (6.3 to 11.3%).²¹
- Forty-two percent (n=148,003) of San Mateo County's work-age residents commute to jobs outside the county. Of this number, almost 72 thousand commute to San Francisco County; 55 thousand commute to Santa Clara County; and nearly 15 thousand commute to Alameda County.²²
- An almost identical number of workers commute to San Mateo County (n=147,283) as commute to work outside the County. Forty-three thousand commute from San Francisco County; 40 thousand commute to Santa Clara County; and 33 thousand commute to Alameda County.
- The area surrounding Skyline College continues to develop as a center for high technology. The College plays a role in preparing workers for the biotechnology industry, having awarded 84 certificates in this area. A recent survey indicates that there are currently 5,446 workers in biotechnology throughout the Bay Area, 29 percent of which require an Associates degree or less.²³ Statewide, 1,600 biological technicians will be needed through 2012.²⁴
- Recent hiring in Silicon Valley indicates the beginning of a rebound. A survey of CEO's of technology firms indicates that more than half (56%) expect hiring to be better in 2006 than in 2005 (37%).²⁵
- Oracle Corporation in Redwood City announced plans in mid-February, 2006, to eliminate 2,000 jobs or about 3.5 percent of its workforce.²⁶
- It is estimated that traffic congestion in the San Francisco-Oakland area resulted in 72 hours of extra travel time for peak period travel in 2003, up from 30 hours in 1982. The total annual cost of congestion is calculated at \$2.6 billion or \$631 per person.²⁷ The latter statistic is nearly identical to the cost of tuition and fees to attend Skyline College.

Housing

- Median house prices in San Mateo County continue to increase. In 2000, the median price was \$469,200. By 2004 the median price was \$678,433, an increase of 44.6 percent over four years.²⁸ Signs are, however, that a slowdown in the housing market may be looming; Bay Area home sales plunged in January 2005 to the lowest level in five years.²⁹

- The median monthly rental price for a 2-bedroom apartment in San Mateo County is \$1,536. Observing the principle of not paying more than 30 percent of gross income for shelter, it would take \$61,440 annual income to afford this apartment.³⁰

Secondary Schools

- At the national level, only 68 percent of ninth graders graduate from high school in four years, and only 18 percent complete an Associate's degree within three years after entry into a community college or a bachelor's degree within six years of enrolling in a 4-year college. Baccalaureate degree attainment rates for Latino and African-American young adults—the fastest-growing population groups in our country—are less than half of those for white and Asian-Pacific Islanders.³¹
- The number of first-time freshmen entering Skyline College from feeder high schools since 2000 has declined by 9.4 percent.³²
- El Camino High and South San Francisco High, the top two "feeder" high schools to Skyline College, obtained API (Academic Performance Index) scores of 735 and 711, respectively in 2004-2005. The statewide API performance target for all schools is 800. One feeder school in Skyline College's Mills High School in Millbrae exceeded this performance target. The average API for Skyline College's top 10 feeder high schools was 758.
- Early college models in use by leading community colleges have shown great promise in increasing the number of low-income students who will access higher education. This model bears serious consideration by Skyline College and its partner secondary schools.³³

Technology and Learning

- Incoming students to higher education are increasingly computer literate and carry expectations for colleges to enhance their access to new technology. Technology-based course delivery will require increased resources.
- It is estimated that five million college students are now taking courses online.³⁴
- Almost 40% of schools offering face-to-face Associates' degree programs also offer them online.³⁵
- Today's teenagers are unlike any previous generation in their exposure to technology; a recent survey indicated that 100 percent use the internet to seek information, 94 percent use the internet for school research, 41 percent use email and Instant Messaging to contact teachers and schoolmates about school work, 81 percent email friends and relatives, 70 percent use Instant Messaging to keep in touch and 56 percent prefer the internet to the telephone.³⁶

- Also known as “Millennials,” children born between 1982 and 2002, approach learning in new ways. Their preference is to learn: with technology, with each other, online, in their time, in their place, and by doing things that matter.³⁷
- The \$100 laptop computer now promised for developing countries will drive down further the cost of wireless educational networking in the United States. Florida is now considering a statewide purchase of these laptops for their community college students.
- There is clear evidence of a digital divide based on education. Twenty-nine percent of American adults who have not graduated from high school have access to the Internet, compared with 61 percent of high school graduates and 89 of college graduates.³⁸
- The digital divide is also reinforced by age. Twenty-six percent of Americans aged 65 and older go online, compared with 67 percent of those of those aged 50-64, 80 percent of those aged 30-49, and 84 percent of those aged 18-29.³⁹
- Race is also influences the digital divide. Fifty-seven percent of African-Americans go online, compared with 70 percent of whites.⁴⁰

Higher Education and Public Policy

- The Western and Southern states, which are experiencing rapid growth in their college-age populations, will have ballooning numbers of qualified students clamoring at the doors of two-year colleges for access to higher education. This has already happened in California.
- Between 2004 and 2010, California is expected to see demand for higher education rise by more than 700,000 students--roughly comparable to total college enrollments in Illinois. Capacity questions for the state's community colleges, in particular, could worsen because of California State University's decision to cap enrollment, a first for the system.⁴¹
- A recent report estimates that 1.5 million students who would probably have been awarded Pell Grants in 2003-04 did not apply for them, up from the estimated 850,000 who missed out on aid in 1999-2000. The number of low-income students who did not file for federal financial aid rose from 1.7 million to 1.8 million, or 28 percent of low-income students.⁴² The potential for Skyline College to recruit students who may not realize that they can receive Pell Grants should not be overlooked as a way to increase enrollment, especially among minority groups.
- Just over one-half (52 percent) of all undergraduates are independent students and represent roughly two-thirds of community college students (64 percent) and part-time students (67 percent) in American Higher Education. The needs of these students—who are considered by the federal government to be financially independent of their parents--frequently take a back seat to those of traditional undergraduates.⁴³

- Of the 20 million students enrolled at degree-granting colleges in 2015 in the United States, one out of 10 now attends a for-profit college. That 10-percent market share is more than double the 4-percent figure of a decade ago.⁴⁴
- Abolishment of the federal 50-percent rule--which heretofore has prevented any college that enrolls more than 50 percent of its students at a distance or provides more than half of its courses via distance education from participating in federal student-aid programs--will spur a boom in online programs at traditional colleges, as well as the creation of for-profit businesses specializing in cybereducation.⁴⁵
- Nationwide, the numbers and percentages of community college transfers students are higher at elite 4-year institutions than at their private counterparts. Overall, however, access for community-college transfers is quite limited at public institutions. These data suggest a median enrollment rate of community-college transfer students at elite public institutions of less than 4 percent.⁴⁶
- The Bush Administration recently has recommended a \$500 million cut in federal funds for vocational education in 2006-7, from \$1.3 billion to \$800 million. Excluded are \$105 million tech-prep education state grants, five million for tech prep demonstration funds and \$23 million for incarcerated youth education.⁴⁷ Lack of tech-prep funds, in particular, will disadvantage community college efforts to reach into secondary schools.
- Evolving accreditation standards are aggressive in gearing colleges toward developing clear and measurable learning outcomes. In addition, the emergence of diverse student populations in age, goals, background, and economic status requires colleges to explore a variety of teaching modalities and hiring practices.
- The Bush administration has appointed a commission that is considering standardized testing for college students. The testing would be meant to measure the quality of higher education in the United States.

Community Colleges

- The demand for higher education in California is projected to grow by more than 700,000 students in California in this decade. Three-fourths of this growth will occur in the state's community colleges.⁴⁸
- Enrollment by first-time freshmen aged 19 and younger is trending upward in California community colleges⁴⁹
- Nationwide, community colleges are meeting unprecedented demand for their services in the face of flattened traditional public financial support, forcing them to seek new revenue streams to maintain and expand programs.

- Private donations to community colleges appear to be on the rise as more two-year institutions develop fund-raising programs. In the 2003-4 fiscal year, 100 public two-year institutions surveyed by the Council for Aid to Education raised \$122.4-million, up from the \$93.3-million raised by 86 community colleges surveyed the year before.⁵⁰
- It is estimated that California community colleges turned away some 175,000 students in 2003-4 during the state's fiscal crisis -- and resulting budget cuts and tuition increases. Community colleges experienced a 1.7-percent reduction in their state appropriations in 2003-4.⁵¹
- California community colleges received a 12.4 budget percent increase in 2005-06 over the previous year, more than double the public appropriations to the University of California and California State University systems.⁵²
- There is a rising demand for a host of services that community colleges can provide. There is already unmet demand for instruction in English as a second language, and it will be further fueled by an expanding immigrant population, which has reached the highest proportion of the U.S. population in three-quarters of a century.
- Within a 60-mile radius of San Bruno there are 59 postsecondary institutions at the two-year level or less. These include 28 public institutions, 11 not-for-profit schools, and 20 for-profit providers. Community colleges are by far enjoy the largest market share among these institutions by enrolling more than 300,000 students compared to nearly 13,000 for all other providers.⁵³

PLANNING ASSUMPTIONS

Planning assumptions use the information from the environmental scan to establish a foundation for the Education Plan. The assumptions developed below will help guide the Skyline College's efforts to respond to changes in its internal and external environments.

- Skyline College's share of current, key markets are tenuous. The College's share of the high school market appears to be eroding and the demographic projections predict a declining pool of adult learners. The College will need to develop partnerships and new market niches to maintain current levels of enrollment. Student recruitment and retention will continue to grow in importance.
- Although San Mateo County is affluent and well-educated, there are places within its borders where the opposite is true. The divide between "haves" and "have-nots" within San Mateo and San Francisco Counties will continue to challenge Skyline College.
- Planning is a necessity for the College to approach its future effectively. All planning will place the needs of students and potential learners first.

- Planning documents should be clear, concise, coherent, and available to all major stakeholder groups. All plans should contain “success factors” for strategies that are developed so that stakeholders can measure progress.
- Although California community colleges recently received an increase in state appropriations, future allocations are not guaranteed and it is likely that competition for these dollars will be intense.
- Skyline College will need to become increasingly entrepreneurial to meet the demands that will be placed on the institution. The College will need to raise resources from traditional streams as well as to develop new partnerships.
- A recent series of group interviews with students yielded important information for the College to consider, including the fact that most students indicated that they chose Skyline College because of convenience. After they arrived, however, most found unexpected opportunities including quality instruction in a caring atmosphere. The College will continue this tradition.
- Skyline College will need to continue to document and share outcomes measurements in the format that is required by the state, but will also need to demonstrate its contributions in new and creative ways that provide a longitudinal view of student success.
- To meet local needs, the College’s mission will be comprehensive and will include the transfer and general education function as well as the career and technical education and basic skills functions.
- New students will want course choice and convenience. When alternative providers are clearly available, they will make their choices about institutions based on these factors.
- Younger, incoming students will be “digital natives.” They will be computer literate and expect more from technology at Skyline College.
- Learners must be prepared to meet the rigors of a highly competitive global marketplace. The College will seek to establish multiple pathways to prepare students to meet this challenge.
- Growth in the use of technology and its rapid obsolescence will result in increasing challenges in the areas of cost while not shortchanging other critical campus areas.
- Students of color will represent a higher proportion of the College’s population in the future, and their needs and interests must be considered fully and addressed appropriately.
- The proportion of disabled learners seeking services from the College will grow.

- The College will continue its commitment to reach under-served populations and to respond with appropriate services and programs.
- Skyline College will want to maintain a “culture of evidence” while building a “culture of inquiry” in which data move out of the limelight and practitioners move to center stage.
- The need for job training programs, skills certificates, and other programs with fewer general education requirements will increase. Those who have obtained these skills may seek opportunities for career development, general education and lifelong learning that can lead to higher levels of degree attainment.
- The need is increasing for community colleges to form partnerships with local industry, service providers, including health providers, high schools, community-based organizations, and governmental organizations.
- Short-term (occupational/certificate/licensure) students and part-time students will place the same demand on student services as full-time students. Workforce development programs will require even more intensive demand for support services.
- New facilities will need to be constructed and existing facilities renovated to accommodate student need. However, maximizing present facilities with creative scheduling and course content should be the first order of business. When new facilities are constructed they will need to be scalable to meet the needs of learner population and the teaching styles utilized at Skyline College. They should be well-equipped to parallel technological advances, and to match a variety of learning activities and modes.

CURRENT STATUS

This section of the report examines the current status of College operations from the perspective of students currently served and demographic trends within the College's service area.

Enrollment History

Skyline College's recent enrollment is trending downward in both student headcount and full-time equivalent students (FTES).

Over the past two full academic years, the relationship between the number of credit hours and number of students has shifted which may suggest the start of a trend toward more full-time students (Figure 1). Headcount enrollment reached a peak in 2002-03 while FTES reached its peak in the next year. The College reports that cutbacks in state appropriations after the 2002-2003 year resulted in corresponding decreases in the number of class sections taught by adjunct faculty, especially in the evening hours. The San Mateo County Community College District experienced a 2.5 percent decline in FTES in 2004-05, making enrollment growth in 2005-06 a priority.

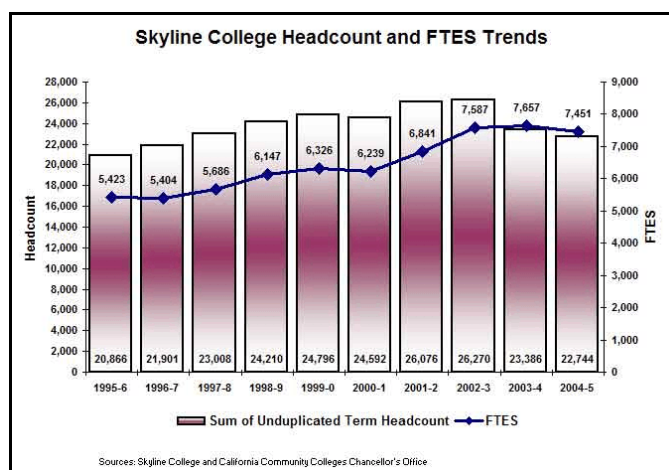


Figure 1

The trend toward full-time student status (Figure 2) is good news for the College's general education and transfer programs that are offered primarily during the day. However, the recent shift away from older students, most of whom enroll for evening hours and on a part-time basis is cause for concern (see Table 1). The adult population in San Mateo County, for example, is undergoing a sharp decline in the 25 to 44-year-old cohort and a corresponding increase in the 45 to 64-

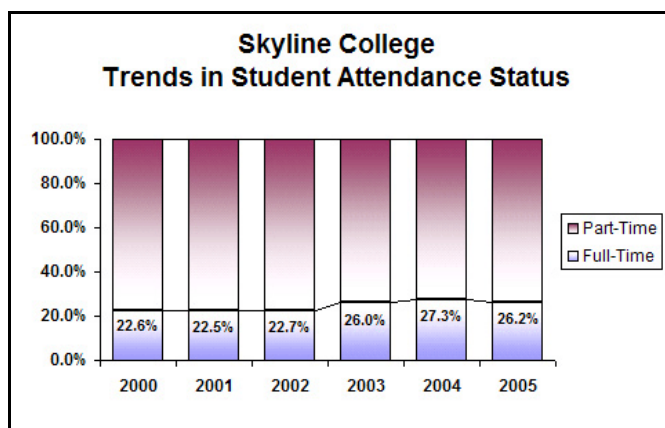


Figure 2

This spells greater competition for young, working adults (those aged 25 to 44) and slightly greater opportunities for older adult enrollment (those aged 45 to 66). The trend away from part-time attendance, therefore, is worth further examination as it applies to the availability of current classes, those programs planned for the future, and the preferences of these learners for convenience and compressed delivery options.

Age Range	Change in Share	Change in Headcount
15-17	-2.4%	-644
18-19	2.0%	351
20-24	4.1%	710
25-29	2.1%	389
30-34	-0.7%	-265
35-39	-0.6%	-215
40-44	-0.9%	-274
45-49	-0.9%	-264
50-54	-0.8%	-247
55-59	-0.1%	-37
60-64	-0.3%	-93
65+	-1.5%	-393

Student Gender and Race/Ethnicity

Overall, the proportion of female to male students has remained constant over the past ten academic years (55.3% female, 44.7% male). In contrast, overall race/ethnicity shifts at Skyline College over the past decade have been more striking and give evidence of the College’s increasing race/ethnic diversity (Figure 3).

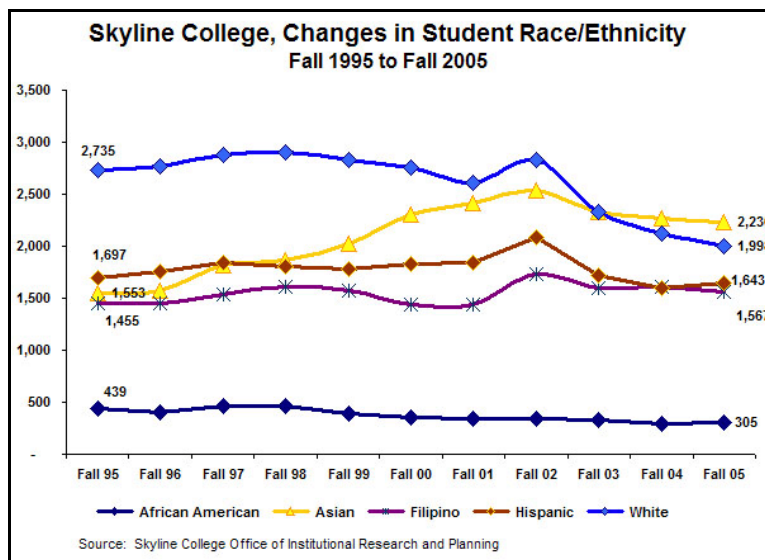


Figure 3

It is likely the College will become even more diverse over the next decade, given the changes in race/ethnicity among the younger population within a 12-mile radius of the main

campus (Figure 4). Hispanics represent the largest share of the younger population from which the College will draw in succeeding years. In contrast, Whites appear poised to constitute the largest share of the population aged 50 and above.

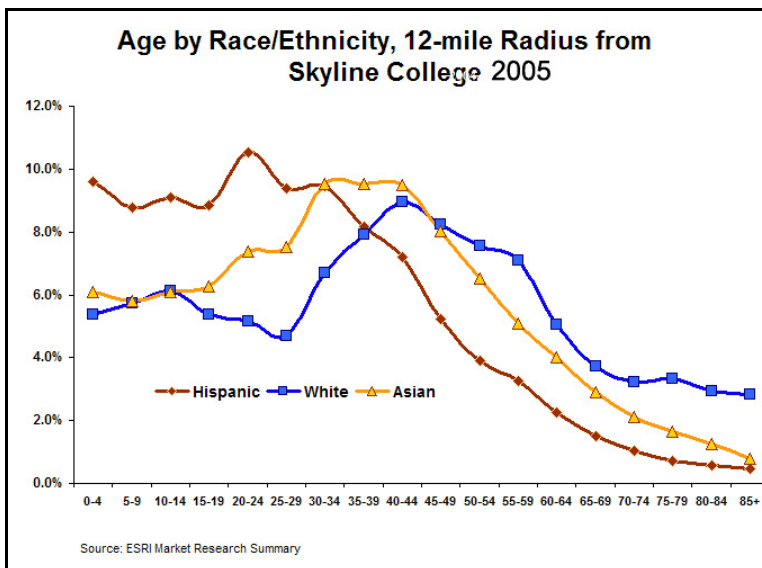


Figure 4

Viewing the combination of demographic factors over the past five academic years can provide a more precise overview of directions that the College may be heading. Figure 5 depicts where the College is gaining ground in combinations of race/ethnicity, age, and gender while Figure 6 displays downward shifts. The most dramatic upward shifts have been among Asian students both male and female aged 25 to 29. Other pronounced upward shifts have occurred among Filipino students, especially for females aged 20 to 24 and males aged 18 to 19, 25 to 29, and 35 to 39.

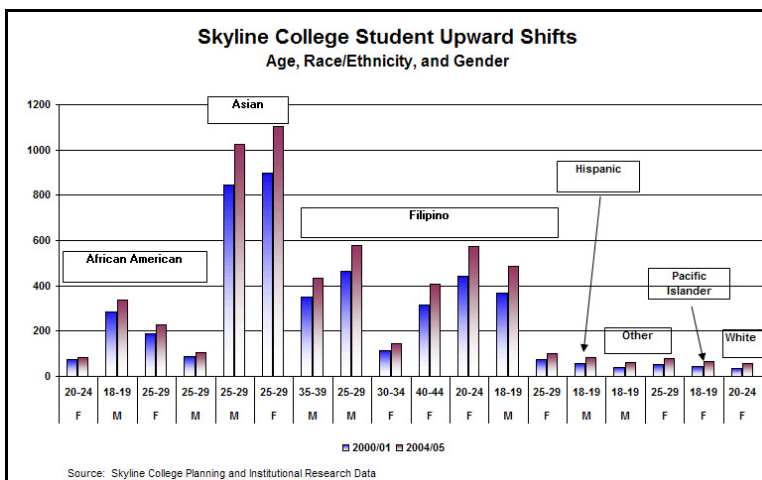


Figure 5

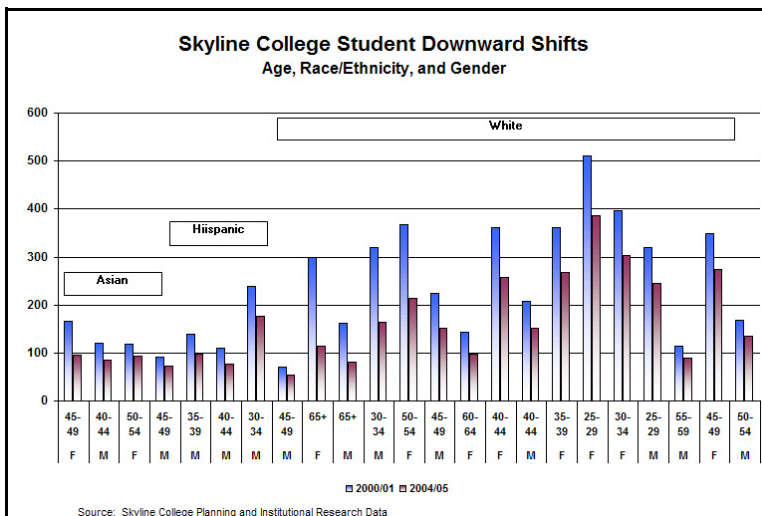


Figure 6

Downward shifts include older Hispanic and Asian students as well more categories of nontraditional (aged 24 and greater) White students.

Secondary Schools

Skyline College has longstanding relationships with area high schools and is now working even more closely with administrators from these schools to create stronger relationships. These activities appear well-advised, given the downward trend in participation rates of recent high school graduates (Figure 7) and, in particular, the College’s yield rate among its top 10 feeder high schools (Figure 8) is eroding. The State of California recently has initiated “high stakes” testing in high schools which may result in greater enrollments at Skyline among those students who desire higher education but lack a secondary diploma.

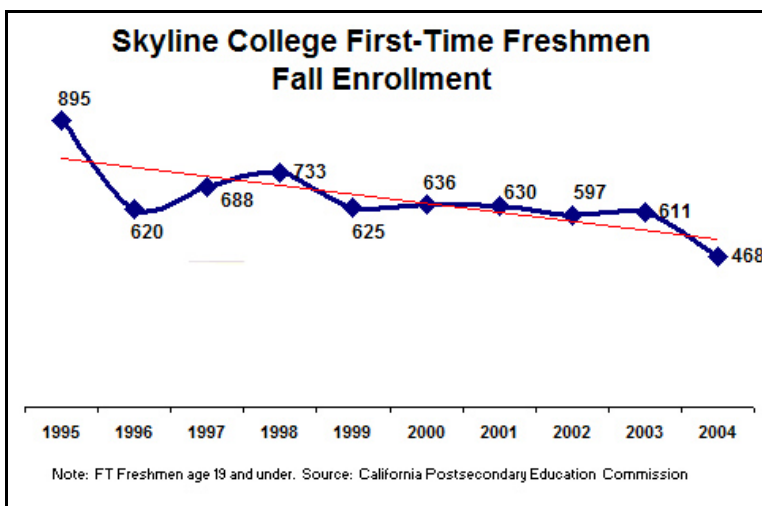


Figure 7

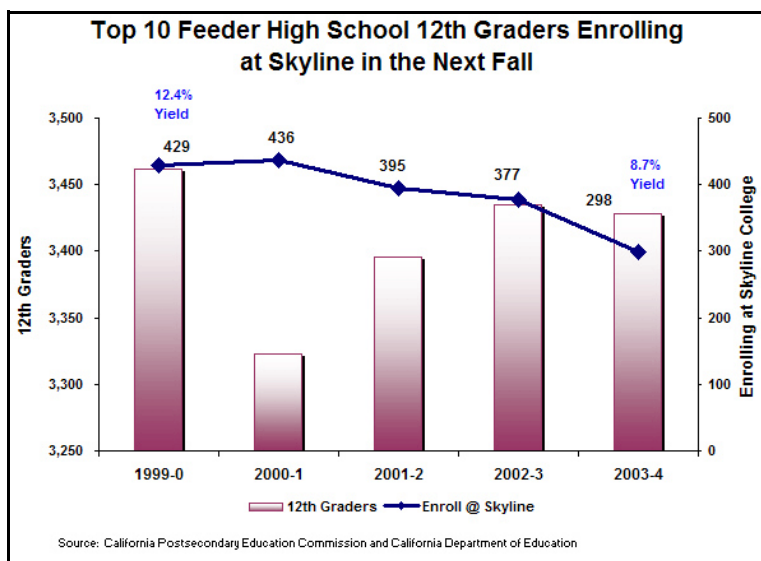


Figure 8

Transfer Students

Skyline College participates in several statewide efforts to improve transfer and articulation between levels of higher education. The Intersegmental General Education Transfer Curriculum (IGETC) represents a common set of lower-division course requirements that satisfy general education requirements at the University of California System or California State University System. With respect to the transfer of community college majors, Skyline also participates in the statewide Intersegmental Major Preparation Articulated Curriculum (IMPAC) project that promotes faculty dialog among discipline faculty representing community colleges and 4-year institutions to ensure that a common understanding of preparation for 4-year work and to ensure that community college students do not lose credit for courses upon transfer.

Transfer from Skyline College is dominated by San Francisco State University (Table 2). Other Bay Area public institutions represent individually about one-tenth of the transfer activity generated by Skyline students attending SFSU. Total transfer activity since 2003-04 shows the same pattern of decline as headcount enrollment.

	1995-6	1996-7	1997-8	1998-9	1999-0	2000-1	2001-2	2002-3	2003-4	2004-5
San Francisco State U	237	270	202	268	273	238	297	322	285	257
UC, Davis	25	20	25	27	21	23	23	42	37	41
San José State U	28	31	26	43	31	45	44	38	35	25
CSU, East Bay	37	34	26	25	31	35	23	26	29	24
UC, Berkeley	21	23	15	18	15	16	22	23	18	19

The largest identifiable discipline area for transfers from Skyline College is in business/management, followed by psychology, accounting, agricultural business/management, biology, criminal justice, history, and nursing (Figure 9). The College reports that transfer rates by ethnicity are somewhat reflective of the student population and their education goal.¹ On average 2 percent of Skyline's Black students declare transfer as an education goal and 2 percent of the total who transferred between 2000-2004 were Black students. Similarly, 8 to 12 percent of the Hispanic students declare transfer and 14 percent of the total over five years were Hispanic students. The greatest difference in this trend, however, was seen among Asian students in which 12 to 16 percent declare transfer but 31 percent of the total over five years were Asian.

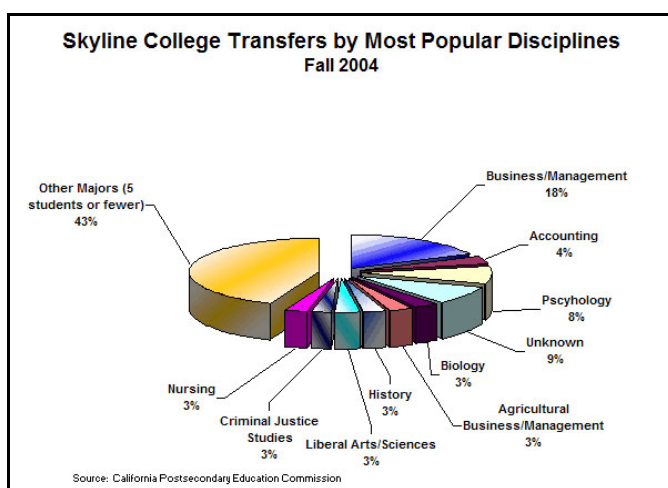


Figure 9

Cost of Attendance and Financial Aid

One pervasive myth in higher education is that California community colleges are free, or so low in cost that any prospective student can afford to attend. That may have been true several decades ago, but the total financial outlay (known as Cost of Attendance and including tuition/fees, books, living expenses, and transportation) is now significant, especially for low-income students and their families. In fact, California community colleges are slightly more expensive for students than the national average (Figure 10).

The Cost of Attendance at Skyline College is more than \$18,000 per year for a full-time student living independently off-campus, probably owing to the housing market in San Mateo County, and about \$6,700 for a full-time student residing with her or his family (Table 3). Student enrollment fees in the District have increased 136 percent during the past two years and may be a key reason for enrollment declines at Skyline College.

¹ Skyline College Institutional Almanac, 2006

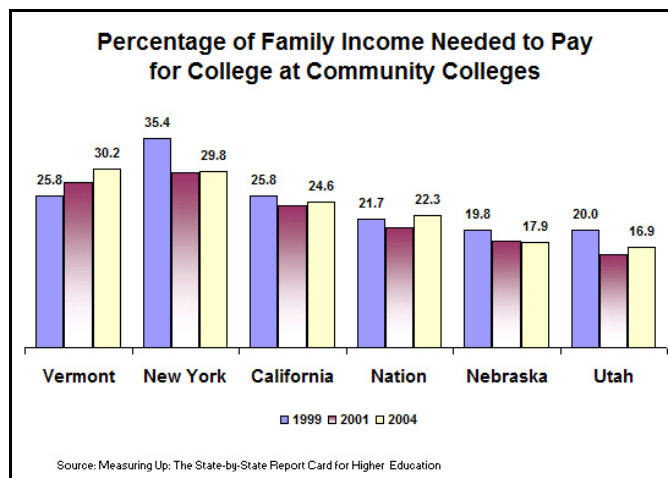


Figure 10

Table 3 Skyline College Academic Year Prices for Full-Time, First-Time Undergraduate Students			
	2003-04	2004-05	2005-06
Tuition & fees			
In-state	\$501	\$676	\$768
Out-of-state	\$4,684	\$4,876	\$5,500
Books and supplies	\$1,224	\$1,224	\$1,260
Off-campus			
Room and board	\$11,430	\$11,430	\$11,430
Other expenses	\$4,710	\$4,710	\$4,726
Off-campus with family	\$4,800	\$4,726	\$4,710
Source: National Center for Education Statistics, College Opportunities On-Line			

The Cost of Attendance can be offset, in part, by financial aid for eligible students. Low-income students qualify for need-based aid including the federal Pell Grant and the state's Board of Governor's Fee waiver (Table 4). Few Skyline College students appear to pursue loans to finance their educations.

Type of aid	Percentage of students	Average amount
Federal grants (scholarships/fellowships)	28	\$3,352
State/local grants (scholarships/fellowships)	36	\$721
Institutional grants (scholarships/fellowships)	3	‡
Loans to students	1	‡
‡ Data are withheld to preserve the confidentiality of individuals.		
Source: National Center for Education Statistics, College Opportunities On-Line		

Budgets and Resources

Where indicated, the tables in this section utilize data taken from the Integrated Postsecondary Data System (IPEDS) collection and Peer Analysis System operated by the National Center for Education Statistics. Institutions report these data to IPEDS annually, but there is no oversight for data after they have been submitted to the federal government. Therefore, although these data have importance, their lack of external verification suggests that they should be approached as indicators of the concepts represented, and not regarded as data that is irrefutable. Skyline College revenues and expenditures are summarized in Table 5.² About 95 percent of the College's total expenditures are for salaries and employee benefits. The remainder is for operating expenses and capital outlay (\$839,407 and \$86,691, respectively, budgeted for 2005-06).

Revenues	
Tuition and Fees	\$2,524,127
Federal Operating Grants and Contracts	\$2,425,521
State Operating Grants and Contracts	\$3,927,637
Local/Private Operating Grants and Contracts	\$625,752
Sales and Service	\$2,061,032
Expenditures	
Instruction	\$12,755,288

²According to the National Association of College and University Business Officers (NACUBO), Instruction includes faculty salaries, equipment and supplies, and secretarial support. Academic Support includes libraries, galleries, educational media, academic computing support, academic administration, academic personnel development, and course and curriculum development. Institutional support includes executive management, fiscal operations, general administration, administrative computing support, public relations, and development.

Academic Support	\$575,734
Student Services	\$3,301,149
Institutional Support	\$4,334,570
Operation Maintenance of Plant	\$2,265,783
Auxiliary Enterprises	\$2,222,234
Other Expenses Deductions	\$2,745,758
Source: IPEDS Peer Analysis System	

IPEDS data also were used to compare Skyline College with 26 peer institutions in California.³ Table 6 offers a comparison of revenues for Fiscal Year 2004 and Table 7 offers a comparison of expenditures by function.

Source	Skyline College	Median of Comparison Group
State and local appropriations	57%	61%
Tuition and fees	6%	6%
Other Core Revenues	37%	32%
Source: IPEDS Peer Executive Tool		

Category	Skyline College	Median of Comparison Group
Instruction	44%	41%
Academic support	5%	7%
Institutional support	15%	12%
Student services	11%	12%
Other core expenses	25%	27%

³ The comparison group includes: Canada College, College of Marin, College of San Mateo, College of the Desert, College of the Redwoods, Compton Community College Contra Costa College, Hartnell College, Imperial Valley College, Las Positas college, Los Angeles Southwest College, Los Medanos College, Mendocino College, Merced college, Miracosta College, Mission College, Napa Valley College, Ohlone College, Taft College, Victor Valley College, West Los Angeles College, Yuba College. These institution are comparable in size to Skyline and report their data to IPEDS according to GASB standards thereby permitting accurate comparisons. Convention holds that size is the first consideration when selecting comparative institutions. Other, subsequent selection criteria might include student demographics, total budgets, etc. A more detailed peer analysis is a direction the College may wish to pursue to confirm the initial data presented here.

Tables 6 and 7 indicate that Skyline College receives less state and local appropriations than comparative institutions, requiring the College to rely more heavily on “Other Core Revenues,” such as state operating grants and contracts, local/private operating grants and contracts, and sales and services from auxiliary operations to make up the difference. These data also suggest that Skyline College spends more per FTES on instruction and institutional expenses than its comparators. For reasons noted above, these data should not be regarded as the final word for those interested in knowing the root cause of these differences. Rather, they should be treated as a starting point for further understanding strategic financial choices. Finally, Skyline College does not report expenditures for institutional scholarships and grants in FY 2004; sixteen of the 26 comparators reported such expenditures. Future revenue raising on behalf of the College could carefully examine the possibility of creating institutional scholarships as a way to target future enrollment. It is also clear that additional entrepreneurial activities are imperative if the College is to fulfill its basic mission of providing quality instruction.

Faculty Resources

During the Fall 2005 semester, 93 full-time faculty and 211 part-time faculty delivered 897 courses to a duplicated student count of 21,837 enrolled in one or more classes. Table 8 displays instructional trends in sections and enrollment since Fall 2001. Figure 11 depicts faculty resource use in class sections by time of day.

	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005
Total Sections	978	1042	833	837	897
Total Census Enrollment	24,022	27,632	23,960	22,350	21,837

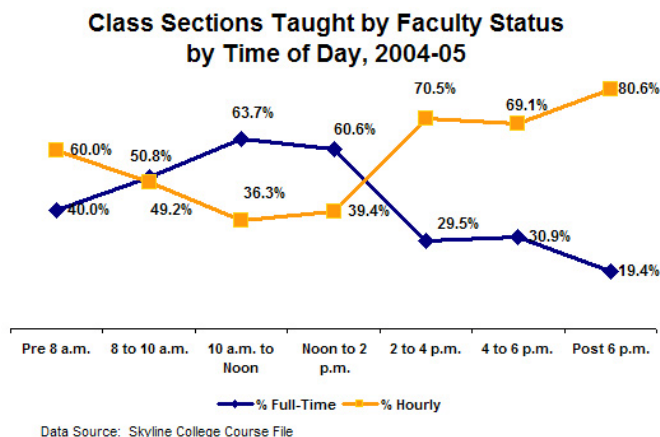


Figure 11

The effect of reduced sections can clearly be tied to enrollment decreases noted earlier. At the same time, Skyline College has maintained a high level of instructional productivity and efficiency (Table 9). The College's average load of 568 exceeds the statewide benchmark of 525 by 8.2 percent.

Academic Year	Census	End of Term Enrollment	FTEF	FTES	WSCH	Load	Sections
2000/01	55,381	45,448	377.95	6,451.47	193,544	512	2252
2001/02	59,406	48,722	394.50	7,123.83	213,715	542	2383
2002/03	62,032	51,274	380.83	7,529.65	225,890	593	2284
2003/04	54,610	44,964	344.23	7,043.73	211,312	614	1978
2004/05	53,957	44,658	359.34	6,987.65	209,630	583	2044
Totals & Average	285,386	235,066	1,856.84	35,136.33	1,054,090	568	10941
Source: Skyline College Institutional Almanac from SMCCCD Data Warehouse							
Census: Number of duplicated headcount at final census. End of Term Enrollment: Number of duplicated headcount at the end of the term. FTEF: Total number of full time equivalent faculty assigned. FTES: Total number of full time equivalent students enrolled at first census. WSCH: Weekly student contact hours generated by census enrollments. Load: The ratio of WSCH to FTEF, used to measure productivity. Sections: Total number of sections offered per semester							

Degrees and Certificates Awarded

Over the past decade, formal awards appear to be trending away from Associate of Arts degrees and toward Associate of Science degrees. Certificates requiring less than 6 to 17 hours experienced rapid growth (Figure 12). Most of these short-term certificates were awarded in the automotive service program. Other certificate programs producing a comparative large number of graduates over the past two years include paralegal and surgical technology. Among Associate degrees, a comparatively large number of Associate degrees were awarded in business, early childhood education, liberal arts, respiratory therapy, and university studies. A complete compilation of degrees and certificates awarded over the past 5 academic years can be found in Appendix C.

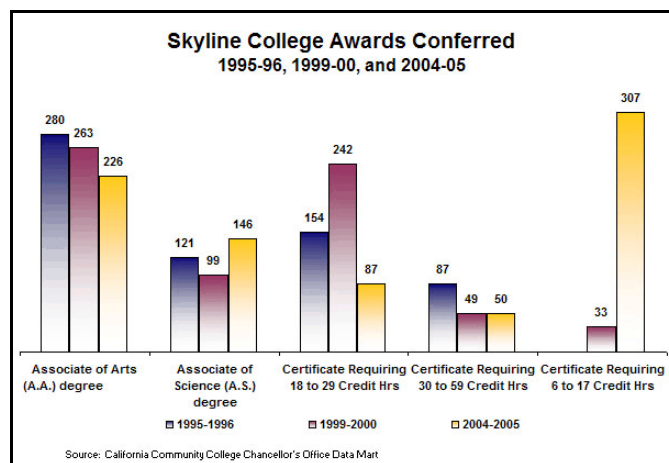


Figure 12

Special Programs

Skyline provides diverse support for diverse learners. These programs include CalWORKS; Disabled Students, Extended Opportunity Programs and Services (EOPS); Puente (Spanish for “bridge”); Math, Engineering, & Science Achievement (MESA); Kababayan (focuses on the Filipino and Filipino American student experience), African-American Success Through Excellence and Persistence (ASTEP), and Women in Transition. These programs are a critical part of the fabric of the College as it focuses on services for students of color, low-income, and disabled students.

Developmental Education Courses

Enrollments in developmental education courses are trending generally downward at Skyline College. This runs counter to what is known about the preparation of high school graduates, in general, in California and nationally. Part of the explanation may be that Skyline lacks a comprehensive developmental education program that feeds into certificates and degrees. The recent exception to the downward trends observed in basic skills are mathematics and reading, the former of which attributes college-wide enforcement of algebra prerequisites to lower enrollments in college algebra but perhaps larger enrollments in the developmental math sequence. There are synergies in place that can reverse this trend including the strong student support programs mentioned ahead as well as the results of the College’s history in the First Year College Experience program.

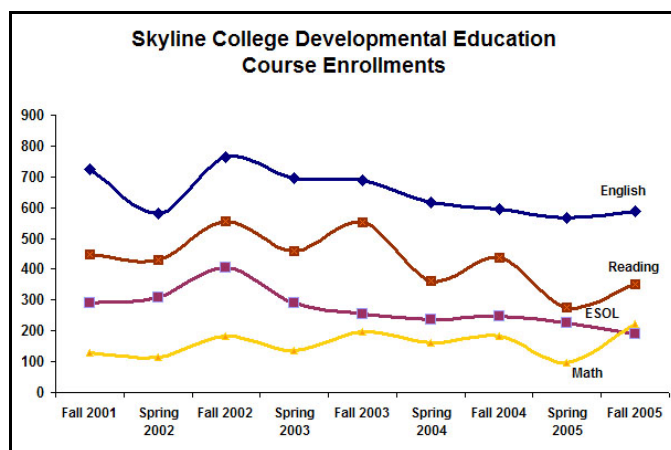


Figure 15

International Trade Development Center

Skyline addresses internationalism in three ways. The first is a non-instructional program in international trade (Center for International Trade Development), the second is an instructional program in international trade, and the third is its International Students program. In addition to an Associate's degree, four certificate options also are available including international trade, international business, import and export, legal aspects of international business, and global business practices. Four other community colleges in a 30-mile radius also host international studies programs, but they do not focus on trade issues to same extent as Skyline's program. This program befits California's ranking as the number one exporting state. The International Trade Development Center holds the promise of great synergies with the instructional program and has sponsored trips to international destinations, especially Brazil, in an effort to link local businesses in San Mateo with trade opportunities. The Center for International Trade is presently housed off-campus in the Chestnut Center.

Center for Workforce Development

Skyline College seeks business and industry partnerships through its Center for Workforce Development (CWD). Among other activities, the Center serves as the administrative arm linking the Biology Department's 12-week certificate program in biotechnology manufacturing with the Bay Area Biotech Consortium Career Pathway project, a partnership that links Skyline College with biotech employers including Genentech, one of the nation's largest biotechnology companies. The Center for Workforce Development also collaborates with the San Mateo County Workforce Investment Board and the California Community College Chancellor's Office's Industry-Driven Regional Collaborative project to identify labor needs in the biotechnology area. The Center is also involved in other "career pathway" programs that seek to bridge gaps in college readiness, especially for English as a Second Language learners, and those seeking preparation to enter the medical field. CWD also is involved in promoting entrepreneurship and is currently partnering with the College's business division and the Daly City Enterprise Center to present a college credit course that teaches

students the essentials of starting a business. Collaboration between CWD and the International Trade Development Center produces many benefits for Skyline College.

Program Vitality

In recent years, instructional programs have trended upward and downward. Tables 10 and 11 depict those programs that have grown or declined by more than 100 WSCH since 2001-02. These data capture the history of programs across academic years. However, caution should be applied in interpreting this information for several important reasons. First, small programs may be influenced by small enrollment swings. Second, the current construction, as noted above, figures prominently in enrollment changes in the cosmetology and physical education areas. Ultimately, these data are key information for the Education Plan and the College's emerging Educational Facilities Plan, especially if current enrollment trends continue. The tables include comments on the impact of facilities on enrollments and the facilities needs expressed by programs. The complete academic year history of Skyline's programs can be found in Appendix D.

Description	Change in WSCH	Magnitude	Comments for Facilities
Computer Applications and Office Technology	(5362.79)	-57%	Largest loss at Skyline College. Largest number of online courses. Program makes extensive use of laboratory space
Health Science	(1964.17)	-53%	Does not include Surgical Tech or Respiratory Therapy. Classroom space impacted.
Dance	(1176.11)	-39%	Impacted by renovation of Building 3. Expected to rebound
English Second Language	(1162.87)	-21%	Appears to be the case in other Bay Area colleges
Phys Ed - Individual Sport	(1115.30)	-70%	Impacted by renovation of Building 3. Expected to rebound
Telecommunications Technology	(974.67)	-25%	Flat since dot.com bust although job demand persists
Phys Ed - Team Sport	(951.80)	-51%	Impacted by renovation of Building 3. Expected to rebound
Cosmetology	(708.64)	-7%	Impacted by renovation of Building 8. Expected to rebound with provision of other space.
Japanese	(548.80)	-100%	Not offered since 2002-2003
Business	(547.51)	-10%	Labor market match indicates need for upward swing
Accounting	(440.15)	-10%	Labor market match indicates need for upward swing
Mathematics	(400.49)	-2%	Related to fewer enrollments in calculus

Description	Change in WSCH	Magnitude	Comments for Facilities
			and college-wide prerequisite enforcement. Cyclical.
Reading	(399.40)	-10%	Program expresses need for additional classroom space and computer assisted tools.
Art	(305.12)	-4%	Program expresses need for additional studio space and classrooms in general to fit morning scheduling mode
Computer Science	(278.56)	-28%	Program experiences low enrollment resulting from inability to offer 2 nd level courses.
Phys Ed - Self Defense	(252.32)	-53%	Impacted by renovation of Building 3. Expected to rebound
Spanish	(182.94)	-9%	With exception of Arabic, all foreign languages are trending downward. Program area expresses the need for a language lab.
Italian	(163.80)	-76%	With exception of Arabic, all foreign languages are trending downward. Program area expresses the need for a language lab.
Humanities	(136.20)	-15%	
Film	(135.90)	-29%	Production classes not offered since 2002-03.
Oceanography	(111.60)	-13%	Lab enrollments have held constant while classroom enrollments have declined
Fashion Merchandising	(107.13)	-18%	Program expresses a need for lab/mock store space
Chinese	(103.80)	-41%	With exception of Arabic, all foreign languages are trending downward. Program area expresses the need for a language lab.

Note: includes only those programs that declined by 100 or more WSCH since 2001-02

Description	Change in WSCH	Magnitude	Comments for Facilities
Biology	4286	47%	Continued growth fitting with increase in biotechnology industry and potential new programs.
Surgical Technology *	2555	106%	Growth program with space issues

Table 11
Skyline College
Programs Trending Upward from 2001-02 to 2004-05

Description	Change in WSCH	Magnitude	Comments for Facilities
			(portable classroom).
Chemistry	1743	52%	Fits with increase in high tech applications.
English	1714	11%	Need for technology labs.
Real Estate	1414	391%	Labor market alignment. Also available sporadically as an Internet option.
Automotive Mechanic Technology	1401	17%	Growth program needing additional lab space.
Emergency Medical Care *	870	88%	Laboratory space required. Currently shares space with Respiratory Therapy.
Respiratory Therapy	780	68%	Strong job outlook. Needs new equipment and lab space.
Early Childhood Education	674	20%	Favorable job outlook. Classrooms and observation rooms requested.
Philosophy	549	33%	No observation.
Speech Communication	539	15%	Speech laboratory with computerized equipment requested.
Psychology	515	13%	Strong transfer program.
Administration of Justice	495	73%	No observation.
Learning Skills	469	23%	Range of support classes, ideally with low average class size.
Physics	386	28%	Currently shares lab space with geology program.
History	383	7%	No observation.
Arabic *	381	185%	Growth area in foreign language.
Economics	294	13%	Growth partially reflects new courses.
Phys Ed - Fitness	260	4%	Further growth anticipated with Building 3 coming back online. Potential for new program in personal training.
Music	228	4%	No observation.
Paralegal Studies	227	34%	Employment outlook favorable
Phys Ed - Varsity Sports	204	17%	Further growth anticipated with Building 3 coming back online.
Electronics Technology	192	188%	Strong labor market demand.
Political Science	185	11%	No observation.
Family and Consumer Science	181	36%	Program desires foods laboratory/kitchen facility.
Journalism	177	44%	Revived AA degree and new certificate program.
* first offered 2002-2003. Note: includes only those programs that declined by 100 or more WSCH since 2001-02			

Current Status of Distance Education

Distance education is a broad term that has been used to incorporate a variety of learning modalities and delivery options. In its most common use, distance education refers to the use of technology to facilitate learning that is independent of time and place. Other descriptors appear in the literature to describe this phenomena and include, for example, eLearning, online courses, electronic instruction, and distributed education. This plan uses the term distance education as a metaphor for technologically-enabled learning options that can be embedded in face-to-face learning experiences as well as techniques used to deliver learning to students at a physical distance from the campus. New and emerging technologies propel distance education and make possible new ways of teaching students.

Although on an upswing, Skyline College offers only a limited number of online courses (Figure 13) and as a consequence generates only modest enrollment in this area (Figure 14). Less than 3 percent of all classes offered in Fall 2005 were available totally online and, of these, most are found outside general education areas. Mounting traffic congestion, the learning preferences of the Millennial Generation, the convenience sought by working adults, the abilities to free up classroom space on campus, and competition in the online learning marketplace strongly suggest that the College will want to look for ways to increase its distance education offerings. Such a path also has great value for traditional classes as technological options become integrated throughout an entire curriculum. All distance education efforts need not be at a distance nor asynchronous. Instructional deans report that mixed mode, or hybrid classes, are popular with students, a trend that is increasingly true across the nation's community colleges. Further engagement in distance education appears to be prudent to meet current and future student needs.

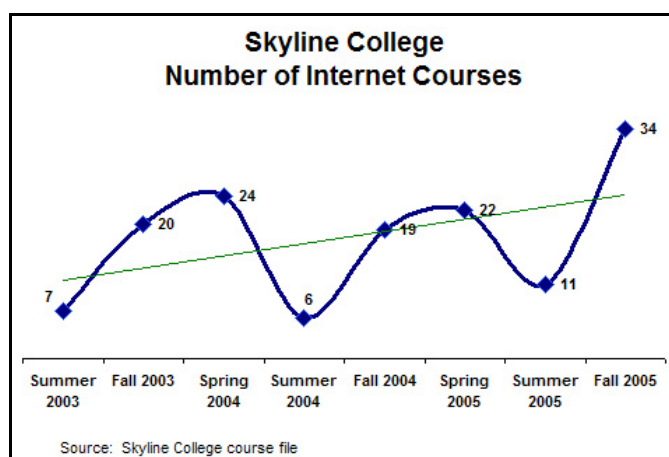


Figure 13

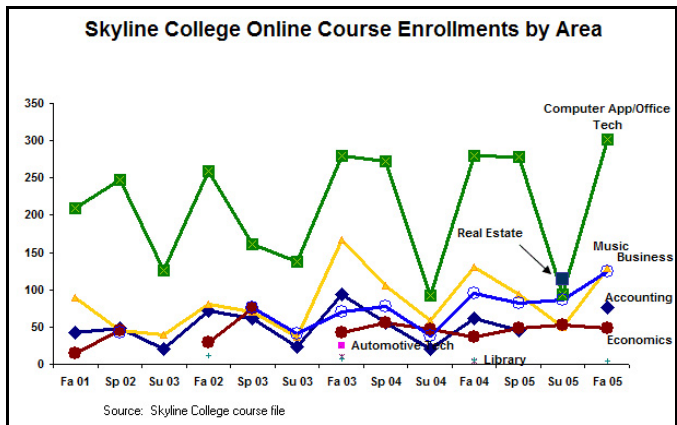


Figure 14

Scheduling of Courses

It is common across higher education institutions that courses are scheduled for peak times in the morning and again in the evening to accommodate working adults and other students for whom morning attendance is not possible. While this pattern is typical of most colleges, it does not maximize the capacity of the College during non-peak hours. The format, scheduling, and delivery strategies for classes and programs could be revisited at Skyline College. Focus group research could be employed with current students to determine whether they would attend classes in the afternoon hours and what types of learning options they prefer. Similarly, prospective students might be surveyed to determine their potential availability and desired learning modes, including preferences for asynchronous learning options.

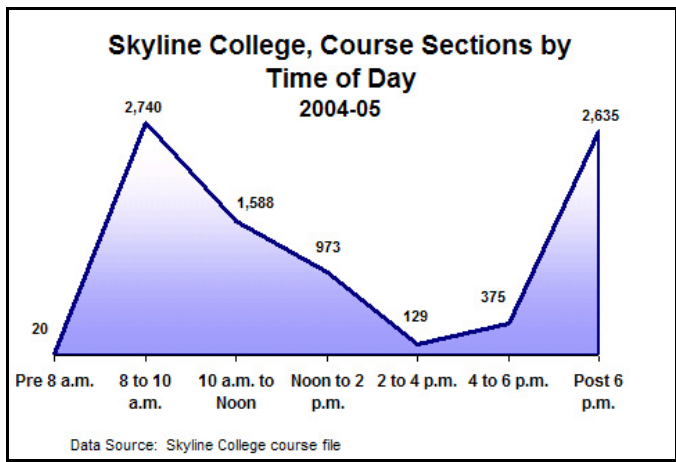


Figure 15

There is much instructional capacity for face-to-face instruction that now exists from noon through 6:00 p.m. and on weekends (Figure 15). Program health can also be traced to availability of classes at times other than the traditional daytime hours. Skyline College offers about as many evening classes starting at 6:00 p.m. as it does morning classes that start between 9:00 a.m and 10:00 a.m. However, not all course prefixes are available in the evening, effectively limiting the access of adult learners to content that may be desirable. A snapshot of this phenomena for fall 2005 indicates that courses in these instructional prefix areas were not available after 6:00 p.m.: Administration of Justice, Developmental Learning Skills, Electronics Technology, Geography, Learning Skills, Physical Education, Physics, Respiratory Therapy, and Social Science.

PROJECTED NEEDS FOR COMMUNITY COLLEGE PROGRAMS

This section of the Skyline College Education Plan focuses on the match between present and future programing. Research from several sources is reviewed that highlights local, California, and national job markets. Labor market information is used as a framework to examine the current mix of programs, including which programs should be strengthened and those that appear not to meet student and labor market needs. Also included in this section are the results of a competitor analysis in which programs offered in a 30-mile radius of the main campus are identified, thereby providing a road map indicating where Skyline College might find new program opportunities. This section concludes with analyses of the current and recommended state of instructional programs at the College.

Future competition will be keen. There are currently 59 land-based postsecondary institutions that award Associate degrees and certificates degrees within a 30-mile radius of the College's main campus. The largest set of competitors are also community colleges. Private providers operate in niche markets and charge students more than does Skyline College. They also offer programs ranging from short-term training of several weeks in duration to full degree programs. This has important implications for Skyline College since, in general, adult students rank quality and convenience ahead of cost, a potential reason why consumers are willing to pay more for learning that is of short duration and/or convenience.

Competition for students also is heightened by the number of distance education providers that have entered the educational marketplace in the last decade. A recent report placed the number of students in the United States participating in distance education provided by both 4-year and 2-year institutions at more than three million.⁴ Distance education opportunities are not just offered by 4-year and 2-year institutions, however. Although precise figures are unavailable, numerous learning enterprises in the for-profit sector run parallel to traditional postsecondary providers, providing alternative routes to certification, especially in information technology. It is estimated that 1.2 million certifications in information technology are earned annually throughout the World. None were earned though traditional course of study or through a traditional institution of higher education.⁵

⁴U.S. Department of Education, National Center for Education Statistics. Distance Education at Degree-Granting Postsecondary Institutions: 2000–2001, NCES 2003-017, by Tiffany Waits and Laurie Lewis. Project Officer: Bernard Greene. Washington, DC: 2003.

⁵Adelman, C. A Parallel Postsecondary Universe: the Certification System in Information Technology. U.S. Department of Educational Research and Improvement, 2003.

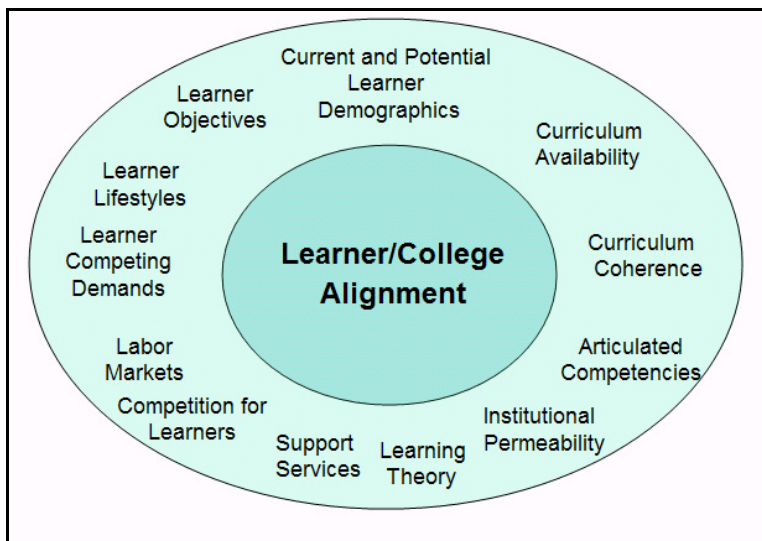


Figure 16
Source: R.A. Voorhees

Learner and College Alignment

When weighing the impact of existing and planned programs Voorhees Group LLC first recommends that colleges examine the alignment between programs and learners. That relationship is illustrated by as Figure 16 and is drawn from field work with a number of community colleges across the United States. The learner is placed in the middle of all institutional actions so as to systematically examine a range of factors that impact equilibrium or alignment. The purpose is to allow colleges to identify, develop and/or refine, implement, and evaluate current and proposed programs. It provides a framework for looking at the curriculum broadly as well as a mechanism for examining individual programs in depth. Each of these components will have been addressed on a macro level for Skyline College in the course of this Education Plan. They are highlighted below:

- *Learner Objectives* are a starting place for learner/college alignment. What are the learner's reasons for enrolling in the College, a class, or a particular program? Are those objectives short-term or long-term? Are they fixed or are they changeable? Can the College use knowledge of learner objectives to add clarity to its efforts to demonstrate accountability?
- Understanding *Current and Potential Student Demographics* helps the College to serve current students and to anticipate the needs of future students.
- The match between *Curriculum Availability* and learners is critical to many decisions--especially those made by working adult students--about whether they will enroll for a given class or program. Availability applies to scheduling and format decisions made by Skyline College for learning experiences and classes.

- Learners will want to know and predict *Curriculum Coherence* to understand how their learning experiences will lead to other learning experiences and competencies.
- The College's ability to express its curriculum as *Articulated Competencies* is key to evaluation efforts as well as to recruiting students and potential business and industry partners.
- *Institutional Permeability* refers to the ease with which learners can navigate the institutional bureaucracy to gain admission, apply for financial aid, access academic advising, register for classes, and interact with officials. Institutional permeability also refers to the perceptions of the ease of interacting with the College carried by the community, potential business/industry partners, and prospective learners
- There is no single, correct *Learning Theory* that colleges can use to align their programs. Rather, questions need to be raised about which learning theories among the several dozen that have been applied to college-level learning are most appropriate for the learners now served by Skyline College and the objectives that they bring with them?
- What happens in the classroom is critical and so, too, are *Support Services*. Skyline already has a strong suite of support services. Best practice brings those services to the table early when designing, developing, and deploying new programs.
- *Competition for Learners* has never been stronger in higher education as learners have more options now than perhaps ever before. Skyline competes for traditional-aged learners chiefly from other public community colleges and for non-traditional aged students from private providers who are nimble and understand that for many learners, time is money.
- *Labor Markets* dictate the foundation for an effective array of programs, but may not always provide a failsafe means of starting or eliminating programs without substantial contact with the business and industry niche for which the program is intended. Skyline College also can use its knowledge of labor markets to create program niches for its learners.
- Understanding the influence of family, job, and civic engagements that represent *Learner Competing Demands*, especially for community college students, can help design programs that build upon these realities so that they compliment, rather than detract from the learning experience.
- In a related same vein, understanding the range of *Learner Lifestyles* and their influence on learning styles and preferences can pay dividends. One such example is the use of cell phones by learners from all income groups. This technology is often used hourly within self-defined communities or networks. How can those networks be used to promote interaction with the curriculum and success within programs?

Statewide, Local, and National Labor Markets

Skyline College is rooted in northern San Mateo County. However, it also serves wider labor force needs in the Bay Area, statewide, nationally, and globally. As more jobs move from America's shores, it is critical that Skyline College prepare its graduates to compete in a global, knowledge-based economy.

Statewide Trends

Statewide labor market forecasts to 2012 are very favorable for community college programs. Most occupational growth will occur in health-related occupations including physical therapy aides and assistants, dental hygienists and assistants, occupational assistants and aides, fitness trainers and aerobics instructors, home-health aides, respiratory technicians, and other healthcare technologies. In fact, the demand in these areas is greater than the demand for healthcare professionals under whom these occupations will work. Appendix E displays the 100 fastest growing jobs forecast for California through the year 2012. Four programs that Skyline College currently offers, respiratory therapy, emergency medical technology, surgical technology, and biotechnology, are also predicted to grow significantly. Other growth occupations found in Appendix E also appear as a good fit with current programs and expertise as potential new programs at Skyline College including environmental technology, forensic science technology, medical records and health information technicians, and personal/fitness trainers. Strong statewide demand also exists for construction technologies and for occupations that learners can start at community colleges including network and system analysts, database administrators, and a wide range of secondary and postsecondary teachers,.

Bay Area Employment Trends

Because of the large labor market in the Bay Area, there is consistency in the types of occupations that will be in most demand with statewide projections. With the exception of food preparation workers and other labor-intensive jobs, most occupations will require high skills, especially in critical thinking, computational, and science-related areas (Table 12). The Bay Area's leadership, for example, in biotechnology will continue to require high-skill workers. Skyline College's leadership in preparing workers for this industry is an institutional strength and bodes well for other high-skill training opportunities.

Table 12		
Occupational Employment Projections, 2002-2012		
San Francisco Metropolitan Statistical Area		
(Marin, San Francisco, and San Mateo Counties)		
Occupational Title	Annual Job Openings	Median Hourly Wage
Total, All Occupations	27,463	\$19.81
Management Occupations	1,750	\$48.31
Computer and Mathematical Occupations	1,293	\$39.98
Architecture and Engineering Occupations	594	\$34.77
Life, Physical, and Social Science Occupations	649	\$33.80
Community and Social Services Occupations	369	\$18.67
Legal Occupations	247	\$47.97
Education, Training, and Library Occupations	1,076	\$23.16
Arts, Design, Entertainment, Sports, and Media Occupations	543	\$26.10
Healthcare Practitioners and Technical Occupations	1,096	\$34.08
Protective Service Occupations	885	\$19.31
Food Preparation and Serving Related Occupations	4,381	\$9.23
Building and Grounds Cleaning and Maintenance Occupations	890	\$12.61
Personal Care and Service Occupations	631	\$12.44
Sales and Related Occupations	3,885	\$14.89
Office and Administrative Support Occupations	4,220	\$17.60
Farming, Fishing, and Forestry Occupations	39	\$9.25
Construction and Extraction Occupations	1,035	\$26.70
Installation, Maintenance, and Repair Occupations	746	\$23.29
Production Occupations	913	\$14.01
Transportation and Material Moving Occupations	1,129	\$13.72
Note: Data for San Mateo County is not available.		
Source: California Employment Development Department, Retrieved March 22, 2006, at http://www.labormarketinfo.edd.ca.gov		

National Employment Market Trends

The national job outlook forecast also confirms the critical nature of community college training to the United States economy. Again, the majority of the fastest growing occupations can be found in the health field, an inevitable consequence of an aging society. Of the programs found in Table 13, Skyline College offers paralegal.

Title	Change		Quartile Rank of Earnings	Most significant source of postsecondary education or training
	Number	%		
Home health aides	350	56.0	VL	STOJT
Personal and home care aides	287	41.0	VL	STOJT
Physical therapist aides	15	34.4	L	STOJT
Medical assistants	202	52.1	L	MTOJT
Dental assistants	114	42.7	L	MTOJT
Hazardous materials removal workers	12	31.2	H	MTOJT
Preschool teachers, except special education	143	33.1	L	PVA
Physical therapist assistants	26	44.2	H	AD
Dental hygienists	68	43.3	VH	AD
Forensic science technicians	4	36.4	VH	AD
Veterinary technologists and technicians	21	35.3	L	AD
Diagnostic medical sonographers	15	34.8	VH	AD
Occupational therapist assistants	7	34.1	H	AD
Cardiovascular technologists and technicians	15	32.6	H	AD
Paralegals and legal assistants	67	29.7	H	Associate degree

Note: Numbers in Thousands. STOJT = Short-term on-the-job-training; MTOJT= Moderate-term on-the-job-training; PVA = Postsecondary vocational award, AD = Associate's degree. Source: Bureau of Labor Standards <http://www.bls.gov/emp/emptab21.htm>

Hot Community College Programs

Another touchstone for Skyline College are those programs identified by the American Association of Community Colleges as strong growth programs within community colleges (Table 14). These occupational fields are somewhat more broad than those depicted in earlier tables and include several programs now in place at Skyline College including automotive technology and general programs in business, computer science, and networking.

Program	% of Programs in All Community Colleges	Average Starting Salary
1. Registered Nursing	19.6%	\$38,419
2. Law Enforcement	5.7%	\$31,865
3. Licensed Practical Nursing	5.1%	\$27,507
4. Radiology	4.6%	\$35,612
5. Computer Technologies	3.7%	\$35,469
6. Automotive	3.5%	\$32,498
7. Nursing Assistant	3.1%	\$16,754
8. Dental Hygiene	2.9%	\$35,956
9. Health Information Technology	2.6%	\$26,578
10. Construction	2.5%	\$34,414
11. Education	2.4%	\$30,810
12. Business	2.2%	\$31,366
13. Networking	2.1%	\$35,938
14. Electronics	1.7%	\$32,734
15. Medical Assistant	1.7%	\$22,953
Source: McPhee, S. <u>Hot Programs at Community Colleges</u> . American Association of Community Colleges. Retrieved March 21, 2006, at http://www.aacc.nche.edu		

Program Competitor Analysis

There are 59 public and private institutions that compete with Skyline College for students within a 30-mile radius of its main campus including 20 for-profit providers, 11 not-for-profit providers, and 28 public two-year or less institutions. The local educational environment is dominated by public community colleges (Figure 16). Competition arises not just from these institutions, but also from 4-year institutions in both the for-profit and nonprofit sectors and from distance education competitors. The recent federal “deregulation” of distance education will permit institutions—chiefly for-profit institutions-- that heretofore have not been active in online education to accelerate their efforts.

Appendix F contains the results of Voorhees Group LLC’s study of programs in the institutions captured in Figure 17 within both a 30- and 60-mile radius of the Skyline College campus. This study was performed by visiting on-line catalogs of each of these institutions to determine which programs they offered to the public and by comparing this information to the programs found in the current Skyline College catalog to form a competitor analysis. An obvious place to grow future enrollment is programs for which there is no or little competition. These are

of two types in the tables which follow, existing Skyline College programs and potential Skyline College programs.

Skyline College's Program Niches

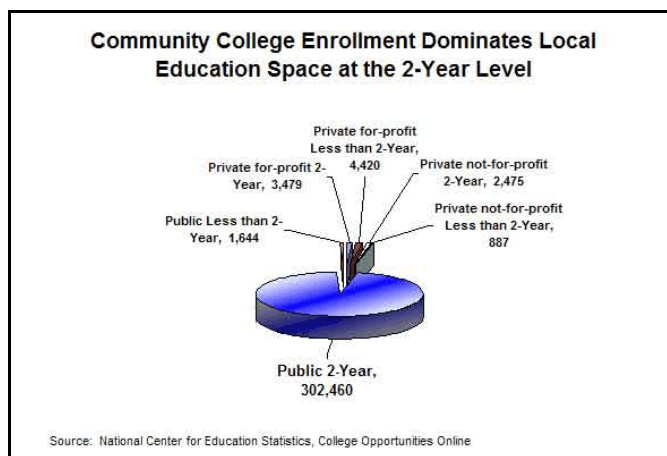


Figure 17

Tables 15, 16, and 17 depict those existing Skyline programs for which there is little or no competition (0 to 2 competitors), medium competition (3 to 10 competitors), and substantial competition (more than 10 competitors). Strategically, therefore, Skyline possesses a competitive advantage in the programs found in Table 15 and less of a competitive advantage for programs found in Table 16, and relatively little competitive advantage for those programs found in Table 17. Collectively these tables can be used to conceptualize Skyline College's current market niche.

Table 15 Existing Skyline College Programs with 0 to 2 Competitors in a 30-mile Radius	
Program	# of Competitors
Automotive Service--Toyota	0
Biomedical Engineering Technology	2
Business Information Systems	2
Emergency Medical Services	2
Family and Consumer Sciences	2
Fashion Merchandising	1
Import / Export Specialist	0
Legal Office Management/Secretarial	1
Retail Management	2

Table 16	
Existing Skyline College Programs with 3 to 10 Competitors in a 30-mile Radius	
Program	# of Competitors
Automotive Diagnostics	6
Automotive Service Technology	8
Biotechnology	5
Business Supervision and Management	3
Computer Network Administration	9
Computer Repair	3
Cosmetology	7
Dance	4
Early Childhood Education	10
English	10
English as a Second Language	10
History	8
Interior Design	4
International Business	3
Legal Assistant/Paralegal	7
Liberal Arts	7
Marketing	7
Mass Communication / Journalism	10
Medical Transcription	7
Music	10
PC Support and Repair	5
Pharmacy Technician	3
Physical Education, General	9
Psychology/behavioral science	10
Respiratory Therapy	3
Speech Communication	10
Surgical Technology	3
Telecommunications Engineering Technology	3

Table 17	
Existing Skyline College Programs with more than 10 Competitors in a 30-mile Radius	
Program	# of Competitors
Art - General	13
Biology	12
Business Administration/Management	17
Chemistry	11
Computer Networking	11
Criminal Justice	12
Foreign Languages	13
Mathematics	11
Multimedia Design and Web Technology	14
Office Management	15
Physics	11
Real Estate	11

Potential New Programs

The same reasoning used to portray niche programs can also be used to segment potential programs that Skyline College might pursue. The pool of programs from which the following tables were drawn include programs drawn from Voorhees Group LLC's work with community colleges in other states as well as programs that have been suggested in emerging occupational areas in the community college literature. Table 18 depicts those potential programs for which there is no competition in a 30-mile radius of the Skyline Campus. These programs represent opportunities for the College with a strong competitive advantage. Table 19 depicts potential programs for which there is some competition, while Table 21 displays potential programs for which there is modest competition and Table 21 depicts substantial competition. Accordingly, the College would be well-advised to concentrate program development on those programs in Table 18 first and secondly on those programs found in Table 19. Of course, programs that are found in Table 20 are possibilities for development as are those found in Table 20. However, these programs should be pursued only after substantial research has determined that a competitive advantage or market niche for the College can be created.

Table 18 Potential Postsecondary Programs for Skyline College to Consider No Competitors in a 30-mile Radius	
Program	# of Competitors
Appliance Repair	0
Applied Management	0
Assisted Living Administrator	0
Atmospheric Science and Meteorology	0
Automotive Service with Other Manufacturers	0
Bail Bonding	0
Banking and Finance	0
Botany	0
Business Administration: Non-profit Management	0
Cancer/Tumor Registrar	0
Cardiovascular Technology	0
Certified Flight Instructor	0
Chemical Engineering	0
Civil Engineering Technology	0
Commercial Vehicle Driving	0
Crime Scene Technology	0
Dental Hygiene Sonography Specialist	0
Dietetics	0
e-Commerce	0
Finance	0
Fire Sprinkler System Technology, Apprentice	0
Funeral Services	0
Heavy Equipment Operations, Apprentice	0
Hemodialysis Technician	0
Histologic Technology	0

Table 18	
Potential Postsecondary Programs for Skyline College to Consider No Competitors in a 30-mile Radius	
Program	# of Competitors
Human Resources	0
Intravenous Therapy	0
Laser and Optical Technology	0
LPN Supervisor Course	0
Marine Technology	0
Meteorology	0
Midwifery	0
Mortgage Finance	0
Native American Studies	0
Nuclear Engineering Technology	0
Nuclear Medical Technology	0
Occupational Safety and Health Technology	0
Occupational Therapy	0
Passenger Service Agent	0
Patient Care Assistant	0
Photographic Technology	0
Physician Assistant	0
Practical Nursing	0
Printing	0
Private Investigation Services	0
Professional Aviation	0
Professional Pilot Technology	0
Public Safety Telecommunications	0
Stockbroker	0
Teacher Assisting	0
Teller Operations	0
Video Game Design	0
Vision Care Technology	0
Vitaculture/Enology	0
Warehousing & forklift	0

Program	# of Competitors
Agriculture	2
American Studies	1
Archaeology/Archaeology technology	1
Art - Printmaking	1
Art - Sculpture	2
Art Direction	1
Aviation	1
Aviation/Airway Management and Operations Administration	1
Avionics Systems Maintenance	1
Building Construction Technology	1
Building Inspection	1
Business Technology	1
Business/Corporate Event Planner	1
Cable Systems	1
Carpentry	2
Commercial Art	2
Community Health Worker	2
Computer Animation and Design	2
Computer Forensics	1
Computer Industry Certification	1
Computer Security	1
Corrections	2
Court Reporting	1
Customer Assistance Technology	1
Data Communication Systems Technology	1
Dental Technology	2
Digital Video	1
Dressmaking Design	1
Entrepreneurship	1
Family Development	1
Film Production Technology	1
Film Studies	2
Florist	2
Footwear Design	1
Forestry	1
Gay, Lesbian, & Bisexual Studies	1
GED	1
Geomatics/Global Information Science	2
Hazardous Materials Management and Waste Technology	1
Homeland Security	2
Hospitality Administration	1
Industrial Management Technology	2
i-Net+ Certification	2
Labor Studies	2
Linguistics	1
Logistics and Materials Management	1

Program	# of Competitors
MCP Certification	2
MCSD (Microsoft Certified Solution Designers) Preparation Course	1
Medical Laboratory Technician	1
Microprocessor Systems	1
Microsoft Solutions Developer	1
Music Business	1
N+ Certification	1
NCLEX: State Board of Nursing Review	2
Nursing Assisting/Home Health Aide	2
Object-Oriented Design	1
Oracle Database Administrator	2
Oracle Database Developer	2
Park and Leisure Studies Management	1
Phlebotomy	2
Physical Education, Aquatics	1
Physical Therapist Assistant	2
Project Management	1
Promotor Education & Employment	1
Radiation Therapy Technology	1
Recording Arts Technology/Technician	1
Religious Studies	1
Restaurant Management	2
Security guard	2
Sign Language Interpretation	1
Small Business Management	2
Sonography	2
Spanish	1
Speech Pathology and Audiology	1
Sports Medicine	2
Statistics	1
Substance Abuse and Addiction Studies	2
Textile Design	1
Theater and Entertainment Technology	2
Translation/Interpretation: English/Spanish	1
Transportation/Transportation Management	2
Veterinary Technology	2
Visual Basic Programming	1
Visual Communication	2
Wood Science and Wood Products	1

Program	# of Competitors
Anthropology	8
Architectural Design and Construction Technology	4
Architecture	7
Art - Ceramics	3
Art - Drawing/illustration	3
Art - Painting	4
Art - Photography	8
Art History	5
Asian Studies	4
Astronomy	7
Automotive Collision Repair and Refinishing	6
Broadcasting	7
Business Computer Programming	3
Business Computer Specialist	6
C+ Programming	3
Chicano/Latin American Studies	6
Cisco Network Associate	5
Cisco Networking Academy	4
Computer Aided Design	5
Computer Electronics Technology	7
Computer Office Specialist	8
Computer Programming	9
Computer Assisted Design	3
Costume Design	3
Creative Writing	4
Culinary Arts	5
Dental Hygiene	3
Desktop Publishing and Digital Imaging	6
Economics	8
Education Programs, pre Transfer	5
Electrical Technology	4
Electronics Technology/Technician	5
Engineering Technology	9
Environmental Science Technology	3
Ethnic Studies	7
Fashion Design	4
Film Making	6
Fire Science Technology	5
Fitness Management	7
Geography	9
Geology	8
Health Information Management	4
Health Services Administration/Office	9

Program	# of Competitors
Horticulture	5
Hotel and Resort Management	3
Human Services	8
Humanities	9
Information Technology Support	8
International/Global Studies	4
Java Programming	5
Landscape Technology	3
Law Enforcement Officer/Police Academy	6
Library and Information Technology	3
Machining	5
Manufacturing	3
Massage Therapy	6
MCSA (Microsoft Certified Systems Administrator)	3
Mechanical Engineering Technology	3
Medical Coding/Billing Specialist	9
Medical Secretary	6
Medical Technology	7
Microsoft Database Administrator	3
Microsoft Office User Specialist	3
Nutrition and Dietetic services	3
Philosophy	8
Physical Education, Coaching	3
Political Science	9
Radiologic Technology	3
Social Studies	6
Sociology	8
Theatre Arts	7
Tourism and Travel Services Marketing Ops	3
UNIX/Linux System Administration	7
Welding Technologies	5
Women's Studies	5

Program	# of Competitors
Computer Science, General	11
Dental Assistant	11
Graphic Arts Technology	15
Medical Assisting	14
Nursing	13
Real Estate	11

Existing Programs to Strengthen

Analyses of emerging demographics, labor market projections, competition, and enrollment trends leads to conclusions about which programs the College already operates that ought to be strengthened (Table 22). This strengthening can be accomplished in joint efforts by program faculty and instructional administrators to pursue curricular enhancements based on competencies, alterations to class scheduling, delivery formats, creation of classes that more closely meet labor market demands, and in hiring qualified part-time faculty to add additional classes in new locations. Increased enrollment in classes will grow programs by providing additional resources to the College.

Table 22 Skyline College Existing Programs to Strengthen		
Program Area	Rationale	Desired Outcome
Allied Health	Strong labor market demand for generalist health workers.	Build on strength of existing health science courses and certificated programs to increase enrollment opportunities.
Automotive Technology	Strong labor market demand.	Potentially expand program to feature additional manufacturers. Additional space will provide basis for program growth.
Business	Program has lost enrollment over the past four years. Could be a match to labor market demand in the Bay Area.	Upward swing in enrollment.
Biomedical Engineering Technology	The Bay Area shows no signs of slowing down in Biomedical Technology. Signature program for Skyline	More graduates and enrollment, more partnerships with biotechnology manufacturers.
Computer Applications and Office Technology	Office jobs are predicted to be in demand in Bay Area. Program enrollments have trended downward since 2001-2002.	Refresh curriculum and delivery options.
Computer Science	Enrollment has been declining. Few 2 nd semester courses offered to build on core areas.	Refresh curriculum, potentially integrate with other disciplines.

Table 22
Skyline College Existing Programs to Strengthen

Program Area	Rationale	Desired Outcome
Developmental Skills/Learning Skills	Enrollment appears low, given the experiences of other community colleges in the United States. Further, the transition that California is now making to “high stakes” secondary testing will require more activity if Skyline pursues those who fail this test.	Development of basic skills competencies bridging high school graduation requirements
Distance Education Options	Not a separate program, but a format that has seen accelerated growth across the United States, especially in community colleges. In addition to online offerings, engagement in distance education produces other learning options across the entire curriculum.	Development of a schedule of programs that will increase online offerings, especially in the general education areas and targeted occupational areas.
Early Childhood Education	Labor market demand especially in light of the potential success of the Preschool for All initiative.	Expanded enrollments and graduates.
English as a Second Language	Enrollments have trended downward, yet immigration to the Bay Area is constant. Need for ESL classes in the College’s service area is localized to neighborhoods.	Increased enrollment especially at community centers.
Fashion Merchandising	San Mateo County is noted for upscale retail and affluent consumer purchases, especially for apparel.	More graduates, tighter connections with retailers and design industry.
Foreign Languages	Multilingual characteristics of Bay Area and the synergies that can result from tying languages together with the initiatives of the International Trade Center.	Robust programming on the credit and noncredit side.
Health Science	Classes feed other health areas. Emerging employment field nationally, regionally, and locally. Does not include Respiratory Therapy nor Surgical Technology.	More enrollment in certificated areas identified in Education Plan.
Health and Wellness	Increasing interest by all segments of the population.	More enrollment in existing classes and increased participation by community members in existing and future facilities.
Import / Export Specialist	Market niche program with No identifiable competition	Further integration within business curriculum
Physical Education	Demand for indoor soccer and a fitness center in addition to expanded spinning classes.	Increased enrollment and a more comprehensive program for students.

Program Area	Rationale	Desired Outcome
Respiratory Therapy	Strong statewide job demand.	More enrollment. New lab space will provide additional program capacity.
Retail Management	The outlook for retail sales is strong, especially in the Peninsula. Strong job market.	More graduates, internships with retailers.
Surgical Technology	Program represents market niche for Skyline College. Strong statewide employment outlook.	More enrollments. Better facilities and labs. Potential online collaboration with other community colleges.

Recommended New Programs

Developing new programs is neither easy nor inexpensive. The foregoing data and information in this Education Plan point to potential programs that Skyline College will want to consider in the short-term. It is beyond the scope of this plan, however, to recommend when and if these programs should be made available. Rather, there are strong indications that the programs below will have few current competitors, strong connections to local and regional labor markets, and, in most instances, strong ties to existing Skyline programs.

It is recommended that high costs programs be developed only in conjunction with business, industry, or public sector partners. Several of the recommended programs can be built from existing programs and by combining faculty expertise. There are also programs that would be new endeavors for the College and ought to be pursued most logically when there are, or slightly ahead of, strong partnerships, especially in the medical field. All of these suggestions require further development and should be used only as a starting point in a rational process of program development. The College should also prepare for the introduction of other programs not on this list but which emerge as new opportunities that were unidentified by this Education Plan. As the work of academic planning unfolds at Skyline College, it is important that new program development be focused on several programs each year while attention is given to strengthening the existing programs identified earlier.

Program	Rationale	Cost
Assisted Living Administrator	An aging Baby Boom population eventually will require more assisted living.	Moderate

Table 23
Skyline College Recommended New Programs

Program	Rationale	Cost
Cardiovascular Technology	Emerging community college program with no competitors in a 30-mile radius. More than 4,000 will be employed in California by 2012.	High initial equipment cost and cost for maintaining clinical rotations.
Construction Trades/Apprenticeship	Strong demand for new home and commercial construction as well as remodeling and seismic retrofitting.	Space and equipment costs could be offset by one or more industry partners.
Digital Video Technology	Proximity to high tech animation studios.	High initial equipment cost. Some equipment in place. Would need industry support.
Environmental Science Technology	Forty percent growth rate in California predicted to 2012. Nearest program is in Cupertino. Emerging interest in green technologies, especially as they have become more affordable.	Moderate start-up costs.
Geomatics/GIS	Number of professionals using GIS a part of their job approaches 1,000,000 worldwide. Numbers are growing 15 percent annually	High initial outlay for equipment. Cost of technology is coming down.
Home Health Aide	Only two competitors in 30-mile radius. Emerging growth area as Baby Boomers pursue home care options.	No foreseen high initial costs.
Homeland Security	Continues as a growth area after 9/11. Two competitors in 30-mile radius.	Medium (tied to existing administration of justice program)
Logistics	In an global environment, the Bay Area will continue to lead in shipping and transportation of goods, including the cost of managing inventory. Only one competitor in a 60-mile range, Contra Costa College	Medium. Would require engagement of industry partners and researching the potential articulation with 4-year college and university partners.
Occupational Therapy Assistant	No competition in 30-mile radius. 53.8 percent growth rate from 2002 to 2012.	Equipment costs could be shared with PT assisting and/or sports medicine.
Personal Training/Fitness Instructor	High anticipated growth rate in California.	No new equipment costs beyond technology needed for state-of-the art fitness testing.
Physical Therapy Assistant	Statewide and national forecasts for this occupation indicates that demand will outstrip supply.	High initial equipment cost.
Spa Technology	Supplement existing cosmetology Euphoria Spa training with wellness and fitness curriculum including Yoga and Pilates certification.	Program collaboration for existing courses points to low cost.

Program	Rationale	Cost
Sports Medicine Technology	Two competitors in 30-mile radius. Nearest program is in Pleasant Hill. Fits with courses in athletic training and athletics area.	Equipment purchase for start-up. Moderate cost thereafter.
Teacher Assisting	No known competitors in 30-mile radius. Job outlook not documented, but such positions are suggested by the federal "No Child Left Behind Act." Potential synergies with Early Childhood Education.	Low cost.
Translation Specialist	California has more import/export activity than many nations. Establishment of certification for Asian Rim languages could add to the region's capabilities.	Low cost because of potential to incorporate expertise from existing programs.
Veterinary Technology	Labor market demand. Two competitor programs in a 30-mile radius.	High initial equipment costs. Might be shared with veterinarians in service area.

Other Initiatives

This section of the Education Plan discusses broad initiatives that Skyline College might pursue. These initiatives should operate at a macro level since they do not fall exclusively in the domain of one, or even a handful of, instructional or student service programs. Further, several of these initiatives have previously been mentioned; their use to the College is further explored below. Each will require a strong partnership between student services and instruction. Their successful pursuit will shape the total College over the planning period and will, in turn, effect the future development all instructional and student support programs. While these initiatives are presented separately, they are interrelated.

Developmental Skills

An increasing number of students now enter college without all the tools necessary for success. Nationally, those figures approach 80 percent of new students and success rates, as measured by attainment of the Associate's degree, in the low single digits. The success of these learners, many of whom are students of color, first-generation, and/or low-income students, will determine the long-term viability of Skyline College's transfer and vocational programs. Bluntly, these programs cannot succeed unless students are moved through required developmental skill classes in an expeditious, yet quality manner.

There is little organized competition outside the public sector for programs that prepare learners for success in the College classroom, meaning that most of the burden falls upon public community colleges. No programs that were compensatory in nature were located in for-profit providers in the course of the competitor analysis performed for this study. This should come as no surprise, given the costly nature of these programs and the tendency for proprietary schools to “embed” remedial education within instructional programs.

Skyline College is currently engaged in specifying learning outcomes for its courses, a solid place from which to examine the competencies needed for success as well as the competencies needed to begin a college career. A critical look would also incorporate those competencies purported to be measured by CAHSEE and the link from these competencies and those measured by placement testing at Skyline College. Identification and articulation of competencies that these assessments share and those that are unique would be starting place to ensure that students and prospective students see the sequence of skills needed for success. At the top of that sequence, it would be well to identify competencies that are necessary for the “regular” curriculum so that students understand, unequivocally, where their skills match those required for success. The culture at Skyline College that is nurtured by identification of student learning outcomes bodes well for this effort.

The College has chosen to embed developmental education within respective instructional disciplines. This spreads the importance of developmental education throughout the College and allows competencies to become integrated throughout instructional programs. It also minimizes the chances that developmental education is the responsibility of a single unit, or silo, within the College. On the other hand, declining enrollment suggests a mismatch with what is known about secondary school preparation, at least nationally, and enrollment trends in developmental education at the College. This may be a function of lack of awareness of the program and its benefits or increased activity by other providers. These trends bear watching, especially as the College expands its efforts with K through 12 districts in line with the recommendations offered by this report.

Distance Education

More than 97 percent of the courses offered at Skyline are delivered face to face in the classroom although there are also a small number of hybrid, or mixed mode, classes offered in addition to online only classes. Throughout the Master Planning process considerable interest was expressed by faculty, staff, and students in expanding the number of non-traditional delivery course offerings to meet the needs of current and potential learners. This mix would include online and hybrid (blended) courses. Hybrid courses mix technological delivery with traditional face-to-face instruction. Although not limited to the hard sciences, they have been found to be particularly effective in classes requiring the development sequential skills and competencies. Their use in general education classes is also widespread in community colleges. Expansion of these learning opportunities will directly influence the future of enrollments at the College, providing it with much more flexibility than it currently has in scheduling classes and other learning options. This flexibility should influence plans for facility renovation and expansion.

Distance education is not a total solution to the early morning and evening capacity issues faced by the College. Increased movement toward distance education will determine the complexion of the institution's learning menu which, in turn, will impact the types of learning environments that are required to meet educational needs. Distance education also has transformative value as a platform from which the College can evaluate the effectiveness of its all curricula and to engage its faculty in new teaching paradigms. At the same time, competition for on-line community college students is sharp.

Distance education knows no boundaries and there are many competitors, especially at the lower division (100 and 200 courses) level. For example, Rio Salado College in the Maricopa Community College District enrolled more than 38,000 headcount credit students in 2002-2003 and more than 16,000 noncredit students. Rio Salado is now the sixth fastest-growing public two-year college in the nation and enrolls students in nearly all 50 states and on six continents. A community college consortium in Colorado, CCCOnline, annually enrolls more than 20,000 students. Skyline cannot match these numbers and should not try to replicate the range of offerings now offered. However, the College clearly needs to expand its menu of online and hybrid classes.

Distance education expansion also will mean better opportunities for Skyline College students to access on-line content to supplement their classes and, in some cases, to replace those classes. Traditional textbooks are becoming more expensive every year and even though they are updated frequently, may not always contain the most recent developments in their field. Multimedia presentations, blogs, chatrooms, access to learning objects, the use of search engines to quickly locate content, and other technology tools offer many advantages, including dollar savings, increased instructional efficiency, greater accessibility, and enhancing learning opportunities in a format that engages today's digital natives. An excellent resource for the College to consider is the *Best Practices for Electronically Offered Degree and Certificate Programs* ratified by eight regional accrediting commissions.

Evidence throughout this report suggests that today's Skyline Students are not the same learners that populated the College in the early 1970's. Regardless of their academic preparation for college-level work, young students have spent their entire lives surrounded by technology. It is estimated that the average college grad has spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games (not to mention 20,000 hours watching TV).⁶ Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives. As waves of technology continue to penetrate society, students of all ages increasingly will expect that Skyline College provide access to technology and that their courses be similarly technology-friendly. Skyline College has no choice but to engage both existing learners and new markets with distance education that matches learner preferences for time, format, and delivery.

⁶Marc Prensky. "Digital Natives, Digital Immigrants" On the Horizon (NCB University Press, Vol. 9 No. 5, October 2001).

Noncredit and Not-for-Credit Classes

In California, the terms “noncredit” and “not-for-credit” convey separate meanings. According to the California Community College Chancellor’s Office, noncredit education provides adults the opportunity to earn a high school diploma or a general equivalency diploma (GED), increase literacy skills, learn English, learn to read and write, gain American citizenship, become an effective parent, and learn specific job skills. Noncredit classes are eligible for state apportionment, or reimbursement. Not-for-credit classes, on the other hand, are non-reimbursable activities that are associated with providing training to businesses and industries but can also include classes in the areas of community education and personal enrichment. Not-for-credit classes need to be totally self-supporting.

Skyline College does not offer noncredit classes in adult education and all not-for-credit classes are coordinated throughout the District by its Office of Community Education located on the College of San Mateo campus. Both noncredit and not-for-credit classes may be service opportunities that the College could pursue in low-literacy areas (noncredit) and in contract training (not-for-credit), especially for businesses and industries whose employees may be more interested in skill acquisition than in earning college credit. Similarly, the College might consider a range of not-for-credit classes and programs directed at older citizens in its service area, an emerging demographic. Not-for-credit classes that may be especially attractive for Skyline College may be an expanded menu of entrepreneurship-related classes including starting businesses, franchising, and writing a business plan. Noncredit, or adult education, classes could be offered in cooperation with Community Based Organizations many of whom are already engaged in assisting adult learners but who may lack a standardized curriculum and the resultant inability to translate their courses seamlessly with the College.

Pre K through 16 Linkages

Closing the participation gap in higher education especially for low-income students and students of color is a Skyline College problem, a California problem, and a national problem. The dimensions of this fundamental issue cannot be described by standardized test scores alone. Aggregate test scores appear to be heavily influenced by demographics and by the percent of students defined as “poor” by the federal government. Instead, the problem best is described by the wasted human potential that arises when individuals do not complete each level of education along the route to higher education. Because students are particularly vulnerable to dropping out at transition points, especially during the first year of college, the needs of high school students must be addressed with seamless curricula and support services that help students transition into college and career. National efforts such as the First-Year Experience program, work with which the College is very familiar, can bring further expertise to bear in assisting students making a transition to the College. On an allied front, national research also indicates that partnerships with higher education institutions that result in greater future participation need to start much earlier than the 11th or 12th grade. In fact, it appears that the most fruitful path to engaging prospective students and their parents begins in middle school.

Any activities that bring about or strengthen collaborative relationships between and among families, middle schools, high schools, postsecondary institutions and business/industry should be pursued with vigor. In recent years it appears that dual enrollment programs with area high schools have declined. There also exists one early/middle college model in the County. Both are vehicles for low-income and minority secondary students to see higher education as within their reach. In particular, the early/middle college model creates a five-year, seamless, accelerated program for secondary students to complete college Associate degree concurrently with a high school diploma.

This early/middle college model makes college affordable to disadvantaged students by combining funding sources, reducing repetition in the curriculum, and eliminating the need for remediation at the College level. The process of awarding two degrees in five year's time means that the early/middle college model is much more than simply offering one or two courses at secondary schools under the "dual enrollment model." It means, instead, refashioning the education process to provide a total multifaceted, multi-leveled education experiences for secondary students. The College may wish to investigate ways to expand on the one extant early/middle college model in San Mateo County.

Skyline College should be able to respond to the implementation of "high stakes" testing in secondary schools. This spring marks the first graduating class that must pass the California High School Exit Exam (CAHSEE) to receive a diploma. One of the primary concerns of this test is the potential detrimental effect it may have on English as a Second Language learners. Those that fail may constitute an increasing population for Skyline College, particularly if the College were to offer test preparation and/or courses that lead to a GED. Similarly, students must also successfully complete specific courses, earn a certain number of academic credits, and meet other district or school-specific requirements to receive a diploma. Students who do not meet these standards can alternatively attend adult school to earn a diploma or pursue a General Education Diploma (GED). Students aged 16 to 18 may, with their parent's permission, choose to take the California High School Proficiency Exam and, if successful, may leave high school with the legal equivalent of a high school diploma. Skyline College will want to explore the feasibility of serving as an alternative secondary diploma provider for students who fail the CAHSEE. Short of that designation, the College should be prepared for students who will require even more intense remedial help to access higher education.

Strategic Enrollment Management

To prepare to meet the challenges of rapidly changing demographics in its service area, Skyline College will want to elevate its current efforts in enrollment management to the strategic level. This strategy will involve establishing enrollment goals and establishing procedures to reach these goals. In as much as institutional marketing is not merely publicity of programs, strategic enrollment management is not simply recruiting students. Rather, the retention of students so that they meet their goals at the College should carry as much emphasis as recruitment. Strategic enrollment management involves close collaboration between instruction and student services in these areas: long-range planning, academic program development, marketing and recruitment, retention, and career planning and placement.

A solid foundation for strategic enrollment management already exists on campus. The College is currently interested in pursuing action-oriented research and implementation of strategies found as a part of the national First-Year Experience project. Additionally, the scenarios developed in the enrollment projection model prepared for this plan provide a framework for setting strategic enrollment goals. The GIS maps provided in this plan also can help guide the specific locations for implementing marketing and recruitment activities. The College is already engaged in significant retention strategies, including, among other efforts, learning communities, the Extended Opportunity Programs and Services (EOPS), and offering early registration to students who have completed an individual education plan. All staff interviewed in the course of this Education Plan process appear to be sensitive to students and their needs. There is also a willingness to implement new procedures to help students and to provide longitudinal research that identifies student retention patterns by student demographics and experiences within the College. Collectively, the building blocks are in place for inserting new strategies within current enrollment management efforts.

Student Support Services

Skyline College's array of student support services is wide and will grow even wider over the next several years as other initiatives are developed. For example, those programs that serve students of color--ASTEP, Kababayan, MESA, and Puente--will increase in volume with the success of enrollment management strategies. The need for further integration of these support programs with instructional divisions--already a College strength--also is likely to increase. Similarly, if more nontraditional students are attracted to the College because of enrollment management efforts, the volume of needed support services will increase, especially in the evening hours and on weekends. Added emphasis on term-to-term and year-to-year retention will also spell increased activity in student support services. Note that responsibility for retention cannot be solely the responsibility of student support services; rather, the focus should continue to be on identifying the roles for increasing retention across the entire campus and pursuing a collaborative agenda that is benchmarked and evaluated continuously.

New initiatives will create new opportunities for student support services especially in distance education and K through 12 outreach. If the decision is made to accelerate the use of online only course sections, for instance, student services will need to think through processes for electronic registration, advising, and learning support in conjunction with instructional divisions. The K through 12 agenda will provide opportunities for student services, for example, to expand outreach to secondary and middle schools, to provide data on student success at Skyline College of former students to secondary schools, and to help secondary schools to understand the factors that accompany Skyline student success.

Workforce Literacy

Given the diversity of the Bay Area including the number of recent immigrants, English literacy will be the necessary first component of Workplace Literacy. Skyline College may wish to consider service to this segment of incumbent and/or transitional workers and their employers. Workers must be able to communicate in English while moving on to master more complex

work-related skills. Workplace Literacy skills include mathematical computation, reading, and critical thinking. Employees can acquire these skills simultaneously with English fundamentals. Providing English as a second language (ESL) classes on the job for those who have problems accessing programs outside of work has been shown to be very productive in other settings. Learning in the context of work can simultaneously improve work skills while improving language skills to elevate overall levels of Workplace Literacy.

FUTURE ENROLLMENTS, RESOURCES, AND FACILITIES

Skyline College faces fundamental choices about its future. Pushing the boundaries of its traditions, the College now faces the reality of an increasingly diverse population base and advancing changes in technology. Therein lies great opportunity. Although the tradition of transfer is strong at Skyline College there are also other challenges on the horizon. Part of that future will be determined by the success of students who will not be able to easily cross the threshold to the College's transfer programs and/or high skills programs without remedial help. At the same time, it is critical that the College's core transfer programs maintain their viability while the College simultaneously pursues new opportunities. This report culminates in a series of recommendations, strategies, and success factors that will serve the College to implement this Education Master Plan. To pursue this ambitious work will require an understanding of future enrollments and the resources required to serve them.

Enrollment Projections

Appendix G contains the full enrollment projection report prepared for this Education Plan. This report projects future fall enrollments using population projections for San Mateo County, San Francisco County, and other counties from which Skyline College draws students and the College's current market share within these jurisdictions by race/ethnicity and age. In addition to the baseline scenario this report depicts, three additional scenarios were developed to model the effect of deliberate institutional enrollment management strategies.

	Scenario A	Scenario B	Scenario C	Scenario D	Cumulative Effect
2005	25,099	25,099	25,099	25,099	25,099
2010	24,717	25,966	27,382	26,878	29,543
2020	25,263	28,080	31,025	29,647	35,409
2030	24,633	27,632	30,216	29,324	34,906

Scenario A assumes that the current shares that Skyline College enrolls by race/ethnicity, age, and county of origin remain fixed at their Fall 2005 levels. That is, Scenario A models the effect of continuing current marketing and enrollment management strategies. As such, it is a "status quo" model that requires no new efforts on the part of the College but results in no enrollment growth through the projection period. This is the result of the general flattening of the

current demographics served by Skyline College predicted for southern San Francisco County. Simulation B increases the shares of Hispanic students population ages 15-24 through 2020 by two percent. As previously noted, the Hispanic subgroup is the largest growing segment in the College's service area. Scenario C assumes that the College participation rate for all students of color will increase through 2020 by two percent. Scenario D provides for an increase in the share of all 25-34 year olds, a subgroup that is prone to attend community colleges to increase employment skills, by one percent. The total sum of these institutional actions is noted in the last column; it is the cumulative effect of all increases depicted by scenarios B through D. Figure 18 is a visual depiction of these enrollment choices.

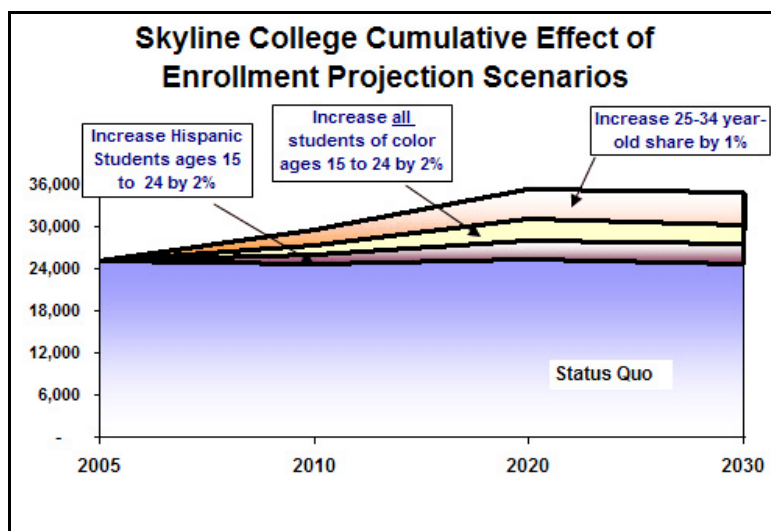


Figure 18

Employee Resources

The large investment in human resources made by Skyline College makes it critical that strategic planning occur to replace and/or redirect positions made vacant by retirement and other departures from the College. More than half of full-time faculty are 53 years of age. Assuming that these faculty will retire over the next 6 or seven years, when the youngest among them reaches 60, the College will need to replace a significant number. Table 25 displays the current status of full-time faculty by age and indicates that 38.7 percent currently are in the “retirement zone” where years of service and age combine to make such decisions within reach of individuals. Were one to include in the retirement zone the 56-60 age group with 6-10 years of

service the impact of pending departures would be even larger than depicted. These departures when combined with any decline in the available pool of part-time faculty from whom the College draws will alter the instructional landscape. Now is the time to begin to prepare for these challenges and their impact on the institution. Strategic thinking about what types of faculty will be required and what types of skills will be needed to deliver quality learning to Skyline College students throughout the planning period are critical. Since professionals throughout higher education are aging, and the pool of qualified applicants, especially in mathematics and the hard sciences is much sought after, the competition to replace faculty will be stiff. Further research will be required to drill down to the discipline data to plan for program replacement.

Table 26 indicates that the College will see more non-instructional faculty departures over the near term than departures among full-time faculty. Executive, administrator, and supervisor ages by years of service (Table 27) indicate less imminent departures, but there are wide differences in these data indicating that future planning will need to incorporate individual circumstances. Other than known departures, it is not possible to predict exactly when individuals will choose to leave since those decisions are highly personal. Certainly, there is no requirement that employees retire at a given age and many will choose to work beyond the “conventional” age of retirement.

Yrs of Service	Age Ranges						
	40 or Less	41-45	46-50	51-55	56-60	61-65	66 +
1-5	10	2	1	4	--	4	--
6-10	5	5	4	8	7	--	--
11-15	--	6	1	1	3	4	1
16-20	--	1	1	3	2	1	--
21-25	--	--	1	4	1	--	--
26-30	--	--	--	--	4	2	--
31+	--	--	--	--	4	1	2

Note: Data as of March 2006. Shaded cells account for 38.7 percent of the total.

Yrs of Service	Age Ranges						
	40 or Less	41-45	46-50	51-55	56-60	61-65	66 +
1-5	--	1	--	--	--	2	--
6-10	2	--	1	--	1	--	--
11-15	1	--	2	1	--	--	--
16-20	--	--	--	2	--	--	--
21-25	--	--	--	1	1	--	--
26-30	--	--	--	1	--	--	--
31 +	--	--	--	--	--	--	1

Note: Data as of March 2006. Shaded cells account for 47.1 percent of the total.

Years of Service	Age Ranges						
	40 or Less	41-45	46-50	51-55	56-60	61-65	66 +
1-5	2	1	3	3	4	--	--
6-10	1	1	1		1	--	--
11-15		1		1	1	1	--
16-20		2		--	1	1	--
21-25				--		--	--
26-30				1	--	--	--
31 +				--	--	--	--

Note: Data as of March 2006. Shaded cells account for 19.2 percent of the total.

Facilities

Recent and projected construction on the campus has been of great benefit to Skyline College. While the noise, sidewalk diversions, and relocation of parking areas have been a short-term nuisance, the long-term impact on the campus is overwhelmingly positive. In addition to this Education Plan, Skyline College simultaneously is engaged in developing its Education Facility Master Plan. That plan will use the findings of this plan, particularly as this plan makes recommendations about the College's programming, to program space needs on campus. These recommendations are found in earlier sections of this document. What follows in this section is further advice about facilities and the use of space on campus that has been collected in the course of interviews and observations.

1. Several new programs have been suggested that will have direct effects on the number of science courses (anatomy, biology, chemistry). These would include personal training, anesthesia technology, home health aide, and dental hygiene. Coupled with general increases in science coursework, point to the need for more laboratory space and/or efficiencies in scheduling the expanded laboratory spaces available after completion of Building 7. Similarly, a special lab might be required if the College decides to pursue other programs such as medical coding or a medical unit assistant program.
2. Noise abatement should be considered for large learning laboratories, especially in the Learning Center as well as other areas requiring group work. Use of sound-deadening material in classrooms also would expand learning options including small group work, an increasingly important teaching style throughout higher education.
3. Millennial students expect not just access to technology but smaller spaces that can be used for discussion and/or private work using that technology. These spaces might be configured in existing general classroom buildings but should be planned for any new structures.
4. Thought should be given to expanding to off-campus locations in an effort to take educational opportunities closer to those who might otherwise not avail themselves of the College's services. The Chestnut Center in proximity to pockets, or Census Tracts, of lower education attainment might see more programming directed specifically at that demographic. Certainly, not all locations will require outlays from Measure A since the College may be able to locate classes in secondary schools, recreation centers, and neighborhood locations for no or minimal cost.
5. In addition to configuring classroom space, it is important to address office space for faculty and administrators, the need for private and group meeting spaces, and requirements for adequate storage of documents that the College is legally bound to maintain.
6. Particular facility needs are very apparent. In the student services area, adequate space is needed for the Assessment Center while accessibility is a key issue for the Differential Learning Skills Program. To make the College's efforts in internationalization more physically visible, consideration should be given to centralizing current and expanded programs in one location. Further, as the College increases its use of data and information for decision-making, thought should be given to locating the research and planning office in a central location.
7. In addition to configuring classroom space, it is important to address administrative offices and their need for private meeting space and for adequate storage of documents that they are legally bound to maintain.
8. A survey of current students would seek to identify the times and days that they might attend classes as well as their preferences for learning options, including distance

education. While survey responses may not precisely match future behavior, the College needs to know whether afternoon classes are a viable option for a critical mass of students and plan schedules accordingly. If successful, shifting a portion of classes to afternoon scheduling might alleviate some of the classroom and parking congestion in morning hours.

RECOMMENDATIONS, SUGGESTED STRATEGIES, AND SUCCESS FACTORS

Education plans frequently generate considerable work in their wake. The recommendations below are intended to support the College in engaging in this work while not creating another layer of planning activity. Skyline College already has the building blocks in place to pursue strategic actions laid out by this plan and, in this regard, it is far ahead of those community colleges that have only superficial planning structures in place. Following each recommendation below are suggested strategies and suggestions for success factors that can provide the College with a mechanism to know whether progress toward these recommendations are being made. The College is the best judge of what specific strategies support these recommendations and may wish to add or refine to the following framework.

1. *Delineate strategy as distinct from, but guiding, operational excellence.* Current planning efforts are comprehensive but perhaps more operational than strategic. It is recommended that the College consider two or three strategic initiatives each planning cycle and pursue just those initiatives. At the same time, operational planning is at the heart of the organization and needs to continue and be monitored, especially as it supports strategic initiatives. Streamlining processes is always an important objective; no plan should take longer to create than it does to implement.
 - a. Suggested Strategies:
 - i. Through existing planning mechanisms, prioritize 2 or 3 activities that truly will make a difference in the College's future and focus energies on their accomplishment.
 - ii. Keep operational planning current but recognize that monitoring of day-to-day operations can impact the energies and resources needed to pursue strategies.
 - iii. Routinely evaluate the indicators and outcomes in the new Scorecard system and use the information as a guidepost for meeting goals and successful implementation of strategies.
 - b. Potential Success Factors :
 - i. Report to the College community each spring detailing those strategic goals picked for action in the next year and a summary of the strategic accomplishments for the preceding year.

2. *Increase learning alternatives for students and other potential learners.* Current and future students are technologically sophisticated. All learners value time and convenience, causing the College to re-examine the format and delivery options for all learning experiences.
 - a. Suggested Strategies:
 - i. Support the development of an expanded menu of distance education courses, especially in general education areas, that are available asynchronously as well as in hybrid modes.

- ii. Engage faculty in professional development aimed at using learning platforms and embedding technology in courses. Identify learning competencies, the unbundling of course content tied to these competencies, and the reuse of this unbundled content (learning objects) in other courses, both credit and non-credit.
 - iii. Investigate the possibility of converting one or more entire program(s) to an online learning format.
 - iv. Consider the possibility of employing an instructional designer to work with faculty to create common course platforms and to ease the transition from face to face instruction to successful online delivery.
 - v. Continue to express existing courses in competencies and share these competencies with current and prospective learners as well as employers. Use the language of competencies to drive college-wide discussions of learner needs. Synergies with Skyline College's progress in student learning outcomes provides a solid foundation for this strategy.
 - vi. Engagement in increasing learner alternatives does not mean re-engineering the curriculum. Participation in one or more learning object repositories may pay large dividends to Skyline's efforts to speed development of new learning opportunities.
- b. Potential Success Factors:
- i. An increase in the proportion of online only classes from 2.6 percent to 5 percent in two years.
 - ii. Specification of one or more programs for conversion to distance education.
 - iii. A ten (10) percent increase in classes offered Saturdays and Monday through Friday in the 12 p.m. to 5 p.m. time block each year to 2015.
 - iv. Creation of block scheduling for cohorts of students, especially to take advantage of excess capacity in the afternoon hours.
3. *Continue efforts to collaborate with K through 12 schools, especially at grade levels lower than juniors and seniors.* Skyline College has reinvigorated its relationships with local secondary schools recently. This will pay dividends as the College moves ahead and as the schools grapple with new "high stakes" testing standards. Research demonstrates that the first notions of attending college are formed in the junior high school and/or middle school years among both students and their parents.
- a. Suggested Strategies:
- i. Investigate actions necessary to expand early/middle colleges within the San Mateo Community College District with the support of the secondary school districts.
 - ii. Consider establishing a teacher assisting degree at the College to assist K through 12 districts to meet class size minimums.
 - iii. Investigate the possibility of offering alternative certification for prospective K through 12 teachers.

- iv. Use the Center for Teaching and Learning as a nexus for professional development of secondary teachers as well as serving the needs of the District's teachers.
 - v. Conduct regular Skyline faculty-and K through 12 faculty and administrator-to-administrator meetings to align curriculum, develop common assessments, and to develop programming to increase the awareness of secondary and middle school students about their career and further education opportunities.
- b. Potential Success Factors:
- i. Presentations are made each year by College faculty and staff to students in all the middle schools in Skyline's service area.
 - ii. Outcomes of regular meetings between Skyline College faculty and teachers from the local high schools to discuss curriculum alignment issues, particularly in math and English disciplines.
 - iii. Increase participation in Skyline's Jump Start program which brings summer programs on campus for children from low-income families that are aimed at building expectations in these children that they can go to college. Develop wider mechanisms to make parents aware of various avenues that can be taken to give their children an education.
4. *Increase institutional marketing.* It is clear that Skyline College and its programs could benefit from increased marketing, but that activity should not be defined as publicity. Rather, marketing in the broad sense would look for the balance between prospective students, delivery options, and price. The College's ability to set price for its credit programs is constrained; it can, however, compete for price in not-for-credit programming.
- a. Suggested Strategies:
- i. Develop marketing strategies that are predominately link market segments to matched programs. General publicity is helpful, but targeted marketing is critical.
 - ii. Establish explicit goals that match enrollment projection scenarios presented in this Education Plan.
 - iii. Use GIS maps included in the Education Plan to segment the College's service area.
 - iv. Celebrate the College's changing demographics in public forums, including educating key constituencies in the College's service area about Skyline's key role in preparing meeting the reality of a diverse workforce.
- b. Potential Success Factors:
- i. Establishment of an institutional marketing plan consistent with operational unit planning and this Education Plan.
 - ii. Increases in market share as specified by the enrollment scenarios presented in this Education Plan.

5. *Accelerate the use of outcome data in making program decisions.* Skyline College has very good internal data capability which can be used to guide strategy. The College has made dramatic strides over the past several years in the use and application of data and information in planning and decision-making. Current efforts should continue to be supported and expanded including: the implementation of a comprehensive performance measurement system containing a set of integrated indicators and outcomes that will track and measure institutional level outcomes, as well as a process for assessing student learning outcomes at the course and program levels. In addition, a district-wide task force has been set up to design and develop an on-line decision support system which will be deployed in the Fall 2007. This system will provide college leaders and managers ready access to current and point-in-time enrollment and productivity data through a web-based portal. The focus of this work should be to form a more complete picture of total learner experiences within the College especially in the form of longitudinal research on student success.
- a. Suggested Strategies:
 - i. Harvest the data arising from the College's recent subscription to the National Student Clearinghouse which will help it to track former students' transfer patterns to both 4-year public and private institutions as well as transfer to other community colleges.
 - ii. There are no higher education and K through 12 data sharing consortia operating in the San Mateo County. This constrains gathering rich data about students. Skyline College may wish to join forces with its education partners, perhaps under the auspices of the California Partnership for Achieving Student Success (CalPASS), to assess the feasibility of establishing such an entity.
 - iii. Create cohorts of students and track their progress through the institution, especially target groups that match emerging demographics in the College's service area.
 - iv. Use student progression data and transfer data in the program review processes.
 - b. Potential Success Factors:
 - i. Use of expanded outcome data in planning decisions to refine the picture of the progress made by student cohorts, such as developmental skills students referred to math, reading and English remedial courses.
 - ii. Publication of student outcome data that depict post-Skyline experiences and the types of education students are engaged after attending the College.
6. *Consider new programs for which there is no current competition. Strengthen programs with an identified market niche.* This Education Plan has made initial identification of programs that represent competitive advantage for Skyline College and those new

programs that might be implemented that also appear to have a competitive advantage. These information sources should be used to align programs in view of market realities.

- a. Suggested Strategies:
 - i. Develop a schedule prioritized new programs for development based on competitor analyses and upon feedback from industry contacts and supplementary market research.
 - ii. Strengthen existing programs that already possess a competitive advantage.
 - iii. Develop an academic plan that makes use of the College's new three-year planning horizon.
 - iv. Continually scan local labor markets, labor market research, and business/industry contacts to contribute to organizational intelligence about program potential.
 - v. Examine the desirability of noncredit classes as a vehicle for delivering short-term training to business/industry.
- b. Potential Success Factors:
 - i. Creation of a schedule of prioritized programs for development.
 - ii. Implementation of new programs during the 2007-08 academic year, or earlier if appropriate.

7. *Review current programs for under-prepared students.* It is likely that the College will be doing more in this area, rather than less. Downward trends in enrollment are counterintuitive to what is now known about the preparation of high schools students and literacy levels in society in general.

- a. Suggested Strategies:
 - i. Review enrollments in developmental education in closer detail to determine the reasons for enrollment declines. It would be helpful for future strategy to know whether declines are based on greater competition from other providers, changes in placement scores, the effect of secondary school reform, or other issues.
 - ii. Use ongoing contact with secondary schools to share information about competencies required for student success at Skyline.
 - iii. Share the progress of developmental students with the secondary schools that they attended immediately before their enrollment at Skyline College.
 - iv. Address the potential competency gaps between the College's placement testing and the CAHSEE.
- b. Potential Success Factors:
 - i. Increased penetration of the developmental education market segment.
 - ii. Publication of data showing the demographics, past educational experiences, and progress of developmental students over a minimum of two fall terms.

- iii. Commissioning of joint College-secondary school research that identifies skill gaps for students.

- 8. *Seek ways to increase campus internationalization.* It is no secret to those in the Bay Area that they live in a global economy where knowledge of other cultures, languages, and laws is increasingly valued. Skyline College has an firm start in creating a holistic agenda for internationalization with its work in the International Student Program, the Study Abroad Program, the International Business program, cultural events, community outreach, student clubs, an international student center, the Center for International Trade, and efforts to integrate internationalization across the curriculum. An expanded or global perspective helps a student enter the work force with an ability to interact with people from all over the world and be open to a variety of ideas and world views. Further efforts to integrate this perspective within the total programming of the College will provide many advantages for students, faculty, and staff.
 - a. Suggested Strategies:
 - i. Continue to sponsor cultural programs that make use of cultural expertise within existing communities located in Skyline College's service area including Filipino, Hispanic, Asian, African American communities.
 - ii. Explore funding to create an International/Multicultural Center on campus that would promote diversity and knowledge about other countries and cultures.
 - iii. Synergistically build on the strength of existing programs that already seek to promote diversity: Kababayan, Puente, Math, Engineering, & Science Achievement (MESA), African-American Success Through Excellence and Persistence (ASTEP), and Women in Transition.
 - iv. Recruit more international students under the International Student Program.
 - v. Explore the possibility of creating exchanges with other Colleges abroad for students, faculty, and staff. This might be accomplished through existing consortia sponsored by the National Association of Foreign Student Advisors.
 - b. Potential Success Factors:
 - i. An increase in international student enrollment
 - ii. An increase in local cultural expertise brought to campus and integrated within academic coursework
 - iii. Existence of exchange networks.
 - iv. Increased synergy and interconnectedness between and among programs working to promote internationalization.

- 9. *Seek new revenue sources through entrepreneurial actions.* Given the current state of funding, it is clear that Skyline College will only be able to partially meet the financial cost of innovative programs and services it wishes to provide. Therefore, thought needs to

be directed toward increasing support from external resources and accelerated marketing of existing and future college services.

- a. Suggested Strategies:
 - i. Accelerate fundraising efforts among key constituents. The College already has key supporters, many of whom are involved in the President's Council.
 - ii. Consider adding a position dedicated to grant seeking and development.
 - iii. Consider increased fee-based use of College facilities including community use of the revamped fitness center scheduled for Building 3.

- b. Potential Success Factors:
 - i. Increases in unrestricted revenue for strategic program implementation.
 - ii. Expansion of fundraising and friend-raising networks
 - iii. Grants and contracts brought to the College as a direct result of the 501c3's standing with other foundations and nonprofit agencies.

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