This report explains why California should invest in the continued education of its adult citizens and recommends 17 steps as the most urgently needed investment now. The report has two main themes: First, California should increasingly conceive of providing accessible and diversified postsecondary learning alternatives to meet the educational needs of all its adult citizens. Secondly, California now has the opportunity to provide these alternatives. The introduction of the report explains the origins and progress of the Postsecondary Alternative Study which has led to the present document. Then, based on an analysis of the need for learning alternatives and an inventory of all currently existing California resources for meeting this need, Part I of the report identifies seven major unmet needs: (1) Help in the location of educational opportunities; (2) Individual assessment, counseling, and career planning services; (3) Equity for part-time students in state and institutional policies; (4) Educational programs for groups with special needs; (5) Additional off-campus or "external" upper-division and graduate programs; (6) Individualized degree-oriented learning opportunities; and (7) Certification of academic and occupational competence without the need for formal instruction. The 17 recommendations offered in Part II of the report are addressed to these priority needs. The report concludes with an appendix containing cost estimates for the new services proposed in a section of Part II. (WL)
POSTSECONDARY ALTERNATIVES TO MEET THE
EDUCATIONAL NEEDS OF CALIFORNIA'S ADULTS

Richard E. Peterson
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in collaboration with

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Marcia B. Salner
John R. Shea
William M. Shear

The Final Report of a Feasibility Study
Prepared for the California Legislature

September 1975
SUMMARY

This report explains why California should invest in the continued education of its adult citizens and recommends 17 steps as the most urgently needed investment now.

The report has two main themes:

- First, California should increasingly conceive of postsecondary education as lifelong learning to meet the educational needs of all its adult citizens. Not only do accessible and diversified learning alternatives for adults have the potential for reducing social ills such as functional illiteracy, welfare dependence, individual demoralization, and social instability, they offer the prospect of enhancing the state's culture, politics, economy, and general quality of life.

- Second, California now has the opportunity to provide these alternatives. In recent decades, it had to focus its educational resources on the surge of young people who needed schooling and college. Now, having met the needs of young people, it can once again assume leadership in lifelong learning opportunities for adults as well.

Based on an analysis of the need for these learning opportunities and an inventory of all the resources that currently exist in California for meeting this need, Part I of the report identifies seven major unmet needs:

1. Help in locating educational opportunities (p. 56);
2. Individual assessment, counseling, and career planning services (p. 57);
3. Equity for part-time students in state and institutional policies (p. 58);
4. Educational programs for groups with special needs, such as the aged, the handicapped, and the unemployed (p. 58);
5. Additional off-campus or "external" upper-division and graduate programs (p. 60);

6. Individualized degree-oriented learning opportunities (p. 61); and

7. Certification of academic and occupational competence without the need for formal instruction (p. 62).

The 17 recommendations offered in Part II in the report are addressed to these priority needs. Nine of the recommendations can be implemented simply by changes in current state policy and college and university practice, and Chapter Five of the report lists these changes (pp. 73-91). Eight others, however, will require the creation of new state services and programs, and Chapters Six, Seven, and Eight describe in detail these needed innovations (pp. 91-149).

Of the 17 recommendations, the largest number focus on the critical need for equity for part-time and adult students and for groups with special needs. These reforms are needed for reasons of social justice; they also will help the state's colleges and universities adjust to the decline in the 18 to 21 year old population expected in the 1980s.

- Recommendation One calls on California's colleges and universities to "act affirmatively to treat older adults and part-time students along with young people and full-time students as equal members of inter-generational educational communities" (p. 75). The next four recommendations advocate specific reforms.

- Recommendation Two urges the California State University and Colleges and the University of California to adopt more equitable fee schedules for part-time students (p. 77).

- Recommendation Three asks the Legislature, the State Scholarship and Loan Commission, and the governing boards of public institutions to "end discrimination against part-time and adult students in their financial aid policies and practices" (p. 78).
Recommendation Four proposes that the state "establish fee waiver programs to assure needy students access to continuing education and university extension programs (p. 79).

Recommendation Five suggests that "opportunities for concurrent enrollment should be expanded at the California State University and Colleges and the University of California" by reducing concurrent enrollment fees to a point that reflects only the incremental cost of allowing concurrent enrollment (p. 80).

Recommendation Six urges the California State University and Colleges and the University of California to "further extend their regular degree programs to off-campus locations in ways, times, and places convenient to adults" and asks the Legislature to allocate "program development funds to both systems" to design new programs and to underwrite their operating costs on approximately the same basis as similar on-campus programs (p. 83).

Recommendation Eight proposes that the California Postsecondary Education Commission receive an annual appropriation with which to make competitive matching grants to public and private institutions for programs designed "to meet the learning needs of particular groups who have not been well served by the state's postsecondary institutions or who require special education services" (p. 88).

Four of the recommendations urge creation of new educational services through new agencies or organizations:

- Recommendation Ten, to meet the highest priority needs, proposes a statewide system of "Educational Services Centers" to provide "information and referral, assessment of interests and competencies, counseling and career planning, and aid to individuals in coping with institutions" (p. 98).

- Recommendation Eleven suggests creation of a statewide "individualized learning program" to meet the need for "individually designed degree programs that take into account students' unique backgrounds, current life circumstances, and career interests" (p. 101).
Recommendation Twelve suggests a statewide "learning validation service" to meet the need for academic certification of persons who have acquired knowledge or skill in other than academic settings by awarding degree credit for prior learning, granting associate, bachelor's, and master's degrees on the basis of demonstrated knowledge and skill, maintaining a credit bank, and providing a record of all career-relevant experiences for those wanting this service (p. 109).

Recommendation Thirteen proposes creation of a "Comprehensive Adult Learning Service" comprised of these three new services, to be operated by a new independent institution (p. 139).

Four other recommendations involve needed data collection and dissemination services to undergird all the proposed changes and to assist both public and private colleges and universities better serve potential students:

Recommendation Fourteen suggests that the California Postsecondary Education Commission initiate a continuing "postsecondary needs analysis service" to provide institutions and state-level planners with information about interest and demand for education (p. 145).

Recommendation Fifteen asks that the Commission operate "regional postsecondary program clearinghouses" to supply current information about educational resources and opportunities (p. 146).

Recommendation Sixteen suggests that the Commission establish a network of "media resource clearinghouses" to facilitate "efficient use of existing and new media-based instructional resources" (p. 147).

Recommendation Seventeen proposes that the Commission launch a "public information program about all available postsecondary opportunities" and especially the information and counseling service (p. 149).

Finally, the recommendations advocate action by particular agencies to seek solutions to two major state problems that affect adult learning opportunities:
Recommendation Seven calls on the California Postsecondary Commission and the State Department of Education to jointly review "existing sources of support and formulas for allocating resources to school districts and to community college districts" in order to resolve inconsistencies in funding between the two segments, and urges the Legislature to convene a high-level task force "to devise more rational bases for support of all types of postsecondary education offerings" (p. 86).

And Recommendation Nine asks state agencies and institutions to work toward occupational licensure and certification "on the basis of specified skills and competence rather than particular amounts or types of education," and advocates a task force study of certification and recertification in order to develop a coordinated state policy (p. 90).

Viewed against the present range of postsecondary programs in the state, these 17 recommended reforms and new services are small. However, together they form a series of steps which can lead to a new understanding of postsecondary education as lifelong learning, and thereby open a new era of opportunity for California adults of all ages.

The Introduction of the report explains the origins and progress of the Postsecondary Alternative Study which has led to the present document.

Chapter One, "Lifelong Learning in the Public Interest," explains why California should strengthen its support of adult learning and provides historical background about the present status of adult education in the state (pp. 13-21).

Chapter Two, "The Need for Adult Learning," summarizes the present and likely need of Californians for educational opportunities beyond the high school (pp. 23-34).

Chapter Three, "Resources for Adult Learning," inventories the extensive range of postsecondary opportunities that already exists within the state (pp. 35-53).
Chapter Four, "Unmet Needs: The Gap Between Needs and Resources," describes the seven critical needs listed above and analyzes barriers that currently prevent their fulfillment (pp. 55-71).

Chapter Five, "Using Existing Services," shows how changes in current policies and practices can resolve several of these unmet needs (pp. 73-90).

Chapter Six, "Creating New Services," describes three new educational services needed to help adults realize their full potential (pp. 91-109).

Chapter Seven, "Implementing the New Services," outlines alternative organizational strategies for implementing the three new services (pp. 111-142).

Chapter Eight, "Supporting Improved Institutional Performance," discusses the four data collection and dissemination services which the California Postsecondary Education Commission should undertake (pp. 143-149).

Chapter Nine, "Priorities and Concluding Observations," summarizes the recommendations and considers them in a broader educational and social context (pp. 151-161).

The report concludes with an Appendix containing cost estimates for the new services proposed in Chapter Six.
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INTRODUCTION

This report has a simple message:

1. California benefits as a state from providing opportunities for lifelong learning to its citizens.

2. Presently, however, state policies and institutional practices have the effect of discouraging many adults from continuing their education.

3. By redirecting institutional resources as well as creating several new adult learning services, the state can meet the educational needs of its adults and begin a redefinition of postsecondary education to lifelong learning.

Origins of the Report

The report stems originally from the work of the Legislature's Joint Committee on the Master Plan for Higher Education, chaired by Assemblyman John Vasconcellos. The Joint Committee was created in 1970 to assess the achievements of the 1960 master plan, including the three-tiered system of public institutions it defined—the community colleges, the California State University and Colleges, and the University of California. The Committee concluded that this system was basically sound, but it held that the three separate segments inadequately met the needs of many adult learners. It suggested that an integrated statewide effort in off-campus learning for adults would be more effective than a "fragmented effort with each segment defining its own goals and interests" (Joint Committee, 1973, p. 57).

The Committee proposed the creation of a fourth public segment of higher education, California Cooperative University, "to coordinate the efforts of the segments in extended learning and to provide programs under its own auspices when there are needs the segments are not meeting." It recommended (p. 58):
The Legislature, through the Postsecondary Education Commission or a joint committee, in either case with the assistance of a citizens' advisory committee, shall develop a plan for the establishment of this segment, including governance mechanisms and representation on the Postsecondary Education Commission.

The Legislature implemented this recommendation in Senate Concurrent Resolution No. 81 (1973) by directing the Joint Committee to contract with a private consulting firm to undertake "a limited study of higher education in California by determining the feasibility of implementing an external higher education program in the state which leads to A.A., B.A., and B.S. degrees and certificates of achievement."

In response to this directive, the Legislature and the Governor appropriated $150,000 in the Budget Act of 1974 to the Joint Committee on Postsecondary Education (successor to the earlier Joint Committee) for "studying and testing the need, design, and feasibility of a university without walls in California."

In June 1974, the Committee requested proposals for this study. The question of whether to create a "fourth segment" to implement the external degree program or the university without walls was one of the major issues of the study.

From among the proposals received, the Joint Committee selected the one from the Educational Testing Service in Berkeley for a study to be directed by Richard E. Peterson, Research Psychologist in the ETS Western Office and aided by K. Patricia Gress and Pamela Focils of the ETS staff and JB Len Befferlin of Jossey-Bass Inc., Publishers, in San Francisco. To expand the scope of the study, ETS invited other scholars to join the research group as subcontractors:

- Richard L. Clark, then at Stanford University and now Chairman of the Department of Instructional Technology, School of Education, Syracuse University;
Harold L. Hodgkinson, then at the University of California, Berkeley, and now Director of the National Institute of Education in Washington, D.C.;

David P. Rubin, Director of Media Services for the Stanford Center for Research and Development in Teaching;

John R. Shea, then Associate Research Economist of the Center for Research and Development in Higher Education and now Senior Fellow with the Carnegie Council on Policy Studies in Higher Education; and

William M. Shear, Academic Vice President of Armstrong College in Berkeley.

In addition, the Joint Committee contracted separately with Marcia Salner of the School of Education, University of California, Berkeley, to conduct an assessment of existing postsecondary programs for adults in California.

When the Joint Committee on Postsecondary Education went out of existence in November 1974, the study continued under the auspices of the Joint Committee on Rules.

Design of the Project

The project began on October 1, 1974, with the title, "Postsecondary Alternatives: Meeting California's Educational Needs." By using the term postsecondary, the staff indicated its concern for all education beyond the high-school years--not only in colleges and universities but in adult schools, proprietary schools, business and industry, and elsewhere. By postsecondary alternatives, the staff sought to focus on options beyond the traditional system of full-time enrollment, on-campus student residence, standardized curricula, and classroom instruction that has dominated most of higher education. While this traditional system remains valid for many students, it unnecessarily restricts others, and particularly those over the conventional "college age" years, from reaching their learning goals.
The central question for the project has been, "How can California most effectively structure its educational options beyond the high school to meet the legitimate learning needs of all its citizens?" To answer this general question, four separate questions required attention in sequence:

1. What are the present and foreseeable educational needs of adult Californians?
2. What educational resources already exist or are being planned to meet these needs?
3. Where are there gaps between needs and resources?
4. How can these gaps most effectively be narrowed?

For answers, the staff undertook the following activities, each of which resulted in a technical report accompanying the present report:

- First, the staff studied the educational needs of California adults in three different ways: (1) It analyzed enrollment trends in education beyond the high school; (2) it developed a series of questions about educational interests and contracted with the Field Research Corporation to interview a systematic sample of 1,048 California adults about them; and (3) it examined projections about the future of California society in order to determine the learning opportunities that may be required eventually in the state. The results of this first phase of the project appear in California's Need for Postsecondary Alternatives, Part One of the First Technical Report of the project (Hefferlin, Peterson, and Roelfs, 1975), and are summarized in Chapter Two.

In addition, the staff analyzed the needs of seven diverse California communities--Auburn, Bakersfield, Eureka, Central Los Angeles, North Oakland, Northridge-Chatsworth, and Santa Cruz--as case studies to complement the statewide survey. During October and December, the staff met with some 125 community leaders and close to 900 residents of these cities to learn firsthand about the educational interests of the townspeople and the
obstacles they face in seeking to fulfill them. The results of these seven case studies appear in Community Needs for Postsecondary Alternatives, Part Two of the First Technical Report (Peterson, et al., 1975).

- Second, Marcia Salner inventoried present efforts in California to serve the educational needs of high-school graduates and adults who are not "typical" college students— in particular, college-age young adults who are interested in nontraditional forms of education and adults of all ages with job and family responsibilities which preclude them from full-time on-campus study. Her synthesis of this information appears in An Inventory of Existing Postsecondary Alternatives, the Second Technical Report, and is summarized in Chapter Three below.

- Third, Harold Hodgkinson and William Shear analyzed the "non-instructional" educational services, such as educational counseling and the award of credit for prior learning, that Californians need for their personal development. They developed a model of how California can provide such services to all interested adults in the state, and their proposals appear in Non-Instructional Services as Postsecondary Alternatives, the Third Technical Report. Their ideas contributed to the recommendations in Chapters Six, Seven, and Eight of this report.

- Fourth, Richard Clark and David Rubin examined the available and potential technology for providing educational services to Californians—from broadcast television and computer-assisted instruction to video cassettes and communications satellites. From their comparison of California with other states and nations, they concluded that the state should not invest heavily in a single major technological system, such as televised instruction. Their analysis appears in Instructional Technology and Media for Postsecondary Alternatives, the Fourth Technical Report of the project, and is used in Chapters Three and Eight of this report.

- Fifth, John Shea analyzed the financing of postsecondary education in California and the options open to the state in funding new educational programs for adults. He developed estimates of the costs of various organizational models proposed in this report and examined the implications of various financing plans. His
analyses can be found in Financing for Postsecondary Alternatives, the Fifth Technical Report, and have contributed to Chapters Five through Eight and the Appendix.

Besides reviewing other research, visiting prototypic institutions, and meeting with interested groups and individual visitors, between October and June the staff met at least every other week to review survey findings and discuss the gaps between needs and resources and how they could best be closed. It soon became evident that although the Legislature originally intended that the study concentrate on external degrees, other equally important adult learning needs required attention as well—for example, the need of potential learners for better information about educational opportunities and counseling about career plans. As a result, this report responds to the Legislature's interest in external degrees by placing recommendations regarding this need in the perspective of a total of 17 recommendations concerning ways in which the state can better serve the lifelong learning needs of its citizens.

**Organization of the Report**

The nine chapters of this report follow the sequence of questions that have guided the project staff in their research. Part I, consisting of the first four chapters, analyzes the need for new adult learning opportunities in California. Part II, the remaining five chapters, outlines strategies for providing these opportunities.

- Chapter One introduces the rationale for state support of lifelong learning and reviews California's loss of leadership in this field.
- Chapter Two describes the need for postsecondary alternatives in California, based on three different approaches to assessing educational need.
- Chapter Three surveys the resources that already exist to meet this need and assesses their potential for further service in the future.
Chapter Four identifies seven serious gaps that exist between these needs and resources, and indicates barriers or obstacles that have led to these gaps.

Chapter Five points to ways that existing institutions can overcome some of these gaps, through both reallocation of institutional resources and additional state support.

Chapter Six suggests three new services that California should launch in order to bridge the remaining gaps.

Chapter Seven analyzes how these services can best be organized and implemented.

Chapter Eight describes four information services needed by existing institutions to better carry out their instructional missions.

And Chapter Nine puts all these suggested innovations in priority order together with a review of several broad issues confronting California education at large.

Finally, a technical appendix outlines the projected costs of the new services recommended in Chapter Six.

Antecedents of the Report

These suggestions for California may be viewed as part of an expanding movement in the United States and elsewhere in the world to open education to more adults throughout their lifetimes. Within the past five years in this country, for example, three influential higher education study groups have recommended broad reforms, and both state systems and individual institutions have begun to adopt many of their recommendations.

The first of the three, a federal Task Force on Higher Education chaired by Frank Newman, then at Stanford, called for government support to increase diversity and experimentation within higher education (1971). Among the consequences of its work have been a funda-
mental shift in federal support from institutionally-based programs to individual students and the creation of the Fund for the Improvement of Postsecondary Education, now aiding some of the most creative experiments in education beyond the high-school throughout the nation.

The second group, the Carnegie Commission on Higher Education, chaired by Clark Kerr, has advocated a multitude of changes in postsecondary education. Among its numerous reports, *Less Time, More Options* (1971) stimulated widespread questioning of such academic conventions as the four-year course of study for the bachelor's degree and the award of academic credit only for institutionally-sponsored learning. *Towards a Learning Society* (1973) proposed ways to extend education beyond educational institutions into the everyday life of the larger society. *And The Campus and the City* (1972) suggested the creation of Metropolitan Educational Opportunity Centers chiefly to counsel prospective students.

The third group, the Commission on Non-Traditional Study, chaired by Samuel B. Gould and funded by the Carnegie Corporation of New York, urged educators to create more learning opportunities for adults unlimited by place or time restrictions. Its final report, *Diversity in Design* (1977), set national and international perspectives for the coming movement, and offered 57 recommendations concerning support for lifetime learning, services other than degree programs, faculty development, educational technology, instruction and counseling services, evaluation of non-traditional learning, and cooperation between colleges and other community agencies.

Beyond the United States, the same movement for wider lifelong educational options is evident, epitomized by the report, *Learning to Lead* 1979, of the International Commission for the Development of Education convened by UNESCO and chaired by Eliseo Panfile of France; and the work of the International Council for Educational Development, whose Higher Education for Development project has been directed by Howard Thompson.

The present report draws on these ideas and experiments. It stands not as an end but rather as a beginning. It seeks to point in light of the world's united educational needs and resources.
Advisors to the Project

Aiding the study have been three essential groups listed at the end of this introduction: its California Advisory Committee, comprised of 27 knowledgeable citizens from throughout the state; a National Advisory Panel of six well-known educators with either direct experience or broad familiarity with new forms of post-secondary learning; and a Segmental Liaison Group of six representatives of the several segments of California postsecondary education whose work will be affected by the recommendations of the project.

Members of these groups met with the staff in several general meetings to help guide the direction of the project and react to its needs analyses and preliminary conclusions. They also provided information and advice through correspondence and individual conversation.

William H. Deegan, William K. Haldeman, and Kenneth M. O'Brien, staff members of the California Postsecondary Education Commission, offered continuing advice and helped coordinate this project with several of their own studies. Members of AEGLA (Adult Educators of Greater Los Angeles) commented on several draft reports. Jeff Frivis, Fita Riser, Mark Schwartz, Jeannette Scovill, Paul Wengler, and Rick Westergard, the six members of the Student Advisory Committee to the California Postsecondary Education Commission, reacted to a draft of the final report, as did five other students--Evelyn Carr, Isaac Dixon, Willice E. Groves, Harriet Markell, and William Yann. Finally, William K. Haldeman, Dale M. Neckman, Leland L. Melsker, and Wellford W. Wilms advised Marcia Sailer in conducting the inventory of existing educational resources.

Legislative liaison has been provided by Russell T. Garth, Consultant to the Joint Committee on Rules, who coordinated the logistics of the project and generally monitored the study through to its completion. Assisting him and the entire staff has been Dolores Saint Marick, Secretary to the Assembly Permanent Subcommittee on Postsecondary Education.

To these associates as well as many others throughout the state who offered informal consultation, we extend sincere thanks.
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PART I:

IDENTIFYING NEEDS AND RESOURCES
CHAPTER ONE

LIFELONG LEARNING IN THE PUBLIC INTEREST

Gayle McKee of 2218 Spring Street in Eureka has no time for arts and crafts. She has raised her 17-year-old son by herself as a sales clerk, but now medical problems have forced her to seek an office job at a desk instead. To develop her office skills, she needs retraining in the "three Rs" to increase her reading speed, review the principles of writing, and renew her acquaintance with mathematics. "Women my age get panicky about studying when they've been out of school as long as I have," she says. But she and other women like her require such retraining to support themselves and their families.

Ronald Lopez of Ventura is the first male counselor ever hired by the Frank A. Colston Home for Girls to work with its youngsters. He has finished his undergraduate studies, but to increase his counseling skills he needs to take specialized professional courses at the master's level. He cannot afford to enroll at any nearby private college or to travel 100 miles a day to attend the University of California at Santa Barbara. Yet without further skills, he won't be able to keep his job.

Jennifer Kaffelback supervises coronary care nursing at the Manteca General Hospital. She not only wants to be a better nurse, she has considered eventually becoming an independent family nurse practitioner. As the mother of two small children, she cannot commute to Sacramento or Fresno for professional courses; but she is eager to continue her learning if she can somehow take evening or weekend courses near Manteca.

The educational needs of Gayle McKee, Ronald Lopez, Jennifer Kaffelback and thousands of other Californians are no less important than those of young people. Rather than reducing state commitments to the education of adults, California should strengthen its support of adult learning for at least four reasons:
Social Justice and Equity

In the words of the California state constitution, "a general diffusion of knowledge and intelligence" is essential "to the preservation of the rights and liberty of the people" (Article IX). This diffusion of knowledge and intelligence should not be limited to youngsters; it should include adults as well. California cannot wait until the next generation grows up to develop a more knowledgeable and intelligent population. It is unable to solve its problems by the training of the young alone.

Some people might expect adults simply to educate themselves as independent learners. Many can, but many others cannot. The intellectual development and fulfillment of educational aspirations of adults—not only among the inadequately educated but among the highly skilled—requires organized instruction and assistance from experts.

Contrary to some beliefs, California does not lead the nation in educational attainment. As of 1970, six other states surpassed it in the proportion of their adults who had completed high school or some college (Bureau of the Census, 1972, p. 1-468). And while the state provides many educational opportunities for young adults who can study full time, beyond the first two years of college it restricts access for older adults who must earn a living or raise a family. The working man or woman, the homemaker, the poor, the elderly, the minorities—all tend to be excluded from these opportunities. State policy and institutional practice discriminate against those who cannot afford to pay the total costs of education. And most who do not live within commuting distance of a campus lack off-campus opportunities to work toward a degree.

In short, while childhood and youth education are undeniably important, adult learning is equally essential.

Human Investment

Adult learning is a good state investment. The rapidity of social change in California makes inadequate a "one-chance" educational system where opportunity exists primarily for youth. State support for adult education permits people of all ages to continue to
develop their full potential as citizens and human beings. It allows them to keep up to date with their skills, develop new competence, and adjust to the growth of knowledge and the change of culture. And it may well help to reduce costly social services, social instability, and individual demoralization.

In addition, technologically advanced societies such as California's require periodic renewal of their human capital. This economic need for adult educational opportunity is explained by economists such as Herbert Striner in this way (1972, pp. viii, vii):

an advanced industrialized society must see the continuing education, training, and retraining of its labor force as a national capital investment....

in an economy which is based upon technological change, where the rate of change itself is of importance, the presence of a large number of adults whose inadequate level of education or training freezes them out of the new economy also becomes a retarding force in that economy.

an expanding economy whose expansion depends heavily upon new products, new technologies, and new distributions of incomes must also have a labor force constantly being refitted, retrained, and reeducated to meet these needs. To do less is to invite continuing unemployment, inflation, loss of markets, and a national sense of frustration.

Some may believe that unemployment is widespread among well-educated Californians, and that the state should therefore invest less in education. Yet in reality, unemployment is far higher among those with less schooling than among the well-educated (Bowen, 1974, p. 15).

Educational Efficiency

The timing of the educational experience is critical. A “second chance” educational system is more efficient than a one-chance system. Californians should
have the opportunity to avail themselves of learning when they aspire to it and when they need it rather than when they are young, since everyone learns more readily when the benefits of learning are most clear to them. Willard Wirtz, former Secretary of Labor, says that "modern life has become too much divided into education for the young, work for adults, and leisure for the elderly and too neglectful of the need to ease the transition between one experience and another" (Carnegie Corporation, 1975, p. 6). And in its 1973 report to the California Legislature, the Joint Committee on the Master Plan correctly observed (p. 40):

Most educational planning, including projections of financial aid needs, is based upon assumptions about a "college age" population, usually between eighteen and the mid-twenties. Such assumptions create impressions among young people that they should be in postsecondary education whether or not they have need and motivation; older persons are led to believe there is no place for them in postsecondary education. Yet the decision about when to attend postsecondary education should be highly individual. Some people may be ready to benefit from postsecondary education at the age of 17, others would be better served at 45.

Currently, California provides for the 17-year-old to the neglect of the 45-year-old. By expanding "second-chance" opportunities for adults of all ages, unnecessary college attendance among late adolescents can likely be reduced.

Demographic Imperatives

The demographic facts of life require greater attention to adults. Over the next quarter century, the bulk of California's population growth will occur among the age groups over 35. With more adults of all ages interested in further learning, more Californians are likely to need adult education than elementary education. The Population Research Unit of the State Department of Finance forecasts that while the state's population at large will increase 38 percent between now and the year 2000, only two groups will increase by over 50 percent:
adults between ages 35 and 50, whose numbers will increase by 79 percent, and those over 65, expanding by 53 percent. In contrast, the numbers of elementary school-age children will grow by only 37 percent and high school and "college age" youth will increase only 16 percent.* In fact, between 1980 and 1990, the number of eighteen to twenty-one year olds is expected to decline by 12 percent. This demographic change will permit state resources to be reallocated to adult learning from collegiate education.

By the turn of the century, the median age of Californians is likely to be 35 rather than 27 as at present. As the Carnegie Commission on Higher Education has noted, the need for expanded adult learning opportunities is emerging at a time when our schools and colleges are best able to deal with it. "The rapid, almost frantic growth of the 1950s and 1960s is over.... Teachers are readily available.... The present opportunity to act constructively should not be allowed to pass unheeded" (1973, p. 105).

These considerations—social justice, human investment, educational efficiency, and demographic change—call on California to return to its earlier leadership in lifelong learning. Since the 1950s, of necessity it has focused its educational resources on young people. Now the times both require and permit renewed attention to adults.

Leadership and its Loss

Historically, California led other states in its development of education for adults:

*By five-year age intervals, this is the expected rate of increase between 1975 and 2000:

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<tr>
<td>0-4 years</td>
<td>47%</td>
<td>60-64 20%</td>
</tr>
<tr>
<td>5-9 years</td>
<td>30-34 23%</td>
<td>65-69 27%</td>
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<tr>
<td>10-14 years</td>
<td>35-39 77%</td>
<td>70-74 49%</td>
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<tr>
<td>15-19 years</td>
<td>40-44 93%</td>
<td>75-79 74%</td>
</tr>
<tr>
<td>20-24 years</td>
<td>45-49 67%</td>
<td>80-84 78%</td>
</tr>
<tr>
<td>25-29 years</td>
<td>50-54 40%</td>
<td>85+ 89%</td>
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In 1856, within six years of statehood and only nine years after New York City, its citizens created its first evening school for adults—in the basement of St. Mary's Cathedral in San Francisco.

In 1891, 23 years before Congress passed the Smith-Lever Act for agricultural and homemaking extension, the Regents of the University of California organized the University's first institutes for farmers. That same year the University offered its first extension course, on the tragedies of Shakespeare, to a total of 170 men and women in the San Francisco Academy of Sciences.

By 1908, the University, in cooperation with the State Department of Agriculture and the Southern Pacific Railway, was sending demonstration trains throughout the state to show farmers at railway sidings the results of its agricultural research.

In 1908, nine years before the federal Smith-Hughes Act for vocational education, California amended its constitution to grant state support to evening high schools and in 1921 it increased this support.

In 1909 the Legislature authorized the creation of county libraries in order to serve all its citizens, both rural and urban, rather than only the residents of cities and towns.

In 1926, the new Department of Adult Education in the State Department of Education introduced its prophetic "California Plan for Adult Education," and in 1927 it created the California Association for Adult Education to implement the plan.

In 1944, the State Advisory Committee on Adult Education, with representation from both the State Department of Education and the University of California, approved the basic principle of free education "to persons of all ages and at all levels of instruction."

But in 1951, this momentum began to falter:

A interim committee of the State Senate denounced "drills" within adult education in the schools and oversaw the rewriting of the state's Administrative Code and Education Code to tighten program procedures.
Then in the 1960s, the state turned its attention to accommodating the waves of students graduating from high school. It helped increase the number of community colleges to nearly 100, transformed its state colleges into 19 multipurpose institutions, and expanded the University of California to nine campuses. Under its landmark Master Plan for Higher Education in 1960, California became the first state or society ever to commit itself to providing a place in higher education to every high school graduate or eighteen-year-old who was able and motivated to benefit therefrom (Joint Committee, 1973, p. 33). But the Master Plan epitomized this emphasis on youth: it gave legitimacy to the concepts that college was designed essentially for eighteen to twenty-one year olds and that the state's primary concern was to youth enrolled in on-campus degree-credit programs.

Although the Master Plan Survey Team called for "adequate state support of adult education," it recommended that in determining which adult programs to support, the state should "differentiate between those enrollees who are pursuing a stated planned program with definite occupational or liberal education objectives, and those who are enrolling in single courses for which matriculation or prerequisites are absent" (Master Plan Survey Team, 1960, p. 145). Adults who could not enroll in degree programs or were able to take only one or two courses could make do with correspondence, extension, or continuing education courses, and with paying almost their full cost.

In the mid-1960s, the State Committee on Continuing Education, the single direct advisory body to the Coordinating Council on Higher Education, was allowed to disappear.

In 1968-69, the legislature eliminated the last vestiges of its historic financial assistance for University Extension, when it acted with its Legislative Analyst's contention that "the very success of University Extension "undermined its ability to perform as a self-supporting educational program" (Post, 1968, p. 331).

Into the 1970s, the state has systematically discriminated against part-time or adult students by barring them from state scholarships and other forms of financial aid.
Most recently, when the Department of Finance discovered in May of this year that participation in adult education was growing so rapidly that the unanticipated cost to the state of average-daily attendance (ADA) support to community colleges, regional occupational centers and programs, and adult education within the schools was approaching $118 million, it limited the increase in ADA for which the state would pay in 1975-76 to 5 percent of its 1974-75 support despite its projections that enrollments would rise by 9 percent.

Finally, the Governor's budget recently eliminated most of the 1975-76 funding for the California State University and Colleges program and the University of California program designed specifically to aid part-time and off-campus learners--CSUC's "1000 Mile Campus" Consortium and the University's systemwide Extended University.

Thus, in the past thirty years, the state succeeded superlatively in opening its system of higher education to all high school graduates. It set a standard for open access to youth that other states emulate and it can be justly proud of its investment in a State University and College system larger than any other in the nation and a University system whose flagship campus has been rated among the best in the nation. But by seeking to meet the educational needs of post-World War II youth so well, California began to discriminate against the needs of its adults, and while it implemented its commitment to youth, other states began to develop new ways to offer educational opportunities to all adults. In 1954, Brooklyn College in New York began its experimental program of credit for experience toward its degrees; in 1958, the University of Oklahoma opened its Bachelor of Liberal Studies program for adults; in 1963, Goddard College in Vermont announced its special adult degree program; in 1970, the Regents of the University of the State of New York launched their Regents External Degree program for adults; and in 1971, the State University of New York organized its pioneering institution for adults, Empire State College; in 1972 Minnesota and New Jersey followed suit with Minnesota Metropolitan State College and Thomas A. Edison College, and now the non-campus Community College of Vermont system has become a state enterprise. States that until now have not been educational leaders have begun to leapfrog ahead of California.
Now that California has met its responsibilities for the education of college age youth, it should strongly consider regaining its earlier leadership in adult learning. As the most advanced state in the nation socioeconomically, it has greater need than other states for a variety of postsecondary alternatives. The following chapters outline this need and suggest the elements of a policy for lifelong learning to meet it.
Besides Gayle McKee, Ronald Lopez, and Jennifer Haffelback, somewhere around 8.4 million other Californians among the state's 14.7 million adults would like to engage in some form of further learning beyond high school. Wayne Reynolds of Santa Cruz seeks additional study as a community agency outreach worker. Ruth Eloi of Oxnard is enrolled in a part-time degree program to secure a better job within county government. David Duran of the McKinleyville High School would take courses at Humboldt State to increase his high school teaching skills if red tape didn't discourage him.

Elsewhere, in Bakersfield, a television newscaster would like to enroll in university-level courses on the weekend if they ever become available in the San Joaquin Valley. In Oakland, a master mechanic in electronics who works a rotating shift has difficulty rotating his education on the same schedule. And in Hoopa a Native American secretary of the Yurok tribe would be able to attend class once a week but finds that most classes in her region are scheduled for at least two nights a week.

To determine on a statewide basis the educational needs of adults such as these, a variety of approaches could be used. Three of them are employed here:

1. Statistics of the demand for education in terms of actual enrollments;

2. Estimates of the potential interest in further education by surveying Californians about their hopes and aspirations for additional learning; and

3. Projections of the future requirements of the state for educated citizens.

Each of these three measures is by itself insufficient. Together, they portray the magnitude of postsecondary needs in California. The first of these measures—evidence of demand through enrollments—shows the number
of citizens who currently take advantage of educational opportunities. The second--evidence of interest--includes as well those adults who would like to continue their education but who are currently unable to achieve their hopes. The third--evidence from social and economic trends--includes in addition those adults who are neither presently enrolled nor interested in further study but who may need new skills and training to function effectively in the California of the future (Hefferlin, Peterson, and Roelfs, 1975, pp. 2-3).

Educational Demand

Perhaps the most obvious measure of need is the demand evidenced by enrollment. Although most estimates of the demand for education beyond the high school focus only on high-school graduates between the ages of 18 to 21 and on the colleges and universities that offer full-time degree programs for them, such a focus is inadequate for California. Its need for postsecondary opportunities extends across all age groups from late adolescent to retired adult and involves not only colleges and universities but adult schools, technical institutes, regional occupational centers, on-the-job training, and informal and individual study.

Thus, this past year some 1.8 million, or about 13 percent of California's adults, were enrolled in colleges and universities. But it is estimated that over 3.5 million or 25 percent, engaged in study at some educational institution (Hefferlin, Peterson, and Roelfs, 1975, p. 7), and several million more were probably involved in informal, occupational, and community-based education ranging from Cooperative Extension programs to recreation department classes and lessons with private instructors.

The most marked enrollment growth in recent years has been in high school adult programs, Regional Occupational Centers and Programs, and community colleges. According to a Fall 1975 survey conducted for the Department of Finance, at least 60 percent of adult Californians have taken at least one course or attended some educational institution since they left high school.
And among the 1,048 adults interviewed for the Postsecondary Alternatives study in November 1974, 35 percent of those under 30 reported being engaged in some kind of education beyond high school at that time, as did 20 percent of those in their thirties and forties, 18 percent of those in their fifties, and 3 percent of those over 60. (Hefferlin, Peterson, and Roelfs, 1975.)

The demand for education among adults older than traditional "college age" youth is growing at a rapid rate. Between 1963 and 1973, for instance, the number of part-time students (most of them older adults) jumped 122 percent in the state's colleges and universities, while the total number of adults over 21 grew no more than 30 percent and while full-time enrollments increased by only 46 percent (California State Department of Finance, 1964, 1974).

More important, these part-time enrollments have been increasing at an increasing rate, while the growth of full-time enrollments has been slowing down. Not only did they grow almost as much in the three years between 1970 and 1973 as in the seven years from 1963 to 1970 (46 percent, compared to 52 percent), in those three years they grew six times as much as full-time enrollments (46 percent, compared to 7 percent). During the 1980s, when full-time enrollments may actually decline in number, part-time enrollments will probably continue to increase.

But most important of all, the adults who are presently enrolled in postsecondary institutions do not represent a cross-section of Californians who are interested in further learning. Not only are they younger, they represent a disproportionate number of men compared to women, of whites compared to minorities, of the already well-educated compared to the less educated, of white-collar workers compared to blue collar, and of the well-to-do compared to the poor. In other words, present demand is not based simply on different rates of interest in education among groups of California adults, but on disproportionate ability of some groups to enroll and attend. Plans for postsecondary education in California thus cannot be based only on the growing demand for more education in terms of enrollment, but in addition should be based on the numbers of Californians who need and want further education but because of various obstacles cannot now gain it.
Expressed Interest

The great interest that exists for lifelong learning in California is illustrated in the seven diverse communities studied for this project—from Eureka in the north to Central Los Angeles in the South (Peterson et al., 1975). But to determine the extent of this interest on a systematic statewide basis, the 1,048 California adults mentioned earlier were interviewed about their learning interests. Three out of five (59 percent) of them said they are interested in participating in further learning beyond high school within the next two years. Thus for every Californian now attending an adult school, college, or university, another would like to engage in further learning but for some reason is not now doing so.

Studies by the University of California and the California State University and Colleges support this finding:

- In a survey of adults in Los Angeles County, the University found that 64 percent of the high school graduates replied affirmatively when asked, "If, in the near future, you could go to college on a part-time basis without giving up your work or your other full-time activities, would you like to do it?"

- Researchers for the California State University and Colleges found interest in further professional study among 67 percent of the employees surveyed in California's Department of Mental Hygiene, among 80 percent of those in the California Youth Authority and the Employment Development Department and among 83 percent of the members of the California Highway Patrol (Hefferlin, Peterson, and Roelfs, 1975, p. 31).

National data gathered in 1972 by the Commission on Non-Traditional Study are comparable. Among a sample of 2,004 Americans, 77 percent reported that they would like to know more about particular subjects or learn new skills (Carp, Peterson, and Roelfs, 1974, p. 15). Only 23 percent said they were uninterested in learning new things.

Scope of Interest

The Postsecondary Alternatives interviews reveal
not only that interest in continued learning among the state's adults is extensive; it is both serious and sophisticated. In contrast to the belief of some that the educational concerns of California adults are limited to wine tasting, fly tying, and astrology, their fields of interest are intellectual, highly specialized, and widely diverse. Subjects range from astronomy and aviation through coronary care, drill press operation, Latin, and law enforcement to pipe fitting, pottery, tax accounting, welding, and zoology. As the list below notes, 47 percent of the potential learners are interested in occupational or professional skills, and fully a fourth seek traditional liberal studies (Hefferlin, Peterson, Roelfs, 1975, p. 40).

Classification of Responses to the Question, "What is the ONE subject, topic, or skill that you would like to study or learn more about?"

<table>
<thead>
<tr>
<th>Vocational Subjects (47%)</th>
<th>Hobbies and Recreation (13%)</th>
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<tbody>
<tr>
<td>Business Skills</td>
<td>Fine and Visual Arts</td>
</tr>
<tr>
<td>Technical Skills</td>
<td>Crafts</td>
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<tr>
<td>Industrial Trade</td>
<td>Performing Arts</td>
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<tr>
<td>Education</td>
<td>Sports and Games</td>
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<tr>
<td>Management Skills</td>
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<tr>
<td>Computer Science</td>
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<tr>
<td>Law</td>
<td>Home and Family Living</td>
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<tr>
<td>Nursing</td>
<td>Child Development</td>
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<tr>
<td>Medicine</td>
<td>Sewing, Cooking</td>
</tr>
<tr>
<td>Salesmanship</td>
<td>Gardening</td>
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<tr>
<td>Agriculture</td>
<td>Home Repairs</td>
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<tr>
<td>Commercial Art</td>
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<tr>
<td>Engineering</td>
<td>Personal Development</td>
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<tr>
<td>Medical Technology</td>
<td>Personal Psychology</td>
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<td></td>
<td>Physical Fitness</td>
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<tr>
<td>General Education</td>
<td>Religious</td>
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<tr>
<td>Languages</td>
<td>Public Affairs</td>
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<tr>
<td>Physical Sciences</td>
<td>Other Subject, Topic, or Skill</td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
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<tr>
<td>Humanities</td>
<td></td>
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<tr>
<td>Biological Sciences</td>
<td></td>
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<tr>
<td>English</td>
<td></td>
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<tr>
<td>Basic Education</td>
<td></td>
</tr>
<tr>
<td>Creative Writing</td>
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</table>

TOTAL 100%
Extrapolating these findings to the adult population of California (now approximately 14.8 million), as many as 700,000 of the state's adults may be interested, for example, in learning more about business, and some 500,000 are likely interested in learning one or another language, while less than 100,000 are interested in studying either religion or public affairs.

Besides further study, Californians in large numbers would make use of educational services beyond formal courses and instruction if these services were available at low cost and in convenient locations. Between 2.6 million and 3.2 million would like to gauge their personal strengths and weaknesses—their knowledge, skills, abilities, and potential for a more productive life. At least 2 million would like to obtain information about educational opportunities in their region. Roughly a million would like to obtain educational, career, or personal counseling. Almost as many would like to have (1) their non-college learning experiences evaluated for college credit; and (2) all their educational work combined into a single centralized record (as in a "credit bank").

These potential learners represent a far more diverse population than those presently able to continue their education.

For example, among those surveyed, only 3 percent aged 60 and over are now engaged in continued education, but six times as many would like to participate. Nearly nine times as many high school dropouts want to participate as the 4 percent who now do so. Fully ten times as many laborers working at unskilled jobs seek further education as now obtain it. And 65 percent of the Mexican-Americans surveyed are potential students, compared to only 15 percent currently enrolled. In brief, among Californians interested in further education but not presently enrolled, a disproportionate number are either elderly, poorly educated, unskilled, poor, or minorities.

Growth of Interest

This widespread interest in continued learning is likely to grow throughout the foreseeable future. Four major reasons will stimulate it:
1. Economic and social changes impel adults to update their knowledge and skills. To keep abreast of the times, people increasingly turn to education.

2. Education itself is a stimulus for more education, as both California data and national studies indicate. California's young adults are already well educated. As a result, they are more likely to want further educational opportunities eventually than have been sought by their predecessors.

3. Increasingly, continuing personal growth is being seen as the key to a satisfying life. There appears to be a rising expectation among the population in general about the overall quality of life—personal, cultural, and occupational: a feeling that life ought to be better and more meaningful and that the ability to improve one's life may hinge on opportunities for personal development and growth. For example, nationally over the past decade the proportion of adults studying avocational or non-occupational subjects has grown markedly in comparison to those studying vocational topics (Hefferlin, Peterson, and Roelfs, 1975, p 24), and this trend seems likely to continue.

4. Finally, time available for continued education is likely to increase. Shorter and more flexible workweeks, including the spread of four-day and "flexi-time" schedules, will make for longer periods of leisure time and for more options with which to use this time creatively. Studies indicate that during the 1960s, workers gained an average of 49 hours of free time annually as a result of reductions in the workweek and increases in vacation and holiday time; forecasts indicate further gains are likely in the future (Gray and Helmer, 1974). Moreover, trends exist both for earlier retirement from the work force and also for flexible retirement plans, by which employees may cease full-time work at an earlier or later point or gradually retire by working shorter hours for some years prior to termination. Some experts forecast that by the year 2000, 20 percent of California workers may be voluntarily working less than full time throughout their careers. With the addition of the likelihood that per capita wealth will continue to increase, although probably at a declining rate in the short run, these trends point to more opportunity for adults to engage in study.
The transformations taking place in California as well as in the rest of the country can be epitomized by those occurring in Santa Cruz, as observed by one of its older residents:

I arrived straight from Manhattan into Santa Cruz five or six years ago. It was so quiet on my street I could hear the earthworms in the garden. I could listen to the grass grow. It was like Genesis.

At first there was nothing. Then gradually things have begun to change. Santa Cruz is a community undergoing subtle, but important changes in its intellectual, cultural, lifestyle, and organizational characteristics. It is discovering music beyond Lawrence Welk, drama beyond Cinerama, art beyond the Last Supper, crafts beyond whittling, travel beyond the Santa Cruz mountains, conversation beyond who is sleeping with whom and who shouldn't, and enjoyment beyond the Boardwalk.

Postsecondary opportunities not only contribute to these changes; they are themselves affected by them, as more and more adults expand their learning interests. And even though some people will never follow up their interests by actually enrolling,* others not now interested may become interested as opportunities become known to them.

Societal Requirements

The scope of postsecondary education for California in the future depends not only on the educational demands and interests of individuals but on the needs

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*The expression of intentions, as in polls, of course, is often not consistent with eventual behavior. That is, compared to the numbers who report they would like to pursue learning, many fewer will actually enroll in any given period of time. The discrepancy between such expressed interest and actual behavior, however, in large part depends on convenient access to needed programs.
of California's economy and culture for skilled workers and well-educated citizens. As fast as any other state and perhaps as fast as any other country (with West Germany the closest competitor), California is moving into an advanced stage of post-industrialism. Little prospect exists for reversing the momentum toward more and more knowledge-based professional, technical, and managerial jobs in the service sector, increased occupational obsolescence as the result of automation and other technological changes, and periodic retraining as a necessity rather than a luxury.

This shift in the economy from a preponderance of industrial work to one of white-collar and service employment is more apparent in California than in the rest of the country:

- By 1950, California's proportion of white-collar workers surpassed its blue-collar counterpart--six years before the nation as a whole (LaPorte and Abrams, 1974).

- In 1970, 69 percent of all employees in California were working in the service sector, compared with only 61 percent nationally. Only 27 percent were employed in manufacturing, and only 4 percent were engaged in agriculture and mining.

- Even in its manufacturing sector, California is unique among the states. With its concentration of electronic and aerospace industries, 17 percent of its manufacturing employees are professionals, such as engineers, accountants, scientists, and technicians, compared to 10 percent nationally (Bradshaw, 1975).

- In the service sector, California also has a disproportionate concentration of professional expertise, with its leadership in communications, research and development, education, and the arts. Not only do economists such as Howard Bowen at Claremont foresee continued growth, both relative and absolute, in the service sector of the economy but they predict that within the service sector professional services such as health, government, education, engineering, and the law will continue to grow faster than retail, repair, and personal services--possibly reaching 40 percent of
the total work force by the year 2000 (Bowen, 1974, p. 9).*

These facts of technological and occupational change have important consequences for postsecondary education. With the expansion of knowledge, professional specialists must continually update their professional skills. Not only is technological obsolescence increasingly confronting many unskilled workers but highly specialized skilled workers as well. With unemployment higher than at any time since the 1930s, some planners are advocating that "the only true form of unemployment insurance in a technological industrial society is a program of education and training which provides people with the skills needed in that society" (Striner, 1972, p. 57).

In the face of these changes, training acquired early in life and prior to entering the work force can no longer serve Californians throughout their careers. Many employees will need periodic upgrading of their skills, and many professionals will be required to update their competence through mandatory relicensure based on demonstrated performance. Many of the women who are forsaking traditional roles to enter the labor force need new training or sharpening of unused skills,

*Bowen, former Chancellor of the Claremont University Center and currently professor of economics and education there, emphasizes the importance of these professional services for society in these words: "The services that I have classified as professional—health, government, religion, education, the arts—are peculiarly related to human welfare and to the development of human beings. They touch profoundly the lives of individuals and determine the range of personal opportunity. They are the basis of our civilization. .....From the short-run financial point of view, it is plausible to say that we cannot afford to develop the service economy. But from the point of view of allocating our labor force for the sound advancement of our society we can and almost surely will devote increasing shares of our resources to the professional services. This is really what the great public debates on the financing of health services, education, cultural activities, and local government are all about" (1974, pp. 10, 11).
and many currently employed women armed with a new sense of their own worth will be seeking further training for job advancement.

Beyond these needs for expanded occupational training, California faces problems in its social and political life—from struggles over economic and ethnic justice to questions of environmental protection, political apathy, and personal alienation—that will require increased public understanding and "civic literacy" for their resolution. In the future, besides communications competence and vocational competence for a career, California's adults will most likely need greater interpersonal competence (the ability to function effectively in groups), technological competence (an understanding of how things work), political competence (civic understanding and a disposition to participate in self-government at local and other levels), and perhaps most important, competence in learning how to learn (skills in finding, using, and creating learning resources).

In sum, not only will the interests of Californians in continued education expand in the future; the state's requirements as a society and economy for further educational opportunities will increase as well.

According to projections from the Department of Finance, California's adult population is expected to increase from 14.8 million this year to 20.5 million by the year 2000. Simply to assure adults at the turn of the century the same opportunities for adult learning that now exist within the state, California will have to plan on postsecondary enrollments by then of over 5 million, compared to the less than 4 million enrolled this past year. But it would be unrealistic, we think, for policy makers to plan merely for this absolute expansion; the growth in educational aspirations as well as the economic and cultural changes pointed to will mean that an increased proportion beyond the present one-fourth should enroll at least on a part-time basis.

Nationally over the next 25 years, according to the Carnegie Commission on Higher Education, full-time equivalent enrollments are likely to increase 56 percent; and Howard Bowen has calculated that if inequities that now limit enrollment in many states were removed, national full-time equivalent enrollments would at least
Double by the turn of the century (1974, pp. 6, 16). Certainly in California, full-time and part-time enrollments may well double to nearly 8 million, so that rather than a fourth of California's adults participating in postsecondary education, at least 37 percent would be enrolled at least part-time. Altogether, including other adults who might use non-instructional services such as counseling, testing, and career planning, fully 50 percent of the state's adults should be expected to be in some way involved in postsecondary education each year by the turn of the century. Not only more learning opportunities, but different kinds of opportunities beyond conventional classroom courses should be available to them.
CHAPTER THREE

RESOURCES FOR ADULT LEARNING

California has extensive educational resources from which to build new services for lifelong learning:

- Academic institutions, designed primarily for the young and adolescents, can be adapted to adult needs.
- Informal learning opportunities exist through libraries, community agencies, recreation departments, clubs, professional associations, and other organizations.
- Uncounted thousands of employees participate in on-the-job training.

Decisions about new ways to facilitate adult learning need to be based on a recognition of the potential of all these existing resources.

Altogether, probably fewer Californians are enrolled in school and college programs than in those of other non-academic organizations or agencies, but schools and colleges constitute the state's core education resources for sustained liberal and occupational education. Between 20 and 25 percent of the state's adults were enrolled in school or college this past year—for an estimated total of nearly 4 million participants, as the table on the next page shows. This chapter describes each of the six types of institutions listed in the table, in order of the size of their enrollments, and then reviews four other types of learning resource: the state's public libraries; inservice education in business, industry, and government; voluntary organizations and alternative schools; and the mass media.

Adult Schools and Programs

Although most people think of the public schools largely in terms of elementary and secondary education, they offer courses to more adults in California than any other type of educational institution. Last year, over
TABLE ONE

Estimated Number of Participants in California Postsecondary Institutions, 1974-75

NOTE: These estimates are based on a variety of cumulative annual enrollment figures and one-time enrollment figures from recent years. They suffer from differences in both definition and data collection methods. Participants are estimated on "head count" rather than on full-time equivalent (FTE) enrollments. Until it is possible to obtain comparable data from each segment, estimates such as these should be used as only a rough indication of the scope of participation across the several segments.

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Number</th>
<th>Estimated Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Schools and Programs of Public School Districts</td>
<td>302</td>
<td>1,432,000¹</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>98</td>
<td>1,136,000²</td>
</tr>
<tr>
<td>California State Universities and Colleges</td>
<td>19</td>
<td>413,500³</td>
</tr>
<tr>
<td>University of California</td>
<td>9</td>
<td>399,000⁴</td>
</tr>
<tr>
<td>Independent Colleges and Universities</td>
<td>157</td>
<td>206,000⁵</td>
</tr>
<tr>
<td>Private Vocational Schools</td>
<td>750</td>
<td>200,000⁶</td>
</tr>
</tbody>
</table>

¹. Estimate from Department of Finance, based on APA projections for 1975 from 1974 data.

². Data from the Chancellor's Office of the California Community Colleges, covering credit and non-credit courses for Fall 1974 but excluding non-graded classes funded entirely by local revenues, estimated in 1974 at 660,000 (Salter, 1975, pp. 51, 47).

³. Data from the Chancellor's Office of the California State University and Colleges, including 24,549 matriculated students in the fall of 1974 plus extension enrollment of nearly 6,000 during 1974-75 and 1974 summer session enrollment of over 21,100 students who had not attended the State University and Colleges during the previous year.

⁴. Data from the University of California, including 124,114 matriculated students enrolled in Fall 1974 plus estimated 271,114 in University Extension, based on FTE calculations and number of course registrations (Salter, 1975, pp. 88, 109). Total does not include participants in Cooperative Extension programs.

⁵. Includes 142,114 students enrolled in the regular programs of the 44 colleges and universities accredited by the Western Association of Schools and Colleges (Salter, 1975, p. 121); 83,004 enrolled in extension courses (data from Association of Related California Colleges and Universities); and an estimated 4,757 enrolled in 44 non-approved institutions (Salter, 1975, p. 122).

⁶. Estimated used by the California Junior College in Vocational Education and Training Project. Participants are estimated to be the total students for all included.
a third of the state's enrollments in education beyond the high school were in public school adult courses. In 1973-74, out of the state's 360 high school and unified public school districts, 302 offered adult programs and received $10,787,671 in state apportionment support for them (not including local tax support or federal categorical aid).

With courses ranging from traditional academic subjects and basic literacy training to such specialties as auto radiator repair, fingerprint classification, machine tool rebuilding, pest control, police radio dispatching, and school bus driving, enrollments were greatest during 1973-74 in four fields: industrial education, English as a foreign language, homemaking, and office education.*

*Enrollments took this form during 1973-74 (Salner, 1975, Figure 2, Appendix 1):

<table>
<thead>
<tr>
<th>Program</th>
<th>Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Education (including trade, technical, and service careers)</td>
<td>170,385</td>
</tr>
<tr>
<td>English as a Second Language</td>
<td>154,052</td>
</tr>
<tr>
<td>Homemaking</td>
<td>136,504</td>
</tr>
<tr>
<td>Office Education</td>
<td>132,367</td>
</tr>
<tr>
<td>Crafts and Decorative Arts</td>
<td>106,922</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>97,134</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>92,846</td>
</tr>
<tr>
<td>English and Speech Arts</td>
<td>86,735</td>
</tr>
<tr>
<td>Art</td>
<td>81,283</td>
</tr>
<tr>
<td>Parent Education</td>
<td>76,948</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>66,690</td>
</tr>
<tr>
<td>Forum and Lecture Attendances</td>
<td>62,425</td>
</tr>
<tr>
<td>Safety Education</td>
<td>61,149</td>
</tr>
<tr>
<td>Driver Education, Driver Training</td>
<td>49,445</td>
</tr>
<tr>
<td>Music</td>
<td>48,279</td>
</tr>
<tr>
<td>Mathematics</td>
<td>35,872</td>
</tr>
<tr>
<td>Civic Education and Leadership Training</td>
<td>30,176</td>
</tr>
<tr>
<td>Elementary School Subjects</td>
<td>30,130</td>
</tr>
<tr>
<td>Accounting and Business Data Processing</td>
<td>29,836</td>
</tr>
<tr>
<td>Marketing or Distributive Education</td>
<td>23,274</td>
</tr>
<tr>
<td>Gerontology (Classes for Older Adults)</td>
<td>22,082</td>
</tr>
<tr>
<td>Classes for Handicapped Adults</td>
<td>21,946</td>
</tr>
<tr>
<td>Natural and Physical Sciences</td>
<td>20,194</td>
</tr>
<tr>
<td>Agriculture</td>
<td>18,469</td>
</tr>
<tr>
<td>Americanization (Citizenship)</td>
<td>11,548</td>
</tr>
</tbody>
</table>
Within adult vocational education, since 1965 the fastest growing programs have been the state's Regional Occupation Programs and Centers, which are open both to adults and also high school and community college students and which are administered both by school districts and other agencies. But the growth of adult programs stems in good part from their willingness to utilize off-campus sites for instruction. Thus the Los Angeles Unified School District uses 650 locations--churches, businesses, hospitals, factories, state agencies and the like--for instruction besides its 29 adult schools, five Regional Occupation Centers, and four skills centers funded through the Comprehensive Employment Training Act (CETA).

Even though California's community colleges are open to adults who have not completed high school, obviously many adults prefer public school programs. Some may fear the possibility of failing at "college-level" work. Others simply are uninterested in working toward a college degree. Some may welcome the variety of courses and the type of instruction. For whatever reason, public school programs for adults play an extensive role in California's postsecondary system.

Community Colleges

California's 103 community colleges--two of which opened this summer--account for nearly 30 percent of the state's postsecondary enrollments and for several times more state support than the adult schools. In 1973-74, their current expense budgets from all sources came to $367,000,000; 45 percent of which stemmed from state revenues.

The popularity of these community colleges was illustrated in the fall of 1975 when the Department of Finance found through its survey of adult Californians that 30 percent of them had taken at least one course at a community college since leaving high school. In contrast, 12 percent had taken high school courses; 12 percent had taken private specialty school courses; 9 percent had enrolled at an independent college or university; 8 percent had taken a regular course at the
California State University and Colleges, and 5 percent had enrolled in a regular program of the University of California (Gould, forthcoming).

As of 1972, all but nine of the community colleges were offering courses at off-campus sites, including 528 public schools, 133 recreational facilities, 125 commercial establishments, 115 religious institutions, 108 medical facilities, 79 public agencies, 40 military bases, 34 correctional institutions, 25 fire departments, 24 police departments, and 16 other institutions of higher education. That same year, 14 of them offered 26 different degree and certificate programs in which at least 50 percent of the work was available at off-campus locations and in which some 13,700 students were enrolled.*

In comparison with community colleges elsewhere in the country, however, few community colleges have created separate units for non-traditional studies. Among the exceptions, both in the planning stages, are the Los Angeles Community College District's "New Dimension," and the College for Non-traditional Study of the Peralta Community College District in Oakland.

The potential of the community colleges for further adult learning is great, despite the current cap on increased support, particularly if more community college districts experiment with separate units for flexible

*American River College offered programs at Sacramento and Placerville, as did Cerritos College at Downey and La Habra, and Chabot College at Livermore, Pleasanton, and San Leandro; City College of San Francisco at its downtown center and the San Francisco International Airport; College of the Redwoods at Crescent City, Ft. Bragg, Garberville, McKinleyville, and its Klamath/Trinity and Hoopa/Willow Creek centers; Compton Community College in Compton; Cuesta College in Atascadero and San Luis Obispo; Diablo Valley College in Antioch, Brentwood, Pittsburg, and San Ramon; East Los Angeles Community College in the Los Angeles City Hospital, Civic Center, Sheriff's Academy, and Fire Training Centers; Santa Rosa College in Lower Lake, Ft. Mifflin, Sonoma, and Ukiah; Sierra College in Grass Valley; Victor Valley College in Apple Valley; George Air Force Base, and Victorville; and West Hills College at Dos Palos, Firebaugh, Riverside, and Lemoore Naval Air Station.
study. With over half of their support coming from local taxes, these colleges can take independent initiative in responding to local learning needs. In contrast with the California State University and Colleges and the University of California, however, they do not form a state system of institutions; as a consequence, coordinated statewide action by all 100 of them on adult learning or any other need is difficult.

California State University and Colleges

The nineteen campuses of the California State University and Colleges account for 10 percent of post-secondary enrollments in the state, enrolling approximately twice as many regular degree-credit students as the University of California, while UC reaches twice as many extension students. The 1973-74 operating budget for the system was $613,990,000.

Among them, the 19 campuses offer bachelor's and master's degree programs in all academic and professional subjects, plus five joint doctoral programs between individual campuses and those of the University of California. At least 300 of the programs--primarily in education, business, public administration, and the health sciences--may be completed partially if not entirely at night.

At one time, the state colleges operated off-campus centers at El Centro, Hamilton Air Force Base, and the San Francisco Presidio, and planned a similar facility at Vandenburg Air Force Base; but a 1966 recommendation of the California Coordinating Council for Higher Education and the Academic Senate of the California State University and Colleges led to their discontinuance. Now only San Diego State University operates a full-fledged off-campus program elsewhere: its Imperial Valley Campus, which conducts weekday and weekend classes in Calexico.

For decades, individual campuses have offered extensive continuing education courses supported by student fees--the largest number of them for in-service teacher training. These extension programs consist
primarily of discrete single courses, in contrast to sequential curricula; but since 1971 through its Commission on External Degree Programs, CSUC has organized 28 full-fledged off-campus External Degree programs which were enrolling 2,053 students at 42 locations by the fall of 1974. Six more are opening this fall; and an additional 18 are being planned.

Most of these External Degree programs are characterized by curricula comparable to those of regular on-campus programs; they are designed and supervised by regular campus committees, and staffed largely by regular faculty. Admission is limited to upper-division and graduate level students who are mature enough to succeed at external work and who are unable to enroll on a resident basis in regular campus programs. But like extension courses, these External Degree programs are underwritten by student fees, rather than state funds. Average semester charges to their students thus run about $35, compared to $79 for comparable on-campus programs. Because some 25 percent of prospective External Degree students cannot afford to pay this additional cost, the legislature has authorized $120,000 for fee waivers to low-income External Degree students.

In 1973, to offer External Degree programs anywhere in the state, CSUC created its Consortium—the "1000 Mile Campus"—as a degree-granting cooperative endeavor of the 19 campuses. Overseen by an advisory committee of the Statewide Academic Senate and by faculty committees for each academic program, the Consortium offered seven programs on a state-wide basis last year and will conduct nine in 1975-76. One program organized at Dominguez Hills illustrates their character: Salner, 1975, pp. 17-18:

The Dominguez Hills program in Humanities, offered in collaboration with the Consortium, is designed specifically for students who are scattered over a wide geographical area or who are infrequent. The program is not bound by the traditional classroom orientation. Instead, it utilizes alternative educational delivery systems which include television, radio, tape cassettes, films, prepared study guides, a regular newsletter, small group regional meetings, and individual faculty-student contacts and advisement. In this way, students from anywhere in the state can be reached.
While External Degree programs and the operating costs of Consortium programs have been supported largely through student fees, the extensive developmental costs of these coordinated Consortium programs have required special state support for their initiation. For 1975-76, however, the governor's budget deleted the $185,860 requested for these developmental costs, observing that after two years, "state support is no longer required to cope with start-up problems and curriculum development" (Brown, 1975, p. 8). As a result, to assure continued growth of the Consortium the Trustees of the State University and Colleges are seeking these needed developmental funds from elsewhere in the system budget.

In 1974, CSUC's Trustees approved offering state supported instruction in addition to these student-supported extension courses and External Degree and Consortium programs on a limited basis in off-campus locations. Now seven of the campuses offer 40 courses (but not complete degree programs) in such facilities as community colleges, state agencies, private firms, and the new Ventura Learning Center, created and operated jointly with the University of California.

Among plans under consideration by the system are (1) the awarding of recognition for prior learning of students enrolled in External Degree programs through the use of oral examinations and reviews of portfolio work, (2) coordinating for the several segments of California higher education the evaluation of instruction in non-collegiate settings such as business and industry, just as the Regents of the State of New York are doing in that state, and (3) the offering of External Degree programs over 25 cable television outlets throughout the state using one campus to videotape each course plus advisee from other campuses to work with students who enroll in the courses.

The California State University and Colleges gives evidence of potential for meeting a good many of the off-campus and upper-division external degree needs of California adults. Over the past four years it has demonstrated its interest in these services; this year will test its commitment to them in the face of gubernatorial cutbacks for start-up costs of further Consortium programs. With interest on the campuses, as well as central office leadership within its Division of
Continuing Education, and lacking some of the reticence of the University of California, CSUC can conceivably play a major role in expanding postsecondary alternatives in the state—particularly if it works to diminish the differences in student fees between its External Degree and on-campus programs.

University of California

In 1974, of the 124,000 students enrolled in the regular degree-credit programs of the University of California, about one percent (1,579) were participating in the University's experimental "Extended University" program for part-time students. But the University's two other special programs for adults and part-time students—Cooperative Extension and University Extension—served many more thousands of Californians than these regular students.

Cooperative Extension, operated in conjunction with the counties, and funded jointly by the United States Department of Agriculture, the state, and county governments, serves an estimated 20,000 Californians every day with a staff of 1,300 employees and 56 county offices (Salner, 1975, p. 98). Its staff members offer consultation, run meetings, conduct short courses and workshops, sponsor 4-H programs, and prepare publications, radio broadcasts, and television programs on subjects ranging from agriculture and homemaking to consumer services, community development, rural-urban planning, and environmental protection.

Throughout its separate division, the University offered 8,229 regularly scheduled extension courses and 3,439 workshops and conferences in 1973-74 for over 375,000 registrations.* Most of its offerings are

*1973-74 registrations were as follows (Salner, 1975, Figure 4.)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>66,446</td>
</tr>
<tr>
<td>Health Professions</td>
<td>46,119</td>
</tr>
<tr>
<td>Law</td>
<td>45,266</td>
</tr>
<tr>
<td>Business and</td>
<td>44,022</td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>37,662</td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
</tr>
<tr>
<td>Fine and Applied</td>
<td></td>
</tr>
<tr>
<td>Arts</td>
<td>33,241</td>
</tr>
<tr>
<td>Letters</td>
<td>32,552</td>
</tr>
<tr>
<td>Engineering</td>
<td>12,644</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>8,056</td>
</tr>
</tbody>
</table>
conducted at off-campus locations and many of them are at a professional level. Unlike tax supported Extension and regular on-campus programs, University Extension programs have been wholly self-supporting through student fees since 1968-69. These fees, ranging for one unit of credit from $25 at San Diego and Santa Cruz to $37 at Irvine, supported a 1973-74 budget of some $27 million dollars, in comparison to the $19.5 million subsidy from county, state, and federal sources for Cooperative Extension, and a total University current expense budget of $1,384,636,000.

At the same time the California State University and Colleges system began planning its External Degree programs for off-campus students, the University of California launched plans for its experimental Extended University program, designed specifically for part-time students. Until then, the University had given preference in its regular programs to full-time students and required part-time students to adjust to full-time schedules and to pay full-time fees. During 1974-75, 10 Extended University programs were offered by eight of the University's nine campuses--half of them conducted on campus and half off, with the off-campus locations including Escondido, Fresno, Ontario, Sacramento, San Jose, Stockton, and the Ventura Learning Center. The importance of the Extended University as a part-time option was evidenced by the fact that 75 percent of the students in Extended University programs through 1973 indicated that they would have been unable to attend the University except by this means. Extended University fees were uniformly fixed at one-half those charged to full-time resident students (or about $100 per quarter for part-time upper-classmen and $110 for graduate students).

<table>
<thead>
<tr>
<th>Field of Study</th>
<th>Units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Arts</td>
<td>2,154</td>
<td>1,715</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>940</td>
<td>1,925</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1,911</td>
<td>1,631</td>
</tr>
<tr>
<td>Computer &amp; Information Science</td>
<td>5,143</td>
<td>1,621</td>
</tr>
<tr>
<td>Architecture &amp; Planning</td>
<td>980</td>
<td>1,290</td>
</tr>
<tr>
<td>Environmental Design</td>
<td>1,111</td>
<td>1,111</td>
</tr>
<tr>
<td>Film &amp; Television</td>
<td>1,110</td>
<td>1,110</td>
</tr>
<tr>
<td>Communications</td>
<td>1,111</td>
<td>1,111</td>
</tr>
<tr>
<td>Interdisciplinary Studies</td>
<td>1,715</td>
<td></td>
</tr>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>1,621</td>
<td></td>
</tr>
<tr>
<td>Library Science</td>
<td>541</td>
<td></td>
</tr>
<tr>
<td>Military Sciences</td>
<td>150</td>
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</tr>
<tr>
<td>Theology</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Multi-Categorical</td>
<td>5,452</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>5,452</td>
<td>1,715</td>
</tr>
</tbody>
</table>
At the same time the Governor eliminated from the budget further funds for CSUC's Consortium, he deleted the $1,354,000 request of the University of California to fund the Extended University during 1975-76. "Continued separate state funding is no longer warranted," according to the Governor, since "the University can operate these programs within existing resources" (Brown, 1975, p. 7). As a result, the future of part-time degree programs within the University is clouded.

In terms of national trends, the Extended University is not original. But for the University of California, it has been a much-needed start in opening University resources to previously neglected students. Without further efforts in the direction it has pointed, the University will continue to neglect the degree needs of adults and serve their non-degree needs merely through Cooperative and University Extension.

Independent Colleges and Universities

Some 206,000 students may be enrolled in the 157 independent schools, colleges, and universities in the state--not including the dozen or so out-of-state institutions that operate in California. Nearly all of them are enrolled in the 83 colleges and universities accredited by the Western Association of Schools and Colleges--the regional accrediting agency which serves California.

Despite their small proportion of total enrollments, these independent institutions award some 20 percent of the bachelor's degrees granted in the state, 39 percent of the master's, 49 percent of the doctorates, and 63 percent of the state's professional degrees. And among all six types of institutions, they have been in the lead in offering external degree programs. Golden Gate University initiated external certificate programs in real estate and insurance in 1950; and as of 1972, nine other independent institutions had joined it in offering a total of 1,119 courses on 77 sites (42 of them military bases) for some 12,000 students.*

*In order of the number of their off-campus locations that year, they were the University of Southern California with 19; Golden Gate, 18; Chapman College, 17;
In addition, several of these institutions operate extensive non-degree extension programs—among them, LaVerne College, with some 16,000 continuing education students in California, and Pepperdine University with 21,000.

Not only are these institutions more active in external degree programs than any other, they are more advanced in developing individualized programs of study to meet the needs of on-campus students. Individually-tailored majors, flexible schedules, learning contracts, and credit for prior experience are all being employed among them.* As the number of traditional "college youth" declines during the 1980's, undoubtedly these institutions will actively seek more older students. The major barrier to their serving an expanded clientele is their high tuition.

Private Specialty Schools

About 400,000 students, including 16 and 17 year olds, may be enrolled in California's private specialty schools (often called "proprietary" schools), but data not only on their enrollments but also on the current number of these institutions are difficult to obtain. Some 1,788 such schools were in existence in 1972, according to the California Advisory Council on Vocational Education and Technical Training (Salner, 1975, p. 28).

LaVerne College, 8; Azusa Pacific College, 4; Mount Saint Mary's College, 4; California Lutheran College, 3; and College of Notre Dame and Immaculate Heart College, each with one external site. Since then, Lone Mountain College, Loyola Marymount, the University of the Pacific, and the University of Redlands have also opened external programs (Salner, 1975, pp. 173-175).

*For examples of many of these innovations, see page 116 of Salner (1975).
These schools are gradually being included in overall postsecondary planning. Under the Comprehensive Employment Training Act (CETA) of 1973, state and federal funds can be used to pay for occupational training in them, and under the Higher Education Amendments Act of 1972, federal student assistance funds are available for attendance at accredited proprietary schools. State aid to students in these schools has also been available through the Occupational Education Training Grants program of the California State Scholarship and Loan Commission.

The particular contribution of such schools to adult learning in California is their curricular flexibility, stemming both from freedom from external bureaucratic regulation and lean administration. "Their survival depends on the extent to which they are attuned to both the job market and the student market" (Salner, 1975, p. 12). As a result, they can enter and leave a field more rapidly than any other educational institution.

Public Libraries

Turning to California's learning resources beyond educational institutions, the state's 3,563 public libraries and library outlets are perhaps California's primary resource for independent learning. According to the State Library, only two cities in the state--Emeryville and Hillsborough--lack one. All other communities are served at least by branches or bookmobiles. In cities and towns, central libraries and branches offer open access to knowledge, with hours ranging from a high of 84 per week in Monterey, 77 in Hayward, and 76 in Burlingame down to 19.5 in Calistoga and 12 in San Juan Bautista. In rural counties, bookmobiles provide the bulk of total book circulation: as of 1973, they accounted for 75 percent of Mono County's circulation, 47 percent of Alpine County's, and 29 percent of Nevada County's (California State Library, 1974).

To a greater extent than other postsecondary institutions or agencies, libraries are constrained from expanding their services by local property tax ceilings. Unlike most other community agencies, only 11 percent of their operating budgets (totalling $124 million in 1974) come from state sources and 24 percent from the federal government. The other 65 percent come from local taxes.
Without change in property tax ceilings, they will need supplemental state support for added functions.

One particular weakness of libraries in many California communities is their lack of Spanish language materials. Recognizing this deficiency, the Tulare County libraries, for example, are now devoting 50 percent of their book budget to these materials. A second shortcoming is their lack of service as community information and referral agencies, assisting people to locate needed educational, welfare, and civic services. Only four of the state's 185 public library systems are developing "I&R" facilities, having received outside support for this purpose. Yet public libraries have substantial potential to become adult learning centers and I&R centers to other learning opportunities. Outgrowing their image of tomb-like repositories of books and the bookish, they could play a central role in a comprehensive lifelong learning system.

Employers and Voluntary Agencies

Employers conduct extensive in-service training programs in California, although little systematic data exists about them. According to a 1969 survey by the Training and Development Personnel Division of the Automobile Club of Southern California, the most common programs are for management, executive, and supervisory development and for clerical and technical skills training. An estimated 11,000 Californians are employed by business and government to train employees, and out of California's 1.5 million employees of federal, state, and local government, some 344,000 were engaged in agency-run training programs in 1973. In addition, others were enrolled in college and university programs with tuition assumed by their agency. Thirty-five percent of the federal employees in the state were involved in some form of government sponsored training that year. (Salmer, 1975, pp. 134-142).

Today one out of every six members of the armed forces is involved in education either as a student or instructor. Eleven percent of the specialized skill training offered by the services throughout the nation

48
is offered in California, as is 20 percent of armed service professional development education.

Obviously, in-service training is an essential part of adult learning. One example of cooperation between employers and educational institutions is the Government Education Center of Los Angeles, a new agency supported by contributions from local colleges, universities, and proprietary schools and from government agencies in the Los Angeles basin. The Center offers no training itself, but instead acts as a broker between the agencies and educational institutions in creating, expanding, and extending educational opportunities for government employees.

An encountered number of civic organizations, clubs, churches, and professional groups—from Red Cross chapters and YMCA-YWCA's to Great Books Councils, historical societies, and senior citizen associations—offer instruction to Californians.

In addition, increasing numbers of informal educational organizations either offer instruction or bring individual tutors and teachers together with interested students. Every major California city now has at least one "free university," "learning exchange," or "open education" center, with courses from self-awareness and personal development to home and auto repair and arts and crafts.

Together with libraries and employers, these community groups offer learning opportunities to Californians that need not or are best not offered in academic institutions. They perform an invaluable function of adult education because of their very nonacademic nature, their local origins, and their unfettered flexibility.

California should not only acknowledge their role in its educational planning but also assist its citizens to know that many of their educational needs can be met through such organizations. Summarizing their utility as post-secondary alternatives for the state, Marcia Salner says (1975, p. 117):

> Although these kinds of programs vary greatly in kind and quality, it is clear, even on the
basis of very limited systematic information, that motivated adult learners have an almost unlimited array of resources to utilize for their own personal and professional advancement. The challenge for postsecondary adult educators appears to be the development of means for recognizing, legitimizing, and recording these experiences and integrating them into coherent academic/occupational/educational programs.

Electronic Media

Finally, besides institutions and agencies, radio and television offer learning opportunities to Californians. Among the state's 60 television stations, 12 are noncommercial in nature, with half sponsored by school or community college districts and universities and the other half operated by non-profit corporations. And among radio stations, 56 are operated non-commercially, 47 of them by school districts and colleges and universities.

According to the Joint Committee on Telecommunications of the Legislature, nearly 19 million of the state's 21 million residents can now be reached by public television. The map on the opposite page demonstrates this coverage, either by direct broadcast, translator station, or cable outlet (Joint Committee, 1974). Between June 1973 and June 1974, these public television stations broadcast some 72 postsecondary courses. Over 30,000 students were enrolled for credit in 43 of them, and another 300,000 students may have followed the courses without enrolling for credit in them (Clark and Rubin, 1975, pp. 18, 21). More than half of all such courses have been produced within the state by these stations, working in cooperation with California's public and private colleges and universities and their regional instructional television consortia.

As the Joint Committee on Telecommunications contends, these public television stations represent the most immediately viable delivery system for statewide educational programming—a valuable system that is yet underutilized and underprotected. For two reasons,
however, the system should not be expected to meet much of the need for further adult learning in the state:

- First, adult learners seek face-to-face contact with instructors and fellow students in contrast to impersonal mediated instruction. For example, according to the Postsecondary Alternatives survey, only 7 percent of California's potential adult learners would prefer to study at home either through television or correspondence, in comparison to other ways of learning, although 18 percent would find televised instruction appropriate for their needs (Hefferlin, Peterson, and Roefts, 1975, pp. 44, 48).

- Second and more important, the educational interests of Californians are so diversified and specialized that any form of mass instruction is likely to serve only a small proportion of the total. While public broadcasts are a superlatively economical way to teach millions of learners the same information, such as health and safety, they are inefficient for reaching small numbers of learners with specialized interests such as optics, radiology, and respiration therapy.

More useful for specialized instruction than broadcasts is point-to-point microwave television, or "Instructional Television Fixed Services" (ITFS). Ten licensees, seven of them school districts or dioceses, now beam television programs from one location directly to other receivers. The Fresno County Schools, for example, use four transmitters to reach 167 schools throughout the county, and the Roman Catholic Diocese of Los Angeles reaches 92 schools with ITFS. The other three licensees are universities: Stanford and the University of Southern California, which both reach at least ten industrial firms with professional instruction, and the University of California, which maintains multiple links between campuses and off-campus sites (Clark and Rubin, 1975).

The potential of ITFS for meeting adult learning needs probably equals that of broadcast television and should be taken into account in state planning for new learning systems and further microwave installations.
Califor has extensive educational resources that with retention and expansion can meet most of the learning needs of its adult citizens. Already between one out of every four and one of every five Californians aged 18 or older is enrolled either full- or part-time in school or college programs, and an even larger proportion is participating in informal non-academic and job-related instruction.

The diversity of these resources is illustrated by the fact that Gayle Keefer in Eureka is learning to read faster and reviewing her earlier knowledge of English and mathematics at the Eureka Adult School. In Ventura, Ronald Lopez has learned about the Ventura Learning Center and is enrolling for psychology and counseling courses. And in Madera, Jennifer Haffelback has been commuting to Stockton to participate in the bachelor of science in nursing External Degree program conducted there by California State University, Sacramento.

The challenge to the state's colleges and universities and to state policymakers is to make these resources available to some Californians who want them. At public school and community college levels, learning opportunities are extensive and well dispersed throughout the state, but support is still needed for further community development programs and those programs aimed at high cost, high risk populations among the educationally, socially, and vocationally disadvantaged. Beyond the associate degree level, opportunities are considerably narrower. Neither the California State University and Colleges nor the University of California yet offer sufficient low cost part-time programs for needy students, and the numerous programs of the independent colleges and universities are restrictive because of their high fees.

Thus, while the state can build on these resources in developing additional educational opportunities for all its adult citizens, it must find ways of redirecting these resources toward them to the older as well as the young, and the poor as well as the well-to-do.
CHAPTER FOUR

UNMET NEEDS: THE GAP BETWEEN NEEDS AND RESOURCES

Comparing California's need for postsecondary alternatives with its existing resources leads to several conclusions:

- First, despite its extensive resources, several urgent unmet needs exist.

- Second, the state ought not to focus on only one program to meet these needs. No single effort by itself will be sufficient—neither relying on television to cover the state with courses, nor creating new external degree programs, nor improving coordination among existing institutions. A range of reforms and new services is needed.

- But third, at the other extreme, California clearly should not expand its support to adult learning across the board. At some levels and in some areas it already conducts extensive programs—for example through its adult schools, community colleges, and Cooperative Extension services.

- Fourth, the Legislature was correct in its assumption when authorizing this study that one of the most important needs stems from the limited number of external degree opportunities within the state. This limitation should be overcome. But these limited off-campus opportunities are only one of a number of deficiencies requiring attention.

- Fifth, six other inadequately met needs besides that of external degrees deserve serious consideration if California's adults are to have adequate learning in the 1980's.

These are the major unmet needs identified during the course of the study:

1. Help in locating educational opportunities;
2. Individual assessment, counseling, and career planning;
3. 
4. 
5. 
6. 

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5. Expanded external upper-division and graduate programs;
6. Individualized degree-oriented learning opportunities;
7. Certification of academic and occupational competence with or without formal instruction.

The first three of these unmet needs are the most immediate; they limit the opportunities of the greatest number of Californians. All seven, however, warrant decisive state action.

Seven Unmet Needs

The first two of these needs center on information and assistance to people about appropriate educational opportunities for them. The next four focus on access to these learning opportunities. The last involves access to credentialing opportunities without the requirement of enrollment in formal training programs.

One: Help in Locating Educational Opportunities

Of all the needs for expanded postsecondary opportunities in California, the most critical is simply information about existing opportunities. Large numbers of people know that they want to study something, but they have no convenient way or no central location to find out the options available to them. Without available facts about the myriad of opportunities described in Chapter Three, they have no rational basis for deciding which alternative is in their best interest.

During meetings with community groups in the seven cities studied intensively for this project, this problem of information was mentioned more frequently than any other (Peterson et al., 1975). And according to the statewide survey conducted for the Postsecondary Alternatives study, on the order of 2 million California adults want to obtain information about educational opportunities
in their region (Hefferlin, Peterson, and Roelfs, 1975, p. 64). Among all groups surveyed, the greatest expressed need occurs among young people and those of Spanish or Mexican background. A resident of Bakersfield comments:

In the high school system we do not have qualified counselors to do family counseling for minority kids and kids from lower income families, and their parents do not have the expertise or the educational background to properly guide their children to institutions of higher learning. There is a need for counseling centers to be centrally located...so these needs can be met.

Clearly people must know about the services available to them in order to use them. Too often, those most in need most lack the needed information.

Two: Individual Assessment, Counseling, and Career Planning

Many adults at one time or another need aid in thinking through their educational and occupational plans and relating them to their broader life goals. And before choosing among alternatives, many could benefit from assessing their own skills, aptitudes, and proficiencies—their own educational strengths and weaknesses or vocational talents and interests. As many as 2.8 million would like to gauge their "strengths and weaknesses in various subjects or skills", according to the Postsecondary Alternatives survey; and a similar number would like to assess their "personal competencies—potential for personal growth and for living a more productive life."

Most such adults may need only encouragement for greater self-assessment; but others should have access to assessment and appraisal services. While many more can reach their learning and career decisions entirely by themselves, a large number could be helped in their thinking by discussing their plans with a friendly but impartial counselor. And some will need such a person to help them as an advocate or facilitator on their behalf vis-a-vis bureaucratic procedures of institutions or agencies.
Three: Equity for Part-Time Students

Part-time students are discriminated against in a variety of ways: higher than regular fees, restricted financial aid, "insulting" registration and enrollment procedures, limited or inconvenient class schedules, and low priority in admission to specific courses. Age restrictions are imposed on some specific programs and some state financial aids. Professors often are either unprepared or disinclined to work with older students. Currently, fully one-fourth of the state's potential adult learners report that the courses they want to take are not scheduled when they can attend (Hefferlin, Peterson, and Boelks, 1975, p. 60).

The problems confronting part-time students can be epitomized by a comment from one of them (Peterson, et al., 1975, pp. 9, 10):

If I want to take a course, the information I have is that I must pay my $40 two months in advance to begin a class in January. The class doesn't cost $40, but I have to pay $40. Then I have to go through the red tape of establishing that I'm not going to take a full load to get a refund of everything but $12. In addition, I have to go up and stand in line to re-register and get accepted simply to take the class. There's a lot of classes I would like to take, but I just don't want to sacrifice the time to go through all that business. And if I as a teacher see it as red tape, just imagine what it must seem to someone else.

Four: Programs for Groups with Special Needs

Several groups of adults who wish to pursue further learning have particular difficulty in doing so. In terms of their numbers and their needs, here are some examples:

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<thead>
<tr>
<th>Group</th>
<th>Approximate Number</th>
<th>Particular Needs</th>
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<tr>
<td>Older Adults</td>
<td>2.9 million in California</td>
<td>According to the Postsecondary Alternatives survey, some</td>
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<tr>
<td>Group</td>
<td>Approximate Number</td>
<td>Particular Needs</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ethnic Minorities</td>
<td>2 million of</td>
<td>500,000 might participate in higher learning if they had the opportunity to do so, but transportation and financial limitations prevent many of them.</td>
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<tr>
<td></td>
<td>Spanish or Mexican background; 1 million Blacks; smaller numbers of other groups</td>
<td>Some one million Californians of Mexican descent might participate if language, cultural, and job and family responsibilities did not interfere. Among Blacks, 400,000 might do so. A somewhat higher proportion of minorities than whites seek further education; but a smaller proportion are able to obtain it.</td>
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<tr>
<td>High School Dropouts</td>
<td>4 million in 1970, out of 11 million adults over age 25</td>
<td>As many as 35 percent of high school dropouts wish to engage in further learning, according to the Postsecondary Alternatives survey; but only 4 percent are presently participating. Half of the dropouts report costs as a prohibiting factor.</td>
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<tr>
<td>The Poor</td>
<td>1.4 million adults under the poverty level</td>
<td>Up to half of low-income Californians may want to improve their condition by further education, but costs prevent them. So far, Educational Opportunity funds in community colleges and state colleges have been limited to full-time students, thereby limiting participation of the poor.</td>
</tr>
<tr>
<td>Women</td>
<td>7.6 million aged 19 or older</td>
<td>As many as 4.4 million want to continue their education, but only 1.3 million are currently doing so. A smaller proportion enroll than men, and more of them as part-time rather than full-time students. Family and childcare responsibilities are major problems (Barry, 1975).</td>
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</table>
### Table: Group, Approximate Number, Particular Needs

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<thead>
<tr>
<th>Group</th>
<th>Approximate Number</th>
<th>Particular Needs</th>
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<tbody>
<tr>
<td>The Unemployed</td>
<td>983,400 as of July 1975</td>
<td>The most immediate need is for jobs but a long-term need in many cases is for improved job skills. Workers in technologically obsolete jobs require special assistance.</td>
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<tr>
<td>The Handicapped</td>
<td>3.3 million</td>
<td>At least 500,000 could benefit from academic and occupational education, according to the Department of Rehabilitation. Physical and organizational barriers prevent many of them.</td>
</tr>
<tr>
<td>The Institutionalized</td>
<td>Nearly 23,000 in state prisons; 21,000 in county jails</td>
<td>Occupational and basic educational needs predominate, but legislative restrictions limit the ability of community colleges and other institutions to serve prisoners. The National Advisory Committee on Criminal Justice Standards has called for expanded individualized education programs.</td>
</tr>
</tbody>
</table>

To meet the diverse and frequently unique needs of these groups, different types of education will be required as well as additional support services.

### Section: Five: Expanded External Upper-Division and Graduate Degree Programs

While California is well supplied with adult education and community college facilities, many adults among the million or more who would like to study toward the bachelor's or higher degrees lack access to upper-division and graduate programs. Some communities are so distant from four-year institutions that it is virtually impossible for their residents to enroll in such programs. Elsewhere, institutions may be accessible, but lack the programs wanted by residents. And in other places, extension courses and external programs are available.
from institutions but are out of reach to some adults because of their cost. Finally, a number of adults could benefit from educational programs in business, industry, and service agencies, but are restricted to classroom instruction on campus instead.

A resident of Auburn illustrates the problem:

There are a number of people here in the Auburn area who have progressed to their A.A. degree and who have a family, who have to work, and who cannot go back to college to get a four-year degree. It is extremely impractical for them to go at night all the way down to Sacramento State. They are just stymied in their desire to work toward a B.A.

California's four-year institutions, as noted in Chapter Two, have begun to offer these needed external programs. The recent elimination of their state funding, however, is likely to forestall further expansion.

It is important to understand why this need for external degree programs exists primarily at the upper-division and graduate level. The reason, of course, is that the 100 community colleges and over 300 high schools that offer adult programs are geographically dispersed throughout the state and have been generally successful in meeting the educational needs at the lower-division level. The efforts at this level should certainly not cease, but greater attention should be devoted to increasing accessibility at the upper-division and master's level.

Six: Individualized Degree-Oriented Learning Opportunities

Besides the need of many adults for traditional degree programs to be offered off-campus, other Californians seek the opportunity to work toward a degree in a tailor-made or specially-designed program. Older and more mature adults often have wide-ranging inter-disciplinary interests that do not fit neatly into conventional degree programs, whether on or off campus. A good many of them could design their own learning plan around a vocational or lifelong avocational interest, building on what they have already learned, rather than following a prescribed curriculum in any particular department. Today, although the pieces for such individualized pro-
grams exist in hundreds of courses, these mature learners cannot assemble them into a pattern leading to a degree.

This need is perhaps the most neglected of all those for new instructional programs. In his studies for the California State University and Colleges, Frank Siroky of California State College, Sonoma, found that only one-third of California's adults who are interested in external degree programs can be served if these programs are offered through organized classes that require the usual minimum number of students to enroll in order for the course to be offered (1975). The demand for such individualized programs has also been demonstrated in recent years in other states—for example, by Minnesota Metropolitan State College in Minneapolis-St. Paul and New York's Empire State College. In 1974, for example, the Long Island Learning Center of Empire State College had a waiting list of 1,000 applicants.

Seven: Certification of Academic and Occupational Competence without Formal Instruction

Adults obviously develop skills and abilities from experiences outside schools and colleges. For educational and career advancement, many of them require that these competencies be verified in terms of commonly accepted academic terms such as credits or degrees. California should follow the lead of other states and grant recognition for learning in the "real world" which is comparable to that acquired on a college campus.

An electronics technician in Auburn observes in this regard:

I feel I have not been credited with the excellent training I received in the U.S. Navy. Thirty weeks, eight hours a day, five days a week, completed with a 92+ average in complex electronics should be recognized as much as five hours a week for a semester or two in a formal college.

And a student at the College of the Redwoods in Eureka says:

I would like to see people receive credit for years of volunteer work, or years of on-the-job experience. This work should
count for a certain number of college credits even though it was done in the past and not simultaneously with their college work.

Some 1.3 million Californians probably would be interested in using such an academic evaluation and certification service if it were available to them.

With respect to occupational certification, the need is for more open access to the certification structure in the state, so that individuals who, in whatever way, have acquired the necessary skill can be certified to practice their chosen occupations. In other words, completion of a formal training program, as in college, ought not necessarily be the only route to becoming certified or licensed.

On a different level, there is a public need for reform in the entire occupational certification and recertification system in the state, such that consumers, as the recipients of various services, can be better assured that the services received will have been performed competently.

Chapters Five, Six, and Seven discuss means by which these seven gaps between educational needs and existing resources can be overcome. Some can be rectified by making better use of existing institutions—for example, by reallocating resources among and within them and by reforming discriminatory policies—and these changes are outlined in Chapter Five. But others require the creation of new services—either directly aimed at potential learners, or as support services—and these new programs are presented in Chapters Six and Seven. To preface those chapters, attention ought first be paid to various barriers which presently prevent these needs from being met and which call for these changed policies and new services.

**Barriers to Meeting the Needs**

Various constraints, obstacles, and barriers operate in California to prevent these seven adult learning needs from being met. Many of these barriers are shown in the adjacent chart, which is based on a classification-
tion scheme developed by K. Patricia Cross (1974). The location of the barriers—whether among students themselves or within educational institutions, state agencies, or other organizations such as employers or accrediting agencies—forms one axis of the chart, while three different types of barrier form the other: dispositional, such as attitudes and beliefs; situational, such as costs and resources; and organizational, such as structural or legal obstacles. While the location of some of the barriers in the chart may be questioned, and the description of others so brief as to limit full understanding, this matrix helps demonstrate the range and sources of barriers that in varying combinations inhibit resolving the various needs that have been identified. The purpose of identifying these obstacles to new kinds of learning opportunities is, of course, that they suggest foci for recommendations.

The following is an overview of what seem to be the chief barriers, other than lack of funds, to meeting the seven broad needs described above:

Barriers to Meeting the First and Second Needs

With regard to both help in locating educational opportunities and individual assessment, counseling, and career planning, there would in general be relatively few barriers to meeting these "non-instructional" needs other than ignorance of the needs. Programs to meet these needs would not be directly competitive with those of existing institutions. Indeed, they could aid the colleges by stimulating enrollment of new students, who, except for the new services, might not have otherwise applied. New counseling, information, and related services would, of course, be competitive with the existing segments under the condition of limited funds for postsecondary education. If such funds are determined to be limited, any new program would presumably mean reduced allocations for existing programs.

There is evidence from the historical overview in Chapter One of fairly long-standing opposition in key state agencies such as the State Department of Finance and the Office of the Legislative Analyst to state-supported learning programs for adults, which may carry over even to "non-instructional" programs—counseling, educational information, and related services.
# Chart One: Barriers to Expanded Adult Learning Opportunities

<table>
<thead>
<tr>
<th>In Students</th>
<th>In Educational Institutions</th>
<th>In State Government</th>
<th>In Other Agencies</th>
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<tbody>
<tr>
<td><strong>Dispositional</strong> (attitudes, beliefs, interests, etc.)</td>
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<tr>
<td>Lack of confidence in institutions about school or college fees</td>
<td>Faculty and administrators' concerns about: quality of non-traditional programs</td>
<td>Negative attitudes about: state support for older students</td>
<td>Employer doubts about the quality of non-traditional programs and institutions</td>
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<tr>
<td>Fear of competition from old</td>
<td>Faculty and students' support for non-traditional programs</td>
<td>state support for part-time students</td>
<td>Difficulties of nontraditional institutions gaining accreditation and state approval</td>
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<tr>
<td>Lack of time</td>
<td>Efficiency of new media, student-guided learning</td>
<td>state support for</td>
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<tr>
<td>Feeling of being out of place</td>
<td>rewards for participating in external teaching</td>
<td>non-vocational</td>
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<td>Discomfort in external teaching</td>
<td>sustained legislative</td>
<td>learning</td>
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<tr>
<td>Sustained legislative</td>
<td>Full support for</td>
<td>withdrawal</td>
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<td>Commitment to adult learning</td>
<td>programs</td>
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<td>Credit by examination</td>
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<td>Lack of confidence</td>
<td>Faculty and institutions' concerns about:</td>
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<td>about opportunities and</td>
<td>quality of non-traditional programs</td>
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<td>misinformation about</td>
<td>standards of off-campus and non-residential</td>
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<td>opportunities</td>
<td>programs</td>
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<td>Higher fees or tuition</td>
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<tr>
<td>Lack of information about</td>
<td>Absence of support for</td>
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<td>adult interests or needs</td>
<td>adult learning opportunities</td>
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<tr>
<td>Self-support policy restricts</td>
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<td>opportunities for part-time students</td>
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<tr>
<td>Lack of information about</td>
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<td>educational resources</td>
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<td>Distance from educational resources</td>
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<tr>
<td>Transportation problems</td>
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<tr>
<td>Faculty responsibilities</td>
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<td>Course scheduling problems</td>
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<td>Lack of adequate preparation</td>
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<tr>
<td>Part-time fees proportionally higher than full-time fees</td>
<td>AL and ETV funding formulas tied to full-time and non-construction</td>
<td>Numerous laws and</td>
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<tr>
<td>Students require more than the unit instruction and</td>
<td>transportation and other</td>
<td>Education Code</td>
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<td>curricular costs</td>
<td>curricular problems</td>
<td>providing low wages for</td>
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<td>Lower financial aid</td>
<td>Part-time students must</td>
<td>teaching adult schools</td>
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<td>Federal student aid</td>
<td>be billed separately</td>
<td>community college, and</td>
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<td>Federal student aid</td>
<td>from on-campus residence</td>
<td>college, off-campus sites must</td>
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<td>Federal student aid</td>
<td>courses</td>
<td>meet field test requirements for accountable</td>
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<td>Federal student aid</td>
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<td>Low financial aid</td>
<td>CBO and ETV funding formulas tied to</td>
<td>low student aid</td>
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<td>Federal student aid</td>
<td>full-time and non-construction</td>
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In the final analysis, there should be little opposition from the postsecondary education community in the state, so that the major barrier to meeting these needs would come in the form of a relatively high level judgment that the needs are not of such magnitude that expenditure of public funds, in the face of other competing demands, is warranted.

Barriers to Meeting the Third Need

The chief barriers to achieving equity for part-time students are to be found on the campuses--for the most part in the minds of professors at the four-year institutions. Less status is attached to teaching part-time students (as in evening classes), who are regarded by many faculty as less serious than full-time undergraduates. (The opposite is probably true.) Schools or departments with many part-time students, such as education or business, tend to be viewed as less prestigious than others. This basic attitudinal disposition goes far to explain the numerous institutional policies and practices that discriminate against part-time students, including:

- Scheduling of courses at times convenient to faculty rather than to part-time students (e.g., in the late afternoon or evening);
- Discriminatory fee structures;
- Use of low paid "adjunct faculty" (as for community college evening courses) who often literally cannot afford to do real teaching jobs;
- Lack of application, registration, and enrollment procedures designed for part-time, typically older students.

Barriers to Meeting the Fourth Need

With respect to programs for groups with special needs, the principle barriers, some of which were noted earlier in this chapter, would be "situational" (in the Cross taxonomy). At the institutions, for example, there is often lack of architectural arrangements for students in wheelchairs, lack of special counseling for returning women, and lack of staff capable of
providing bilingual instruction for Spanish-speaking students. Among these students with special needs, there may be, for example, transportation problems for older persons, child care difficulties for re-entering women, and an inability to forecast earnings among low income people. Thus 28 percent of the women surveyed for this study who are interested in some kind of study indicated that child-care problems would likely be an important reason for not enrolling (Hefferlin, Peterson, and Roelfs, 1975, p. 62). And in some instances, legal barriers prevent meeting special needs, such as offering programs in prisons, or fully accommodating certain handicapped groups.

Launching new programs for special clienteles, especially when redirection of internal campus resources is required, is seldom easy at most colleges. Aside from the funding problems, such programs—not fitting neatly into familiar academic (e.g., disciplinary) and administrative rubrics—are generally regarded by administrators as "messy."

There would probably be few barriers from state agencies so long as the programs were meeting high priority needs and costs were not unreasonable.

Barriers to Meeting the Fifth Need

Faculty attitudes are also an important barrier to external upper-division and graduate programs. There is evidence from two studies conducted in California. In the first, Carl Patton (1975) studied faculty reactions to UC's Extended University, drawing for the most part on 55 interviews with "participating faculty members, administrators, and outspoken opponents" at four UC campuses. He found that teaching units (e.g., departments) were "reluctant to participate in the Extended University for two primary reasons: a lack of faculty enthusiasm, and a fear that participation will downgrad[e] the existing campus program" (pp. 435-436). With regard to "disincentives" to participation by individual professors (pp. 436, 440):

Six reasons were identified: opposition to the concept, fear for the quality of on-campus programs, concern for an increase in their teaching load, opposition to a change in lifestyle, logistics problems, and the quality of potential students.
(Some) faculty members believe that the Extended University will receive resources that would otherwise go to on-campus programs.

Travel to an off-campus site is seen as undesirable...most of them are opposed to teaching at night.

...some faculty members...see the students who desire extended education as too pragmatic and too interested in merely becoming credentialed (and also) not as qualified as regular university students.

As part of the second study (Peterson, 1973a), 551 University of California faculty members and 1,394 faculty from the California State University and Colleges rated 20 institutional goals according to how important each one should be. Out of the 20, the goal entitled "Off-Campus Learning" was ranked 18th and 19th by the two samples respectively--exceeded in unimportance only by "Social Egalitarianism" at the University, and by "Traditional Religiousness" in both systems. Among the other constituent groups surveyed, only the CSUC trustees gave this goal a lower ranking.

On an item in the survey which read "to award the AB or AA degree for supervised study done away from the campus..." 51 percent of the UC faculty said it should be either of "no" or "low importance"--compared to 20, 31, and 22 percent respectively for samples of undergraduates, administrators, and local community residents. Comparable figures from the CSUC segment were: faculty, 45 percent; undergraduates, 18 percent; administrators, 22 percent; and community people, 31 percent.

Thus there has been substantial reluctance among UC and CSUC faculty and administrators to being involved in external programs--not only because of the lack of career incentives and the other reasons noted by Patton, but probably also because of legitimate doubts about their long-range stability based on continued state support.

As it turned out, state funding for UC's Extended University and CSUC's Consortium was eliminated in the Governor's fiscal 1975-76 budget, highlighting the lack
Barriers to Meeting the Sixth Need

Meeting the need for a truly individualized degree oriented learning program in California—as discussed in Chapters Six and Seven—can be expected to confront the fullest range of barriers, since it challenges more assumptions on which existing institutions operate than any other. Many professors are concerned about the academic standards or quality of any such program, as well as the reduced prestige and career rewards currently perceived to be associated with such programs. Many administrators suspect that such a new instructional program would draw off potential enrollments from their campuses. Throughout the campuses, fears exist that funds for a new program would be taken from existing institutions. As a period of declining enrollments of traditional college-age students approaches, opposition from the segments to a new instructional program can be expected, in short, to be massive.

In addition, some state officials may have reservations about any state support for the program since it would enroll mainly older adults. Some employers are likely to have doubts about the substance of a program in which students in large part design their own programs of study. And, judging from the experience of several private nontraditional institutions in the state, the regional accrediting association in California—the Western Association of Schools and Colleges—would most likely be more than ordinarily concerned that its standards were comparable to those of conventional institutions.

Barriers to Meeting the Seventh Need

Meeting the need for access to certification of academic, and occupational competence, which may be assumed at this point to be separate functions, will encounter separate sets of barriers.

Academic certification in the form of degrees based usually on satisfactory completion of some number of courses (on the campus) is, of course, a function of colleges and universities. As noted earlier, however,
the need is for access to a degree by people who may not have attended college the requisite number of years but who can nonetheless demonstrate the same competency as a regular college graduate.

Although performance examinations and standardized tests are increasingly being used for academic certification, mostly so far at the associate degree level, this innovation is not without controversy. On this point, there was the following goal statement in the afore-mentioned survey of institutional goals (Peterson, 1973a):

to award the bachelor's and/or associate degree to some individuals solely on the basis of their performance on an acceptable examination (with no college-supervised study, on- or off-campus, necessary)...

Sixty-five percent of the University of California faculty sample and 62 percent of the UC administrator sample said this goal should be of either "no" or low importance (for their campuses). The comparable figures from the CSUC campuses were: faculty, 62 percent; administrators, 51 percent. These data suggest widespread reluctance among college and university staff about their institutions' granting degrees on the basis of "acceptable examinations," and probably substantial doubt about the concept of degrees by examination as well.

An attempt to create an apparatus by which individuals may be certified or licensed to practice a particular occupation, with or without formal training, will run up against other obstacles, most of them outside the academic establishment. Ideally, an occupational certification structure should involve, cooperatively, at least three groups: (1) practitioners of the vocation (usually through their state association), (2) postsecondary education institutions, and (3) consumers—with the entire apparatus supervised by a state agency. Many professional or occupational associations especially,

*At independent institutions, the figures were: faculty, 63 percent; administrators, 54 percent. Among the community colleges: faculty, 50 percent; administrators, 55 percent.
but to some extent also the corresponding professional and vocational schools, would likely oppose state supervision and provision for a meaningful voice for consumers in this process. Control over standards of entry, including the numbers who may enter, has come to be a jealously-guarded prerogative of many professional and vocational guilds.

In the professional and vocational schools, there would probably be opposition to the concept of occupational certification without the necessity for formal study. Training programs would need to be refashioned periodically according to new guidelines for practice, and many academics will chafe about intrusions into the institution's and the faculty's autonomy in academic affairs. On the other hand, new requirements for recertification will probably require new programs of continuing education, and the new students in them will help to take up the slack of declining enrollments of traditional college-aged students.

At the state level, however, it is difficult to envision opposition, other than to the costs of administering what could be a fairly substantial program, since the purpose of the new approach to occupational certification and recertification is improved practice for the benefit of the citizenry.

Conclusion

Part I of this report has identified a range of needs, seven of which require special state attention. Having identified these unmet needs—and the barriers to meeting them—we propose in Part II a number of ways the state can act further to extend lifelong learning opportunities to its citizens.
PART II: 

MEETING UNMET NEEDS
CHAPTER FIVE

USING EXISTING RESOURCES

As Chapter Three noted, California already has a highly developed postsecondary system of schools, colleges, and universities. Yet as Chapter Four indicated, thousands of adult Californians, by virtue of their life circumstances—place of residence, income level, family and work commitments, and the like—are denied access to these institutions and to the education they need.

Clearly these existing resources should be used to their fullest extent to assure educational opportunity to all citizens of the state. This chapter recommends certain changes in state policies and institutional priorities to meet four of the seven needs of adults required by considerations of social equity and justice, as discussed in the last chapter.

During the 1980s, the number of California's 18 to 21 year olds is expected to drop a total of 12 percent—from 1.7 million in 1980 to 1.5 million by 1990.* Even if a greater proportion of them attend college than do present-day young people (which seems unlikely), their decreased numbers will permit redirection of existing resources to serve educational needs of older adults.

Compared to the total offerings and expenditures of these institutions, the extent of this internal redirection will be modest. This chapter proposes that

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*The State Department of Finance projects these numbers of 18 to 21 year olds in California between 1975 and the year 2010:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1,646,350</td>
<td>5% increase</td>
</tr>
<tr>
<td>1980</td>
<td>1,731,630</td>
<td>11% decrease</td>
</tr>
<tr>
<td>1985</td>
<td>1,547,800</td>
<td>21% decrease</td>
</tr>
<tr>
<td>1990</td>
<td>1,517,450</td>
<td>4% increase</td>
</tr>
<tr>
<td>1995</td>
<td>1,573,900</td>
<td>21% increase</td>
</tr>
<tr>
<td>2000</td>
<td>1,903,710</td>
<td></td>
</tr>
</tbody>
</table>
several of the reforms be financed by a combination of state funds and matching institutional funds at the outset, as institutions plan for the realities of the 1980s. Conceivably, further in the future, there will be reallocations among all the elements of California education as the entire state system shifts to accommodate a generally aging population.

New services, proposed in later chapters, are required to meet three of the seven most urgent needs listed in Chapter Four. But four of the seven can be met by these five reforms: (1) accommodating part-time students, (2) expanding external degree programs, (3) reviewing the financing of adult learning, (4) providing programs for groups with special needs, and (5) reforming occupational certification and recertification.

**Accommodating Part-Time Students**

To resolve the third of the seven unmet needs identified in Chapter Four, several steps will assure greater equity and accommodation for part-time and other adult students in postsecondary institutions:

**Implementing Age-Neutral Policies**

California's tax-supported schools and colleges should be expected to move toward "age-neutral" policies, and private institutions should be encouraged to do so, in order to accommodate the learning needs of adults equally with those of youth. Institutions should adjust their application and registration procedures, class schedules, subject offerings, office hours, and student services such as counseling to avoid discrimination against adults and part-time students. They should drop arbitrary age restrictions on admission to specific programs in favor of decisions based on student needs and potential. Their facilities should be open in the evenings for part-time students. They should reduce restrictions on transfer credits, such as that of the State University and Colleges which prohibits students from transferring more than 24 semester units or 36 quarter units of extension credits to their regular degree programs. Faculty members should be helped to
acquire the different teaching skills and sensitivities required for working with older adults. Finally, in many institutions (particularly community colleges), evening students are penalized educationally because of their part-time status; their instructors, often paid between 40 percent and 60 percent of the rate of regular faculty, should be compensated for holding office hours, provided with office space in which to meet with students, and allowed the opportunity for some participation in institutional governance.

RECOMMENDATION ONE: California's colleges and universities should act affirmatively to treat older adults and part-time students along with young people and full-time students as equal members of intergenerational educational communities.

Funding: Reallocation of internal resources.

Instituting Equitable Fee Schedules

At four-year colleges and universities in the state, prevailing fees are a significant barrier to adults and part-time students for at least three reasons:

- First, high and inadequately pre-rated part-time fees discourage adult enrollments, since most adults cannot attend full-time without foregoing most of their income (which has the added side effect of reducing tax revenues for the state).

- Second, part-time students have limited access to financial aid, despite these high fees and the fact that some of them attend at a considerable financial sacrifice and have low family incomes in relation to family size.

- Third, existing fee structures and resource allocation formulas perpetuate the orientation of institutions and their staff members toward on-campus students in day programs.
In the California State University and Colleges, students in regular programs pay Student Services fees (formerly the Materials and Services Fee) based on a sliding scale linked to number of units taken. At campuses operating on the semester system, the scale is as follows:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or less units</td>
<td>$72</td>
</tr>
<tr>
<td>5 to 7 units</td>
<td>$107</td>
</tr>
<tr>
<td>8 to 10 units</td>
<td>$135</td>
</tr>
<tr>
<td>11 units or more</td>
<td>$172</td>
</tr>
</tbody>
</table>

This means that a regular on-campus student taking 15 semester units pays $4.80 per unit, but one taking ten units pays $5.10 each, or 6 percent more; one taking six units pays 59.60, or 60 percent more; and one taking only three units pays $15, or 544 percent more. Some institutional costs, of course, are the same for each student enrolled regardless of the number of units taken; and thus a weighted fee structure can be justified for the weighted need not be this large.

At the University of California, before 1974-75, all regularly enrolled part-time undergraduates were required to pay Educational and Registration Fees of $200 per quarter or $600 per academic year, the same as full-time students. In March 1974, the University Regents approved a reduction effective that fall of $50 in the quarterly Educational Fee, for those taking less than nine units as "an interim step", according to their agenda, while "the establishment of a reduced fee schedule for part-time students" was under study (Kne, 1975). That partial reduction has not yet been superseded by the awaited schedule.
RECOMMENDATION TWO: The Trustees of the California State University and Colleges should examine their sliding scale of Student Services fees and perhaps reduce by up to a third the per unit fee for those enrolled less than full-time while increasing the fee slightly for students enrolled for 16 units or more.

The Regents of the University of California should implement as soon as possible a fee structure with a reasonable floor and several steps to reflect more accurately the differences in costs and services received by regular part-time and full-time degree credit students.

Funding: Matching state and institutional funds according to formulae to be worked out.

Reorganizing Financial Aid

Not only do part-time students in degree programs pay more tuition per credit hour than their full-time counterparts, they are discriminated against in terms of student financial aid. Some aid programs are restricted to full-time students. In addition, some financial aid officers assume that part-time students have less need for aid than full-time ones. Information about financial aid is aimed at high school counselors; it thus typically fails to reach adults who have as much need and ability as high school youth. Present financial aid practices—federal, state, and institutional—form such a complex maze with various deadlines, application forms, and need-analysis requirements, that many part-time students, even when they know about aid programs, probably do not bother to apply even for the limited funds that might be available to them. And some older students may be deterred by questions in such forms, such as those about parents' income, which are addressed to youth.

Federal financial aid programs until recently discriminated against adults and part-time students, but are now moving to include them. Those administered by the State Scholarship and Loan Commission continue to
discriminate against adults and part-time students. For example, the Education Code specifies that College Opportunity Grants (COGs) and Occupational Education and Training Grants (OETGs) may not go to anyone 30 years of age or older, while the rules of the Commission restrict eligibility to full-time students.

In addition, State Scholarships and College Opportunity Grants may be renewed only for four years, thus pushing students into full attendance.*

Each year the Legislature appropriates Social Funds for the Extended Opportunity Programs and Services (EOPS) of the community colleges and for the Student Opportunity Program (SOP) of the California State Universities and Colleges. Rules of the Community College Board of Governors and the CSU Trustees, however, restrict eligibility to full-time students. Hence, it is difficult to justify this arbitrary discrimination against part-time students. A single parent on welfare, for example, who is raising several children will probably be unable to attend full-time. This person's eligibility for services and aid should be determined on the basis of ability to pay rather than on the irrelevant criterion of full-time enrollment.

RECOMMENDATION THREE: The Legislature, the State Scholarship and Loan Commission, and the governing boards of public institutions of higher education should not make financial assistance against part-time and full-time students. Loan and grant policies and practices must reflect the ability of students to meet educational costs.

Further, no new state appropriation required, a present appropriation reallocated equally.

*It should be noted that several bills have been introduced in legislation to rectify this problem. It is hoped that these will result in allowing eligibility for college grants and scholarships to part-time students.

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Aiding Needy Continuing Education and University Extension Students

Since 1968, for all practical purposes the University Extension Division of the University of California as well as the Continuing Education Division of the State University and Colleges has operated on a self-support basis, largely on the assumption that adults are more able to pay for these programs than traditional college-age youth. While this assumption may be true for a good many adults, it is clearly untrue for others. Physicians and surgeons can easily afford to pay for their continued education, for example, as can most highly-skilled professionals. But at least some nurses, social workers, and other professional workers with equal need are unable to do so. Low income people are in effect denied these opportunities. Many of the courses in these divisions are as much in the interests of individuals and the state as regular, degree-credit programs or as Cooperative Extension programs, which are totally government subsidized; and many actual and potential students are no more able to pay their entire costs than are matriculated, degree-credit students.

RECOMMENDATION FOUR: The Legislature should provide funds to the Continuing Education and University Extension Division of the California State University and Colleges and the University of California to establish fee waiver programs to assure needy students access to existing programs.

Funding: $2 million annual appropriation on the basis of Extension registrations.

Encouraging Concurrent Enrollment

Not all students who could benefit from a few courses offered as parts of degree sequences wish to earn a degree. The California State University and Colleges and the University of California have begun making available their degree program courses to non-degree oriented students through the device of "concurrent enrollment," whereby students sign up for the courses through Extension rather than going through
the often cumbersome regular matriculation process. Students continue to pay the higher extension fee, however.

The question needs to be raised whether only students admitted to a degree program at the California State University and Colleges or the University of California deserve state support, when others who need only a course or two must be charged the entire cost of those courses. Why, for instance, should a person be eligible to enroll for four years largely at state expense to study art history simply for his or her own enjoyment, when a housewife who needs an upper-division course in chemistry to return to work in order to help support her family is expected to assume its total cost?

Since the incremental cost of allowing non-matriculated students to enroll in existing courses would not be great, the concurrent enrollment fee should be less than the standard extension fee. A cost analysis could be performed within both the California State University and Colleges and the University of California to determine how much lower this fee should be.

RECOMMENDATION: Flex opportunities for concurrent enrollment should be expanded at the California State University and Colleges and the University of California by reducing concurrent enrollment fees to a point where regular fees to reflect only the incremental cost of allowing the enrollment.

Finding: No new state appropriation required.

Expanding External Upper-Division and Graduate Degree Programs

California's community colleges and private institutions have long taken the lead in meeting the needs of part-time and older students for off-campus degree programs. The state's public four-year colleges and universities have for various reasons tended to limit their off-campus offerings to non-degree programs and extension courses rather than degree programs. To meet the
fifth of the seven needs listed above, they should offer increased numbers of their regular on-campus degree programs at off-campus sites.

In the past four years, the California State University and Colleges through its External Degree programs and Consortium, and the University of California through its pilot Extended University program, have begun to respond to the aspirations of many adults who find it difficult, if not impossible, to enroll in upper-division or graduate degree programs on campus. While these programs have not fulfilled all expectations held for them (e.g., in serving many poor or disadvantaged students)—leading state officials to eliminate state support for both programs—it is nonetheless important that these programs be made available in off-campus settings. These opportunities should be substantially expanded beyond these present offerings in content, mode of delivery, and geographic location.

State support for these programs equivalent to that for regular on-campus programs is justified since by design their offerings are comparable in scope and quality to traditional on-campus offerings, but this support is now lacking. Not only does equity demand this equivalent subsidy, state support is likely also to stimulate creation of more effective and efficient instructional systems.

The State University and Colleges operate its External Degree programs and Consortium for administrative reasons through its Continuing Education Division, and the University could well do so through University Extension. Typically, such an organizational arrangement has several advantages: access to administrative and marketing expertise; support services that are sensitive to adult needs and learning styles; ability to offer special incentives such as overload compensation for faculty participation; resources (albeit limited) for creating programs that cut across traditional disciplinary boundaries; and program flexibility through such devices as fixed term contracts for adjunct faculty. This use of Continuing Education or the possible use of University Extension as an effective administrative structure should not bar state support for these degree programs. They deserve state support on the same basis as on-campus programs with equivalent purposes.
The utilization of state funding formulas may not always ensure equitable outcomes because of differences in their use of student services, and student services, differences in resource configurations for off-campus or field-based instruction, variances in their staffing patterns, and their need for special one-time start-up and program development funds. The cost of developing a program along with its opens to the public, providing mobility, expected number of students, and their need for social and private benefits should also be taken into consideration in the amount of public resources to be secured for initial development. But these decisions should be made on educational grounds rather than a change in the geographical location of the program.

In the late-sixties Degree programs of the University of South Carolina, and the state-supported programs because of their part-time status, the need for external degree programs of the state university was called for. But the opposite is true; university and the state-supported student--diversity of the student unit or its equivalent, the state-supported program development money allocated to the Consortium (now called the state-supported program or a small amount of money for salaries, the external degree programs and the Consortium should be self-supporting. Because state standards has adopted in the 1960s for state institutions and the university of state supported institutions. The state in the institutions, and consequently the centrally authorized campus and no state supported state programs. For the state off-campus, degree programs are restricted to the few willing and able to pay the price. Therefore, it will not be an external degree program--2,500 at most.

Professor program for equivalent educational experiences among students between external degree and traditional campuses, the state university right seems to lack the social and financial stability of nature. Lack of these services and to pay for services. However, this is not the only reason to pay the social services. Since the number of adults off-campus students is restricted to a few above the 2,500 level. This change in the number of students and the public effect on the Consortium of what is the Consortium and what is the Consortium?
earnings and reducing tax revenues from such earnings; and above all, they reflect only crudely, if at all, underlying differences in ability to pay. By no means are all older adults able to pay the full cost of a degree program, while many young adults do not need full subsidy. A much better approach would be standard prices for equivalent educational services—whether external or on-campus—and reliance on the student financial aid system to determine for both external and internal programs the proportion of educational costs that should be met by students and their families or by the state.

RECOMMENDATION SIX: The California State University and Colleges and the University of California should further extend their regular degree programs to off-campus locations in ways, times, and places convenient to adults.

The Legislature should allocate program development funds to both systems to design new programs, and methods of instruction, such funding to be limited to two years for each new program.

State subvention for external degree programs of the State University and Colleges should be on approximately the same basis as that for regular on-campus programs having the same purpose.

Funding: Approximately $2 million annual appropriation for program development to be divided between the segments on the basis of $75,000 per new program.

Reviewing the Financing of Adult Learning

In responding to the third and fourth needs—those of part-time and special groups of students—the financing of public school adult education and community colleges should be thoroughly reviewed. The two financing patterns need to be examined in and of themselves, and as they relate to each other.
California's public policy has been to offer an array of credit and non-credit opportunities in public adult education programs, regional occupational programs and centers, and community colleges to keep direct out-of-pocket costs for students as low as possible. This policy means that the state's citizens choose to subsidize these services rather than charging instructional costs to students.

This state subsidy is apportioned to school districts, regional occupational programs and centers, and community colleges on the basis of average daily attendance (ADA) through generally simple funding formulas. In the case of community colleges, for example, only one distinction is made among district residents: ADA generated by "defined adults" (students 21 years of age or older who are enrolled for fewer than ten contact hours) produces less state money than ADA generated by "other than defined adults." This distinction, however, is only a crude reflection of the underlying educational needs and financial resources of individuals or of different program characteristics such as occupational objectives versus those of personal development or enjoyment. Furthermore, funding bases are not consistent between school districts and community college districts for similar programs. And revenue limits imposed by SB 90 and SB 6 have encouraged local districts to substitute low-cost for high-cost programs, a decision not always compatible with the most beneficial use of educational resources.

No justification exists for basing differential state subsidy on the characteristics of institutions, rather than on the nature of their services, their program purposes, and the needs of their intended clientele.

Thus, for example, the Legislature should consider removing the "16 percent of cost" restriction on its support of instruction authorizes as part of the Coordi-
nated Instructional Systems program of the Community Colleges Board of Governors, and the Board should attempt to assure that community colleges cooperate in the development of such systems to realize the economies of scale implicit in mediated methods of instruction. More fundamental reform will take time, since little is known about the consequences of feasible options. Resolution of inconsistencies in funding between adult schools and community colleges has taken on special urgency, however, with the recent actions of the Legislature to put a 5 percent "cap" on enrollment growth supported by state funds in both segments.

Beyond these inconsistencies, the veritable maze of state financing for postsecondary education at large requires reexamination. The entire apparatus has grown like Topsy over the years to the point where almost no one understands it in its entirety. As a result, blatant inequities exist. Where, for example, is the justice in subsidizing the poor only if they enroll in a "stated planned program" when some need only a few courses to improve their condition? Where is the justice in the poor but talented person being unable to take an art course by University Extension because the fee is $9? Might not the poor have the right to study art the same as the rich? And why should there be no fees for Agricultural or Cooperative Extension activities, some of which, such as quilting and cake-baking, could be regarded as frivolous in some quarters, while highly specialized University Extension courses are priced at full cost to the student?

And what should be the policy or criteria for state aid of adult learning? By age, with greater subsidy of youth? By educational attainment, with greater subsidy of the less educated? By ability to pay? By field of study, with greater subsidy of fields that increase the earning capacity of the student? By social and economic utility of the learning?

A task force on postsecondary financing to deliberate and resolve these issues and to develop new funding mechanisms is clearly needed. The task force could consider program or mission-based mechanisms to augment ADA and FTE enrollment-based procedures. It might recommend tuition equalization grants to independent colleges, as proposed by the Carnegie Commission on Higher Education.
1974, to reduce the impact of the gap between fees for public and independent colleges. And it could weigh the consequences of stipends to aid the poor in continuing their schooling or of vouchers on which people could draw throughout their lives, as is currently under study in New York (Kernland, 1975).

Of these two recommendations, the latter should receive the greatest attention. It should be noted, however, that the summary of the recommendations presented here is based on the recommendations of the National Commission on Higher Education, which was established to consider and develop policy recommendations for higher education in the United States.

The conference of the special committee on higher education recommended that

![Recommendation Table](image)

Providing Programs for Groups with Special Needs

To meet the fourth of the seven needs, existing institutions need to develop or expand their programs and services deemed to be responsive to the special educational problems of particular populations.

As noted earlier, according to the Postsecondary Alternative, 10 percent of the adult population, as many as 20 percent of those over 45 years of age, would like to participate in further education, but only 2 percent are now doing so. Some 10 percent of the state's adults of Spanish or Mexican descent would like to participate, but only 1 percent are doing so. Other such groups were not adequately represented.

At the national level, the American Council on Education has established the National Commission on Higher Education, which is currently reviewing and that
Congress direct federal aid to such groups of students.* California should do so at the state level. As Marcia Salner says (1975, p. 176):

Increased state financial support for community education and development programs, and for programs aimed at high cost, high risk populations are urgently needed. Presently, adult school and community college teachers and administrators confront a distressing set of social and individual educational needs with very inadequate financial resources. Ethically, it is difficult to argue that the educationally, socially, and vocationally disadvantaged in the population should not have the greatest claim on the state's resources for postsecondary education.

Once the California Postsecondary Education Commission is adequately staffed to fulfill its responsibilities for data collection and analysis of postsecondary needs in the state, as recommended below in Chapter Eight, it will be better able than any other agency to determine which special groups require priority programming. The Commission could be a vehicle for directing funds to public and private institutions in the state--on the basis of competitive matching grants--for programs to serve these populations. Some institutions might, for example, obtain their matching funds from outside sources such as the federal Fund for the Improvement of Postsecondary Education. The Commission's staff

*Following a year-long study, the Committee in 1974 called on Congress to amend the Higher Education Act of 1965 to provide a general support program "directed towards those students and groups whose education and training would serve the public interest" in the same way it has funded education until now for such other high-priority groups as farmers and health professionals. It noted (1974, pp. 13-14):

The funding of institutional capabilities for extending institutional resources to high priority clientele groups can maximize the targeting of educational programs for those with special needs at the same time that institutional strengths are reinforced and expanded.
has had a number of years experience in administering competitive grants under Title I, Continuing Education and Community Service, of the Higher Education Act of 1965.

In the interim, legal and other barriers to aiding groups needing special educational services should be removed. Some of these involve portions of the Education Code which restrict eligibility for state support—

for example, in the case of prison inmates, Sections 819, 5718, 17951 and 17970. State and local support of women's re-entry education programs and of child care centers should be continued. Per pending legislation, state funds should be appropriated for excess costs of serving students with physical, communication, or learning handicaps in community colleges, and the $50,000 limitation on state aid for adult education programs for handicapped adults operated by county schools should be raised.

RECOMMENDATION EIGHT: To meet the learning needs of particular groups who have not been well served by the state's post-secondary institutions or who require special educational services, the California Postsecondary Education Commission should receive an annual appropriation with which to make competitive matching awards to public and private institutions for programs addressed to these groups.

Funding: Annual appropriation to the California Postsecondary Education Commission, based on its assessment of the need.

Experience with the Cooperative Extension Service indicates that this approach does not require massive governmental bureaucracies at federal or regional levels nor does it deny the benefits of decentralization of programming to deal with local needs.
Despite criticisms of burgeoning credentialism in American society, some system of occupational certification or licensure is undoubtedly necessary to ensure competent practice and consumer protection. However, there are serious inadequacies inherent in the general approach to occupational certification followed in California (and elsewhere). At least three sets of issues related to occupational certification and recertification are increasingly coming in for public debate, and have implications for meeting the second half of the list of the needs mentioned in Chapter Four.

First, with regard to original certification for jobs, individuals deserve to have direct access to the credentialing process without the requirement of completing specific training programs. That is, people should be able to be certified or licensed to practice an occupation if they demonstrate the requisite knowledge or skills, regardless of how they may have acquired those abilities (cf. Hodgkinson, 1974). For example, a nursery school teacher with a number of years experience should have the right to be certified for public school teaching without having taken courses in education, if she shows the personal qualifications needed in early childhood education. (A system of performance examinations would be one way to assure that this person could be certified simply by demonstrating the requisite competence—however acquired.)

Second, another issue derives from the facts of technological change and consequent skill obsolescence discussed in Chapters One and Two. Large numbers of skilled workers, technicians, and professionals at many levels need to undergo retraining because of changes in the job market and in job qualifications. They should have the opportunity to do so, and the state—from the standpoint of investment in its human capital—should help provide these opportunities. In the absence of government support, workers and their employers typically underinvest in skill upgrading and retraining.

The third set of issues relates to recertification and upgrading of vocational or professional competence—an issue presently attracting much public attention. As illustrated by the concern about medical malpractice, consumers are demanding continued competence by practitioners in light of the continuing growth of professional knowledge. Professional and occupational groups are taking steps to increase continuing education and continued competency, but the question they face is how this competency is to be assured. The most common procedure is to require practitioners to complete a certain
amount of continuing education in a given period of
time. A major difficulty with this "back-to-school"
approach, of course, is that merely taking some number
of courses will not guarantee continued competence.
Needed in addition, or instead, are periodic skills
examinations or other forms of occupational assessment
plus new and innovative continuing education programs in
the colleges and universities.

Taken together, all three issues define a problem
area that urgently requires coherent state policy.
Several major interests are directly affected, including
the respective practitioners (through their state asso-
ciations), postsecondary institutions (providers of the
training), consumers (as recipients of the services),
and the state, which would presumably take ultimate
responsibility for the entire certification and recer-
tification apparatus in the public interest. Several
existing state agencies, including the Employment Devel-
 opment Department, the Department of Professional and
Vocational Standards, the Department of Consumer Affairs,
and the Postsecondary Education Commission, all have
interest in the structure and operation of the state's
occupational certification and recertification mechanism.
Creating an intelligently policy to accommodate this array
of interests can be expected, in short, to be a highly
complex undertaking.

RECOMMENDATION SIDE: the legislature should go
on record in favor of initial occupational licensure
and continued certification on the basis of specified
dependent skills and competencies rather than particular amounts
of units of education.

1. The Department of Professional and Vocational
Standards, the separate state licensing boards, and
colleges and universities should work towards compet-
ce - and performance-based criteria for certification
and recertification rather than numbers of
units of training.

2. The Department of Labor and Industry should authorize a
two-year task force to study all the affected parties, to undertake a two-year study of
these issues and to formulate a coordinated policy for
the state and its localities.

Funding: $150,000 for staffing a two-year
task force.
CHAPTER SIX

CREATING NEW SERVICES

Turning California's existing postsecondary resources in new directions cannot by itself provide the learning opportunities now denied thousands of its adults. To assure these opportunities, and to respond to the remaining needs identified in Chapter Four, three entirely new groups of services are required as well:

1. Assistance regarding career planning and learning opportunities;

2. Individualized degree-oriented learning opportunities; and

3. Academic certification without required formal instruction.

Not all Californians interested in continuing their education need the aid of all three of these services. But some do, and this chapter describes the three sets of services in the order those people would typically use them. Thus by far the largest number will want career counseling and information about educational opportunities available to them. Only then will a much smaller number wish to avail themselves of an individualized learning program, and then of certification--such as with a bachelor's degree.

Assistance Regarding Career Planning and Learning Opportunities

The first of these three services seeks to meet the first two of the seven major needs discussed in Chapter Four: help in locating educational opportunities, and individual assessment, counseling, and career planning. It aims to assist people in clarifying their life plans and to link these individuals with available learning resources that can help them realize their career aspirations.
This general service consists of four related functions which in practice are interwoven (and could be provided by the same agency or individual):

1. Information and referral;
2. Assessment of interests and competencies;
3. Counseling and career planning; and
4. Aid to individuals in coping with institutions.

Information and Referral

The most immediate course of action for reducing the gap between educational needs and existing resources lies not in the creation of new programs. It lies in the better dissemination of current information about available programs.

Ideally every community in California should have a central information and referral "Yellow Page" service about learning opportunities in the region (and elsewhere in the state): those offered not just by schools and colleges, but by alternative schools, occupational centers, recreation departments, museums, business and industry, other community agencies, and even individual tutors.

According to Harold Hodgekinson and William Shear (1975, p. 10):

At the moment, most such information is made public by the institutions which will collect the tuition fees.... What is needed is a "Yellow Pages" conception, listing all of the resources available to citizens in the area, regardless of the agency sponsoring them.

The cost involved in generating such information is quite low, compared to the benefits to the citizens who want to know the range of activities available to their area.

For example, some Californians mistakenly believe that they need to be high school graduates in order to enroll in community college. Others may not know that
know the name of the district that runs the school or college in order to find the right number to dial.

Other states are leading the way in creating such I&R facilities.

- Oregon, for example, has assembled information about all postsecondary programs available anywhere in the state for its computerized Career Information System. It has placed computer terminals in 95 percent of its high schools, all of its community colleges and correctional institutions, most of its four year colleges and universities, and some other community and state agencies so that anyone can obtain facts not only about career possibilities but related educational opportunities from this system.

- In New York State, the Regional Learning Service of Central New York, serving the five-county area surrounding Syracuse, began its educational counseling work with adults in 1974. Without publicizing its information service, it received 1,500 telephone inquiries about learning opportunities in its first month.

- In Manhattan, the New York City Regional Center for Life-Long Learning has since January 1974 operated a telephone and mail information referral service about continuing education opportunities; during its first 14 months it received over 9,000 inquiries.

- In Rhode Island, the Providence Career Education Project, funded by the National Institute of Education, operates a postsecondary education information service entirely by telephone that contains files of over 900 education and training programs in the area.

Within California, several examples of I&R services exist, but few of them emphasize educational programs:

- In Los Angeles, residents can now dial (213) 639-5275 or come to the "ANSWERS" desk in the Los Angeles City Library for information about sources of community services. The Educational Opportunity Center, a pilot program funded by the U.S. Office of Education, provides community-based educational information.
● In Santa Rosa, the Santa Rosa County Library is organizing a similar lab service, using the entire library staff to answer questions and make referrals to other community agencies.

● In San Joaquin County, the pilot Career Guidance Center, opened in 1974 by the County Department of Education with state support under AE-106, is providing information on career opportunities to students, teachers, and parents.

● In Salinas, the "English on Wheels" project of the Salinas School District aims at community development among Mexican-Americans. Along with English-language training, it offers referral assistance to community members of all types.

Drawing on the experiences of these programs, California should establish a statewide GED program concentrating on educational opportunities, but having the capacity for referral to related services as well.

Assessment of Literacy and Competencies

A comprehensive information and assistance service is needed to help people assess their individual skills, aptitudes, and potential. Some adults who seek further education, such as those frustrated in their present work but unsure of their competence for other jobs, should have access to individual assessment and self-diagnostic aid before choosing one or another education-philosophy.

This assistance is already available to students once they enroll in institutions. But access available to consider, however. For example, the University of California at Davis, as part of its enrichment program for helping freshmen from disadvantaged backgrounds, reserves these students with diagnostic testing and counseling until the summer prior to their enrollment; but Harris has no arrangement allowing townspeople or other nonstudents to use its counseling services, even if they paid to do so.

More institutions are taking a greater interest in services into their community and service area.
Chico State University, in cooperation with Davis and local community colleges, offers adults some diagnostic services through its Northeastern Rural Outreach project.

- California State College at Bakersfield operates Project CALL ("Counseling Adults for Lifelong Learning").

- And the Los Angeles Community College District, with its Mobile Advisement Center, offers diagnostic testing and counseling at sites such as factories, shopping centers, schools, and community agencies.

What is needed are statewide opportunities to aid potential learners in assessing their own capacities, conceivably combined with the information and referral system just described.

Educational Counseling and Career Planning

Beyond helping potential learners assess their interests and aptitudes, the state needs to provide conveniently available counseling services for people desiring help in thinking through educational plans and career goals. The approach of this counseling would be non-therapeutic, focusing on clarifying aspirations and plans, rather than treating psychological problems. As a result, few staff members would need to be professional psychologists. Instead, they should typically be friendly, experienced persons who know educational resources and job requirements, and are able to recognize when someone requires psychological or psychiatric assistance (and are able to make an appropriate referral).

- Elsewhere in the United States, the Regional Learning Service of Central New York mentioned above uses 22 learning consultants to meet with prospective learners in their own homes or offices, confer with them by telephone, and hold group counseling workshops during lunch hours or on weekends to assist them in educational and vocational planning.

- In Providence, Rhode Island, people can call (401) 272-0900 for educational and career counseling from Providence's Career Counseling Service.
The library systems in Atlanta, Baltimore, Denver, St. Louis, and seven other cities participating in the National Library Independent Study and Guidance Project of the College Entrance Examination Board are offering counsel to adults who seek to continue their education on their own through independent reading and private study (Mayor, 1975, p. 15).

In California, many agencies and institutions offer educational and job counseling—from the Department of Vocational Rehabilitation and the Employment Development Department to schools and colleges, regional occupation centers, community action agencies, Talent Search programs, and experimental agencies such as San Diego's Pilot Career Guidance Center. Within Los Angeles County alone, some 70 educational counseling units are reportedly in operation. Moreover, the Legislature has called on the California Postsecondary Commission to plan several community postsecondary counseling centers and to test the concept in several urban and rural localities; the Commission expects to submit its proposal to the Legislature in October 1975.

Clearly there is a statewide need for a well-conceived community- and consumer-based educational and career counseling service.

Aid to Individuals in Coping with Institutions

Finally, this comprehensive advisement service should have the function of working informally on behalf of potential learners against the inevitable procedural "red tape" and inertia of educational institutions. Some prospective students, such as older persons who have long since been away from school, will lack the confidence or assertiveness necessary to gain access to whatever institutional services may be available and appropriate for them. What is needed is a helping hand in coping with "the system"—in resolving misunderstandings, disagreement, and impasse.*

*Individuals working in this "advocacy" capacity could be expected also to work with area colleges and universities to help simplify their procedures.
The Capital Higher Education Service, a counseling and information service in Hartford, Connecticut (supported by the Fund for the Improvement of Postsecondary Education), reportedly devotes close to half its efforts to this "advocacy" function--actively helping clients implement their educational aspirations. Already in California, 55 of the 100 community colleges in the state employ "enablers" to help handicapped students on campuses obviously not designed for them. As another example, Agriculture Extension agents operate as middlemen between individuals (farmers) and the larger economic and social systems.

Instead of relying on regular salaried staff in helping potential learners cope with bureaucratic procedures, it is conceivable that "paraprofessionals" or volunteers well acquainted with academic life, such as retired college staff members or currently enrolled students, could participate in this advocacy service.

These four functions--information, assessment, counseling, and advocacy--need to be available together, capable of being provided in whatever combination may meet the unique needs and circumstances of individuals. The best example of such a comprehensive service in California is probably the Educational Opportunity Center in Los Angeles. Operating out of two branch locations, it provides information, counseling, and advocacy services, and has a referral arrangement for diagnostic assessment. In the future, these four functions should be available to residents of all communities in the state through a statewide network of community-based, regionally coordinated Educational Services Centers. Alternatives for the organization and sponsorship of these centers will be discussed in Chapter Eight.
RECOMMENDATION TEN: To meet the need of potential adult learners for information about learning opportunities and for counseling about career plans—the most immediate and widespread of all learning needs—the California Legislature should appropriate developmental funds to create a statewide system of Educational Services Centers to provide information and referral, assessment of interests and competencies, counseling and career planning, and aid to individuals in coping with institutions.

Funding: State subvention for the third full year of statewide operation would range between $2.9 million and $3.4 million, depending on sponsorship alternative.*

Individualized Degree-Oriented Learning Opportunities

Pursuant to the sixth major need—for the opportunity for flexible degree work for adults whose commitments prevent regular classroom attendance—California should establish a statewide degree-oriented program that enables individualized time- and space-free learning. In that individuals would be able to tailor-make their learning plans, the program would be somewhat comparable to Empire State College in New York, Minnesota Metropolitan State in Minneapolis/St. Paul, and the University Without Walls program throughout the United States.

There are many ways to learn besides sitting in a classroom, and many differences among people in their learning styles and aspirations. For these reasons, California should offer more than the conventional route to a college degree.

As early as 1926, Eduard C. Lindeman offered the rationale for such an educational approach (pp. 8-9):

*The bases for these cost estimates in Chapters Six and Seven are given in the Appendix.
In conventional education the student is required to adjust himself to an established curriculum; in adult education the curriculum is built around the student's needs and interests. Every adult person finds himself in specific situations with respect to his work, his recreation, his family life, his community life, et cetera--situations which call for adjustments. Adult education begins at this point. Subject matter is brought into the situation, is put to work when needed. Texts, and teachers play a new and secondary role in this type of education; they must give way to the primary importance of the learner.

Even now, however, 50 years later, virtually all degree programs consist of an established curriculum—a set of sequences of courses—rather than individually-tailored learning. Several private colleges and universities in California (and elsewhere in the country) offer the needed flexibility, including Antioch College West, Johnson College at the University of Redlands, and the University Without Walls, Berkeley. Among the public colleges and universities in California, only two programs—the humanities and liberal arts programs of CSC-Sonoma and CSC-Dominguez Hills respectively (both conducted in cooperation with the Consortium of the California State University and Colleges)—allow the individualization advocated years ago by Lindeman, and now by an expanding number of educational leaders throughout the country, including the various study commissions cited in the Preface, as well as Gould and Cross, 1972; Houle, 1973; and Hesburgh, Miller, and Wharton, 1973.

Mary adult learners, particularly in specialized technical or professional programs, need a highly structured curriculum based on an established discipline. Conventional campus programs offered on or off campus can suffice for them. But others who are capable of an essentially independent approach to learning should have the opportunity to tailor-make their degree program in consultation with institutional advisors on the basis of their own specialized interests and aspirations.
Empire State College, established in 1971 as a unit of the State University of New York system, provides such tailor-made programs for citizens throughout New York State through a network of learning centers, where individual students and their mentors design a degree program that meets the student's objectives and the college's required proficiencies. A student typically receives advanced standing on the basis of demonstrating knowledge and competence, and then completes his program through a series of "learning contracts" planned jointly with his mentor. These contracts may include course work at a neighboring college or university, papers on particular topics, internships in government agencies or other organizations, field work, special seminars, home-study courses, and independent reading.

While innumerable details will remain to be worked out, some of which are touched on in Chapter Seven, the hallmarks of the proposed individualized learning program are (1) flexibility of content centered on the individual's unique interests and plans, (2) flexibility of learning methods as embodied in unique program plans for each student (as approved by program staff), and (3) credit toward the degree for prior learning--on the job or in the military service, for example.

Presently in California, the Consortium--the 1,000 Mile Campus--of the California State University and Colleges represents the nearest public approach to such an individualized learning program. Its future, however, is precarious because of lack of funds for its continuance in the Governor's 1975-76 budget. It could serve as the basis for an expanded individualized program, though an adequate program would require a higher level of funding than is now available to the Consortium, as well as a thorough commitment among CSUC staff to the individualized learning concept.

Organizational arrangements for sponsorship of the individualized learning program other than CSUC Consortium are of course conceivable, several of which are detailed in the next chapter.
RECOMMENDATION ELEVEN: To meet the need for individually designed degree programs that take into account students' unique backgrounds, current life circumstances, and career interests, the Legislature should appropriate developmental funds to create a statewide individualized learning program.

Funding: State subvention for the third full year of statewide operation would range between $4.8 million and $5.3 million, depending on sponsorship alternative.

Academic Certification Without Required Formal Instruction

To meet the last of the seven needs listed in Chapter Four, California should join in the growing national trend to grant academic recognition in terms of degree credits for knowledge and skill, regardless of how acquired. "Certification has meant in the past," K. Patricia Cross notes, "that the student has enough persistence and motivation to sit through 128 credit hours of instruction at some kind of institution... Advocates of the external degree propose to certify the level of accomplishment regardless of the pathways used to reach it—a quite different concept from that used in certifying the pathways regardless of the final level of accomplishment" (1971, pp. 163-164).

And the Joint Committee on the Master Plan for Higher Education noted (1973, pp. 54, 56):

There are many ways of acquiring knowledge and competencies besides attending college. It is wasteful of time and resources of individuals and the state to insist that persons who have acquired knowledge outside the classroom return to college to accumulate academic credit hours for a degree. In addition, some persons are highly mobile and never have the opportunity to remain in
one institution long enough to fulfill residency requirements for degrees. There should be an agency which can evaluate their extra-mural learning, including work experience, and award a degree when the requisite knowledge is attained.

Two separate functions of this broad service would meet the needs of the same or different individuals. They are:

1. Validation of learning experiences; and
2. Recording of learning experiences.

The first is a basic, essential service; the latter is more ancillary in nature. Each of the two, in turn, has two subservices, as described below.

Validation of Learning Experiences

This service involves: (1) awarding varying amounts of degree credit for prior learning that meets acceptable standards (as assessed by any of a variety of techniques); and (2) granting of degrees on the basis of demonstrated competence, however that competence may have been acquired.

Awarding Degree Credit for Prior Learning. This service would be for individuals who desire a college degree—associate, bachelors, masters, let us say—and who believe they have acquired some (or all) of the knowledge or skills associated with a conventional campus-based degree program in their off-campus experiences—paid or volunteer work, military service, community work, independent study or creative work, and so forth. While individual colleges are increasingly awarding limited amounts of academic credit for non-campus learning, the need is such that there should be a statewide mechanism by which individuals can give evidence of or otherwise demonstrate competence in order to receive unlimited amounts of credit toward a degree, and eventually receive the degree itself.

A number of methods for evaluating prior learning are being either used or experimented with. One method is through the use of standardized tests. In 1961, for
example, New York State took steps to enable adults to receive college credit for non-college learning by establishing the New York College Proficiency Examination Program as a means for recommending to colleges that they award academic credit for knowledge gained outside of courses.

More recently, the College Entrance Examination Board developed its College Level Examination Program (CLEP) for use by institutions and agencies throughout the nation in awarding credit for demonstrated knowledge; and now over 250,000 CLEP examinations are administered on the nation's college campuses each year to some 88,000 individuals, while 200,000 are used annually in the armed forces.

Other ways of evaluating prior learning beyond using tests can be employed.

- Training programs in industry and government can be assessed in order to compare the level of their content with college courses. The Office on Educational Credit (formerly the Commission on Accreditation of Service Experiences) of the American Council on Education in Washington, D.C. now advises colleges about appropriate credits to award graduates of programs it has evaluated.

- The New York State Education Department is assessing business and industry programs in New York State for the same purpose (as well as allowing some of them the privilege of granting degrees for degree-level work).*

- Over 200 colleges and universities are participating in the Cooperative Assessment of Experiential Learning (CAEL) project, coordinated by the Educational Testing Service. Supported currently by Carnegie, Ford, Lilly, and Fund for the Improvement of Postsecondary Education grants, CAEL is working to develop and test

*California can draw on both the ACE and New York projects in initiating its own program of assessment of noncollegiate training programs. The CSUC Consortium, in fact, has recently submitted a proposal for external funding to do just that.
a variety of techniques for evaluating prior learning including: use of "portfolios" (as student-assembled dossiers of evidence of prior learning); evaluation of "products" (essays, paintings, various "exhibits" of creative work, etc.); assessment of occupational competencies via "work tasks," and "work samples;" and assessment of interpersonal skills. In most instances, evaluations rely on judgments of panels of experts (professors and others).

In sum, adults learn in a variety of settings other than on the college campus, and many colleges across the country are employing a variety of approaches to assessing competency, regardless of how it was developed, for purposes of awarding degree credit and advanced standing. The "validation" service proposed in this report would utilize the best techniques available for evaluating and crediting prior learning: if judged necessary, the service could also have its own staff capability for developing wholly new methods for assessing prior learning.

Granting Degrees. Besides using such techniques to enable people to translate prior learning to academic credit, the proposed validation service should also be empowered to award full academic degrees conceivably up to and including the master's degree.

• For decades this opportunity has been available at the high-school level, where high-school dropouts can earn high-school equivalency diplomas through the General Educational Development test. As of 1973, ten percent of the nation's high school diplomas were awarded by state departments of education on the basis of scores on this test.

• At the higher education level, Great Britain has long awarded external degrees through government agencies as well as educational institutions, notably the University of London. In 1964 it created its Council of National Academic Awards, with the Duke of Edinburgh as honorary president, to award a wide range of degrees.

• In the United States, New York State again led the way when in 1972 it awarded its first Regents External Degrees—offered not by any institution but by the Regents of the University of the State of New York through the State Education Department. Using the 108
adults who earned a Regents degree that year, 20 percent had never attended college at all. As of 1975, over 8,000 New Yorkers have either received a degree or are taking tests to earn one.

According to the Regents (University of the State of New York, 1973, p. 7):

The Regents External Degree is a truly "external" degree; it is awarded by a university which evaluated a student it has not directly taught. The University of the State of New York has no campus, resident faculty, or students in the traditional sense. It publishes its requirements and awards a degree to anyone who can meet them. There are no requirements of admission, residence, or age, and the methods of preparation are not prescribed. Degree requirements can be satisfied in several ways. No classroom attendance is required and no instruction is provided...Building upon the principles and experiences of the College Proficiency Examination Program, outstanding faculty and administrators from New York State's public and private higher institutions and business and civic leaders work with testing specialists to establish Regents External Degree requirements, to determine how these requirements can be met, and where necessary to develop examinations which can be used to satisfy degree requirements.

Another example of a state institution empowered to grant external degrees, i.e., degrees for work not necessarily done in residence on a campus, is Thomas A. Edison College in New Jersey. Though it provides extensive counseling for its enrollees, Edison College is essentially a "validating" institution like the New York Regents External Degree. The following description is provided by Trivett (1975, pp. 57-58):

Thomas A. Edison College was created by the Board of Higher Education in New Jersey to administer an External Degree Program. Credit for a degree can be earned through transfer, proficiency or equivalency examination, and for formal service schools evaluated by CASE. Thomas Edison College also offers individual assessment, through which those who have acquired college-level knowledge by experience,
independent study, or course work at nonaccredited institutions may acquire credit from the college. The assessment itself will be carried out by a college faculty member who might employ oral, written, or performance examinations or evaluate a portfolio. The emphasis is on college-level knowledge gained through nontraditional methods. A variation offered by Thomas Edison is that Group Assessment may be used for groups of people who have taken training courses in a business or public agency. Individual assessment is limited to students who have enrolled for a degree at Thomas Edison College.

The college also has its own examination program known as the Thomas Edison College Examination Program. Examinations are given in business administration and foreign languages. Study guides, examination descriptions, and information are available for the students.

Some Californians may be willing to apply to the New York State Education Department and pay the $125 to $175 necessary to be tested for the degrees, and travel to New York State to take its examinations or to New Jersey to seek a Thomas A. Edison degree.

California, however, should offer its residents a similar opportunity. It is absolutely essential that California's external degrees be based on unquestionable standards and have unimpeachable quality. In contrast to degrees from many colleges which typically signify little more than some number of units completed, they need to have identifiable meanings—possibly in terms of achievement of "general education" or "core" competencies, as well as, for some degree recipients, specialized competencies.* All of these are complex and controversial issues, about which more will be said in later chapters.

*Since most every learner recipient is likely to have followed a slightly different path to reaching the designated level of competency, it would be useful to prospective employers and others if a summary of the various learning experiences and evidence of competencies on which the degree is based could be appended to the actual diploma.
Recording of Learning Experiences

Besides granting credits and degrees, this new service should perform two recording functions. It should operate (1) a credit registry or "credit bank" as a record of all degree-creditable learning experiences; and (2) a service for recording, as in a resume, all manner of career-relevant materials.

Maintaining a Credit Bank. The need for this service arises chiefly from the twin facts that, first, many people have attended many different postsecondary institutions (and may have been granted degree credit for non-college work as well), and, second, that transfer institutions do not have uniform standards for crediting work done at other institutions.

Taking a national view, the Commission on Non-Traditional Study (1973, p. 135) recommended that:

A national educational registry should be established to evaluate a student's total educational accomplishment as measured by course credits, examinations, or other means, and keep a continuing file to which items could be added...

As the Commission explained (pp. 135-137):

The need for this registry has become evident to many people, though they have used various names to describe it, such as credit bank, educational record service, or educational evaluation center... People move in and out of college just as they do in other walks of life. Instruction is offered at many places and under countless auspices, both formal and informal...(and) a large number of Americans...find themselves with many evidences of formal learning but with no institution available which will help fit them into a coherent pattern for a degree. The registry would...serve as a kind of bank in which the student deposits educational credit.

The work of a postsecondary education credit bank for California would have two main components: first, it would draw together all degree-creditable work into
a single "transcript," and second, it would record the
number of credits awarded for each course (or other
learning experience).

The credit bank would be computerized, capable of
ready updating, and "statements" would be issuable to
students in a convenient transcript format. (Mainly
because of the work involved in evaluating course work
done many years in the past at colleges about which
little is known, the cost of this service to many indi-
viduals could be quite high.)

Providing a Record of All Career-Relevant Experiences.
In addition, many persons may want a record of all their
educational, occupational, relevant avocational, and
other appropriate experiences—degree credited or not.
In that the record would include whatever documents or
descriptions of experiences the individual wants in-
cluded, this service would be essentially a résumé ser-
vice. Such a résumé should be capable of repeated up-
dating as the individual wishes. While a state agency
would issue the record, the state would not verify the
accuracy or validity of the documents submitted for
inclusion. The record would be confidential, and dupli-
cated for distribution only at the individual's request.
Presumably its chief use would come as the individual
seeks employment, although it may be useful in contacts
with educational and other organizations as well. As an
aid to persons needing a handy, semi-official" résumé, the
full cost would be charged to the user.

With regard to the technology of such a service,
materials submitted would need to be photographed and
stored in miniaturized form—e.g., microfilm form. The
record could also be issued in miniaturized form—for
example, as microfiche, or in the wallet-sized format
of the "educational passport."

Under development by Educational Testing Service pur-
suant to a grant from the Lilly Endowment, the educa-
tional passport consists of credit-card size micro-
film sheets containing, among other things, photographs
of up to ten 3½ by 5 inch documents.
RECOMMENDATION TWELVE: To meet the need for academic certification of persons who have acquired knowledge or skill in other than academic settings, the Legislature should appropriate developmental funds to create a statewide learning validation service for awarding degree credit for prior learning, granting associate, bachelor's, and master's degrees on the basis of demonstrated knowledge and skill, maintaining a credit bank, and providing a record of all career-relevant experiences.

Funding: State subvention for the third full year of operation would range between $1.6 and $2.0 million, depending on sponsorship alternative.
CHAPTER SEVEN

IMPLEMENTING THE NEW SERVICES

Chapter Six described three sets of new post-secondary services needed in California. This chapter identifies feasible alternatives for implementing each of them.

The politics of California higher education being what they are, there will be fewer objections about needs and goals than about how to and especially who will implement the new services. This chapter gives cost estimates, including estimated state subventions, for each sponsorship alternative. It offers a recommended model, and concludes with a strategy for planning and implementation of the new services.

First, it is appropriate to set forth nine assumptions that have guided the analysis in this chapter and the concluding recommendation. Several of the assumptions derive from a basic commitment to the interests of individual learners as against the interests of established agencies and institutions. Several others reflect a commitment to the principle of localism in contrast to centralized direction and control.

**Basic Assumptions**

1. The ultimate purpose of the new services is to aid in the full human development—the self actualization—of individuals and, in consequence, the development and actualization of the state as a social order. The various services, singly or in combination, should assist individuals to realize their total human potential.

2. All the services should be available to all adults, although there should be some effort to attract persons who have not heretofore been well-served by the state's education system.
3. State funding should be substantial. Fees to users should generally be low and, for most services, should be based in part on ability to pay. The general fee policy should be age-neutral. Costs for the information and counseling services should be borne largely by the state; fees for the individualized learning program should be comparable to University of California fees for matriculated on-campus students; costs of the validation services should be borne largely by the users.

4. The services should be highly flexible in their operation—responsive to the unique needs and learning styles of individuals, and to the economic opportunities of specific communities and regions. They should be capable of rapid change as the economic and cultural character of localities changes.

5. The services should be organized at community, regional, and state levels. The bulk of the work—the direct contact with potential learners—should take place at community or neighborhood centers. Planning, coordination, and information processing can occur at the regional level. General policy formation, fiscal planning, and system accountability should be responsibilities of a state-level unit.

6. All three levels—community, region, and state—close working relations should be maintained with other educational, cultural, human service, and industrial organizations in order to facilitate individual development through as many public and private resources as appropriate.

7. Planning and operations should be community-based to the greatest extent feasible—consistent with

The case for regionalism needs to be made. From the standpoint of individuals, regionalism is becoming increasingly comprehensible, particularly in metropolitan regions because of transportation and mass-media innovations. People are aware that they can participate in activities outside their immediate communities. They can thus conceive of enrolling at an institution somewhere in the region, or simultaneously at several institutions at different places in the region.

These considerations, plus the fact that a given
program effectiveness and accountability. Citizen/consumer advisory groups should participate in all planning stages, and in various of the ongoing operations at all three organizational levels.

8. All units should be housed in existing facilities, such as community centers, libraries, churches, schools, museums, and the like. While substantial renovation may be necessary at particular sites, no new buildings should be constructed.

9. All the new activities should be fully open to public scrutiny. Evaluation and accountability arrangements should be regularized and institutionalized. Requests for any and all kinds of information about program operations should be complied with promptly and fully.

These assumptions apply to each of the three new groups of services recommended in Chapter Six—the information and counseling service, the individualized learning program, and the learning validation service—as well as to the possible combination of all three services into one comprehensive adult learning service.

Chart two on the next page lists these three services and the combined "Comprehensive Adult Learning Service" down the left-hand side. The state has the option of implementing any of these services in different ways, and the three columns of the matrix list three possible types of sponsorship for them:

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region—the San Francisco Bay Area, for example—has its own configuration of economic, cultural, political, ethnic, and related factors, lead to the conclusion that the region, rather than the town or the state, should be the primary level for program planning and coordination. The objective is effective utilization of all available resources in the region to meet the unique configuration of educational needs existing in the region (cf. Peterson, 1973b). Costly resources could be shared, rather than duplicated. Articulation (transfer of students) among institutions could be facilitated. These and other day-to-day problems and tensions can arguably be more satisfactorily resolved at the regional than at the statewide level.
### CHART TWO

**Sponsorship Alternatives for Recommended Services**

<table>
<thead>
<tr>
<th>Sponsorship Alternatives</th>
<th>A. Existing Organization Approach</th>
<th>B. Cooperative Approach</th>
<th>C. New Organization Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information and</td>
<td>The State Library</td>
<td>Coordinated Agencies</td>
<td>A New Independent</td>
</tr>
<tr>
<td>Counseling Service</td>
<td>(Model 1A)</td>
<td>(Model 1B)</td>
<td>Organization (Model 1C)</td>
</tr>
<tr>
<td><strong>Two:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individualized</td>
<td>The Consortium, CSUC</td>
<td>A New Multi-</td>
<td>A New Independent</td>
</tr>
<tr>
<td>Learning Program</td>
<td>(Model 2A)</td>
<td>Segment Institution</td>
<td>Institution (Model 2C)</td>
</tr>
<tr>
<td><strong>Three:</strong></td>
<td></td>
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</tr>
<tr>
<td>Learning</td>
<td>The Consortium, CSUC</td>
<td>A New Multi-</td>
<td>A New Independent</td>
</tr>
<tr>
<td>Validation Service</td>
<td>(Model 3A)</td>
<td>Segment Institution</td>
<td>Institution (Model 3C)</td>
</tr>
<tr>
<td><strong>Four:</strong></td>
<td></td>
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</tr>
<tr>
<td>Comprehensive</td>
<td>The State Library and</td>
<td>Coordinated Agencies</td>
<td>A New Independent</td>
</tr>
<tr>
<td>Adult Learning</td>
<td>the Consortium, CSUC</td>
<td>and a New Multi-</td>
<td>and Comprehensive</td>
</tr>
<tr>
<td>Service (combination</td>
<td>(Model 4A)</td>
<td>Segment Institution</td>
<td>Institution (“California</td>
</tr>
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<td>of other three)</td>
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<td>Open College”)</td>
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</tbody>
</table>
1. Operation by an existing state agency or educational institution—the "existing organization" approach;

2. Operation by a combination or consortium of several agencies or institutions—the "cooperative" approach; and

3. Operation by a specially-designed agency or institution created afresh to provide the service—the "new organization" approach.

In each of the 12 cells of the matrix a feasible sponsor is indicated. The following sections of this chapter discuss advantages and disadvantages of these possible sponsorship alternatives for each of the proposed services in light of the goals of each service.

One: Information and Counseling Service

Operation

As indicated in Chapter Six, the general purpose for this group of services, provided at community Educational Services Centers, is to help individuals clarify their career goals and educational plans and then locate places where they can learn what they have determined they want to learn.

The specific functions to be performed include those described in the previous chapter:

1. Information and referral regarding learning opportunities in the area;

2. Assessment of interests and competencies;

3. Counseling and career planning; and

4. Aid to individuals in coping with institutions.
As this service has been conceived, its brokerage activities, by which potential learners and appropriate learning resources are brought together, should not be limited to traditional academic endeavors, but should assist individuals to become aware of their full potential and of ways of actualizing this potential.*

To be useful, this service must be accessible—close to where potential learners live, provided in a place that is comfortable for them, and low in cost. Thus there will need to be many locations; typically they should be carefully located to serve demographically-defined cultural subgroups.

Most staff members would be called counselors; they would be selected for their ability to communicate effectively with the people in the community, and they would be given appropriate training. Information would be provided by telephone, mail, or face-to-face. Fees for services would depend on the number and extent of services used (particularly counselor time); they would generally be low, and, using some kind of financial aid mechanism, should be based to some extent on ability to pay. Finally, there would be extensive community participation in planning and operating the local centers. Community people, for example, would be heavily involved in choosing the site for the center, and standing community advisory groups would provide continuous oversight of the center's operations.

Each community center would be connected to a regional office. The regional office would have several functions in addition to planning, coordination and other activities customarily associated with an administrative center. Most important, it would maintain or contract for a central computerized information storage facility, which would be connected to terminals in each of the community centers for immediate access to information and for timely

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*The authors of our background report on non-instructional services (Hodgkinson and Shear, 1975) suggest the title "Personal Development Center" for the unit providing this service.
updating of the regional files. Program evaluation and other accountability activities, as well as in-service training of staff, would be other important regional office activities.

A statewide governing board (all of whom would be lay citizens) and an administrative office would be responsible for broad policy, statewide planning, and accountability work vis-a-vis the California Postsecondary Education Commission and the Legislature.

Sponsorship

A key factor in determining the sponsorship for the information and counseling service is that it ought not to be run by any of the existing higher education systems in the state. It is widely agreed that, in the present environment of intense competition for students among the segments, counseling and information units attached to one or another segment would rapidly become recruiting agencies for that segment.

Numerous sponsorship arrangements nonetheless are conceivable. Using an "existing organization" approach, the responsible state organization could be the California Postsecondary Education Commission or possibly the Division of Libraries, the Employment Development Department, or the Department of Consumer Affairs. Using a "cooperative" approach, it is conceivable that an inter-departmental arrangement of all the interested agencies could be formed. Or, finally, a wholly new organization could be created that would report through the Postsecondary Education Commission in the manner of the other California higher education segments.

Existing Organization Approach: The State Library (Model IIA). The State Library (the Division of Libraries in the State Department of Education) could be allocated funds with a mandate to implement information and counseling units in selected libraries and branch libraries throughout the state. Each designated library would be linked to a regional information storage facility. Selected library staff would be trained as information and referral specialists. Trained counselors
would be added to library staffs. Where necessary, renovations to provide the required office space would be made.

This library function is by no means original with this report. A movement is developing throughout the country for libraries to become community information and referral centers. Nationally, the Houston and Detroit libraries have led the way. Detroit's TIP service ("The Information Place") is receiving 100,000 calls a year, and inquiries about educational and cultural services are among the three most numerous it receives, exceeded only by those about consumer protection and legal aid.

The public libraries in California are neutral turf vis-a-vis the existing colleges and universities. Essentially locally funded and controlled, the libraries could be expected to be responsive to community interests in planning and operating the new services. Finally, in the State Library there are staff who, working with the staff of the Postsecondary Education Commission could plan and manage the new services statewide.*

Perhaps the major liability of the public libraries would be their traditional image as places for the bookish middle classes. Another problem lies in their tradition of local autonomy. The State Library could not mandate the use of a particular library as an Educational Services Center. Many local libraries would accept the new role (and the new funds), but some might not.

Another possible sponsor is the California Postsecondary Education Commission, and a proposal for it to establish Community Advisement Centers pursuant to ACR 159 has been prepared by its staff (Deegan and Maynard, 1975). The chief difficulty with this

*This collaboration would be both necessary—in order for information on local educational resources to be compatible with the Commission's management information system—and desirable—in that CPEC has substantial staff expertise regarding the structure and functioning of advisement centers.
alternative lies in the inappropriateness of CPEC as a planning and coordinating body to operate its own line programs. Thus for the "existing organization" approach, the libraries seem more feasible.

Total costs for the third full year of statewide implementation of a library-based information and counseling service is estimated to be approximately $3.3 million, as indicated in the Appendix. State subvention of approximately $2.9 million would be required, with the balance ($400,000) coming from users fees.

Cooperative Approach: Coordinated Agencies (Model III). A second sponsorship alternative at the state level would be to have a consortium of existing agencies, such as the State Library, the Employment Department, and the Department of Consumer Affairs sponsor the Centers. At the local level, a case can be made for a coordinated approach, through regional consortia that would make use of networks of individuals and groups already working in the field.* For example, computer terminals in Los Angeles (connected to a regional data bank) might be placed in a number of the some 70 existing counseling agencies, and staff in each one trained to provide the information and counseling services as described. But while there would undoubtedly be economies from the use of existing resources, there would be at least three important disadvantages to a consortium arrangement of this sort. First, many of these agencies are funded with "soft money," often on a temporary or year-to-year basis, and their continuing existence is not guaranteed. Second, with reliance on a variety of existing units, it would be difficult to ensure coordination, accountability, and uniformity of procedures, for example, in gathering local postsecondary data that could be used

*Department of Rehabilitation units, Veterans Administration offices, Talent Search programs, women's re-entry programs, high school and community college counseling staffs, centers for the aged, community action agencies, centers sponsored by local government, and many more.
in the state-wide postsecondary information system presently being designed by the CPEC. Third, since most of these agencies are already identified with a particular clientele or set of services (e.g., library users or persons seeking employment), they may have difficulty working with each other as consortium members and may continue to neglect individuals who fall outside one of these already defined client groups.

Funding for this model would probably need to be somewhat higher than for the library model because of the costs of coordination.

New Organization Approach: A New Independent Organization. (Model 1C). The third alternative is to create an entirely new organization which would have responsibility for operating the information and counseling service, possibly along with the other proposed new services. A state-level governing board would establish broad guidelines for the local Educational Services Centers and the regional offices. Some of the centers would be established de novo in libraries, churches, community agencies, and other locations; others could be existing units invited on the advice of local citizen groups to become part of the new state organization.

The experimental advisement centers in other states that were described earlier—in Hartford, New York City, Providence, and Syracuse—have all been essentially independent organizations. Organized separately from other agencies or institutions, yet working cooperatively with area colleges and universities, these agencies, usually funded from federal sources, have been generally successful in meeting their stated objectives.

A similarly independent organization could be created fresh in California; it would have no attitudinal or procedural traditions to accommodate to. Its specially-recruited and trained staff would be totally committed to program objectives. Planned and operated on the basis of the assumptions spelled out at the beginning of this chapter, it could be
expected to be capable of flexible response to the full range of developmental needs of adults in the community.

Compared to the library-based model, this independent model would be somewhat more expensive, with costs for the third full year of statewide operation estimated to be about $3.8 million, including a state subvention estimated at $3.4 million and $400,000 in user fees.

Two: Individualized Learning Program

Operation

This program would meet the needs of individuals who wish to work for a college degree but who, for whatever reasons, find it difficult to attend regularly scheduled classes, have atypical learning interests not readily accommodated by conventional curricula, and are capable of an essentially self-guided approach to their learning. Three key elements of the program have already been outlined: (1) content flexibility, whereby the student and an advisor develop a program of learning that satisfies the student's unique educational interests; (2) learning method flexibility, with the student using all manner of available collegiate and community resources according to a schedule convenient to him; and (3) degree credit for prior learning, with the student receiving advanced standing on the basis of a variety of past learning experiences.

The program would make extensive use of individual learning contracts. After identifying the student's learning goals and assessing the nature and extent of his prior learning, the student and his advisor would negotiate a series of learning contracts for various learning activities to be completed in specified periods of time in order to fulfill the remaining work for the degree.

Students would meet at their convenience, both as to time and place, with their advisors. A decentralized system of neighborhood or community centers would be the ideal. Advisors and other staff could also travel to other locations--libraries, museums, etc.--to meet with individuals and small groups.
The program would have no scheduled classes as such. Students would meet with their advisors as needed to plan and review progress toward agreed-on objectives, and they would be encouraged to enroll at nearby colleges if appropriate courses were available.

Advisors would be academic generalists. They would be hired on the basis of demonstrated capacity to work productively with older persons on an individual basis. Staffing patterns would depend on the learning interests and goals of students. Rather than tenure, advisors would be given one-year and then renewable three-year contracts.

Students would generally be older, capable of self-guidance, and with learning goals reasonably well in mind. Conceivably they could be recommended for the program by a counselor after counseling and assessment at an Educational Services Center. Many already would have had extensive college work.

When the student neared the end of his degree plan, he would undergo an independent assessment, as discussed in the next section, which, if passed, would qualify him for the degree. The instruction and evaluation functions, thus, are separate. The advisor/instructor and his students are genuine learning colleagues.

There would need to be regional offices and a state-level governing body for the reasons described earlier. In particular, the regional office would be responsible for arranging the final assessment of students prior to granting degrees.

The individualized learning program would start small and expand slowly until the market demand is being met. After two years of statewide operation, enrollment might be 500. After five years, it might be 2,500. Student fees for the program would be comparable to University of California full-time fees—about $200 per quarter.

Sponsorship

At least three sponsorship alternatives are feasible.
Existing Organizational Approach: The Consortium of the California State University and Colleges (Model 2A). As indicated in Chapter Six, the closest existing public program in California to a truly individualized, off-campus program is the Consortium--The 1,000 Mile Campus--of the California State University and Colleges. Two of its six present programs are learner-centered in the sense of use of learning contracts (the other four follow prescribed curricula); several new programs to be initiated in 1975-76 will reportedly use "individual study modes." In operation since the fall of 1973, the Consortium has the advantage (and disadvantage) of an established modus operandi; relatively little new planning would be needed. It would also have the legitimacy afforded by association with an established segment of California higher education. (The Consortium is presently in the final stages of regional accreditation).

Under the Consortium model, there would be no need to recruit a totally separate faculty. Most would come from campuses in the system, combining teaching at their home campus with advising Consortium students.

Conceivably the Consortium could become the twentieth "campus" of the CSUC system--even though it would have no separate campus of its own and only a small full-time faculty. Its director could become a member of the system's Council of Presidents, comparable to those of the other 19, and might well be designated its president.

The CSUC Consortium, in summary, could be given a substantial increase in funding--including funds so that fees are the same as campus-based fees--and a mandate to move the program more in the directions suggested--individualized content and learning method (including use of non-CSUC resources), regionalization of some activities, use of citizen/consumer advisory groups, and so forth.

An important difficulty with the Consortium alternative is that it would not be able to award the two-year associate degree. (Under the terms of the 1960 Master Plan, the CSUC system is not allowed to grant AA degrees.) This need not necessarily be a fatal flaw; the proposed program could be limited to upper division and masters-level work. The experience at Empire State
College, for example, is that (1) few enrollees are interested only in the associate degree, and (2) that most, on the basis of assessed prior learning, are granted at least two years of advanced standing. And Minnesota Metropolitan State College is exclusively an upper division institution.

The total costs for the third full year of statewide implementation of a modified and expanded CSUC Consortium is estimated to be approximately $5.9 million. The required state subvention would amount to $5.2 million, with the balance coming in the form of student fees ($700,000).

Cooperative Approach: A New Multi-Segment Institution (Model 2B). A second possibility for operating the individualized learning program would be to create a cooperative multi-segment degree-granting institution. This alternative would use faculty and other resources from all the existing colleges and universities in the state, public and private. As such, it would be a more or less explicit mechanism for shifting faculty and other resources from traditional and residential instruction to non-traditional (adult and part-time) and substantial off-campus instruction, as the decline in the 18-21 college-age population sets in in the 1980s.

As many as 200 campuses and their off-campus sites could be the locations for meetings between advisors and students--individually and in small groups. CSU or UC professors working with BA- or MA-level students would travel to community colleges when necessary. Professors would circuit-ride in sparsely populated areas. Students could enroll in any convenient college or university offering the needed courses, and advisors could organize other special seminars as needed.

Faculty would come from the existing campuses where they would retain their rank and tenure (and office) while working part-time for both institutions. Most likely they would receive two pay checks (although some form of home campus reimbursement arrangement is conceivable). Ideally, they would volunteer to participate motivated by their own desire for and ability to work in nontraditional settings.
Organizationally, there should be regional administrative centers, perhaps eight of them, as well as a statewide governing board and small staff. The regional offices would handle admissions, registration, assignment to advisors, staff training, accountability work, and so forth. They would be housed at a campus centrally located in each region—possibly one that has "over-built" and has available space.

The statewide board might consist of nine members, including representatives from the governing boards of each of the three public segments, a representative from the independent sector, and five lay members (from which the chairman would be elected) appointed by the governor. Because of their constitutional independence, the University Regents could not be required by statute to contribute a member. The Board and its staff would be expected to work out basic educational policy questions, such as degree requirements (e.g., the nature of "core" proficiencies) and how they are to be assessed.

The very great advantage of this cooperative, multi-segment model would be its presumed access to an exceedingly large range of faculty and other resources—literally all the accredited colleges and universities in the state.

Ironically, its fundamental disadvantage stems from this very fact. Given the range of traditions and "standards", as well as the resources, that characterize the segments, it will be no easy matter for them to reach agreement on many policy issues—degree requirements, admissions requirements, faculty work loads and pay schedules, the facilities from which segments and campuses to use, and the like. As the work of the new institution evolves to meet changing educational needs, its governing board would undoubtedly be heavily involved in arbitrating tradeoffs among the segments (and perhaps among the campuses) in determining which of the available resources to utilize.

Finally, it is not hard to imagine that the program would remain peripheral to all the segments, rather than becoming high priority for any of them, and that, as with other joint programs, everyone's responsibility would be no one's obligation.
The total costs for the third full year of statewide implementation of an individualized learning program operated by a cooperative multi-segmental institution are estimated at $5.9 million with state subvention of $4.8 million and student fees of $1.1 million.

New Organization Approach: A New Independent Institution (Model 2C). A new public college, independent of the existing segments, could be established especially to operate the individualized learning program. It would be designed and implemented more or less explicitly according to the assumptions given at the beginning of this chapter, and conducted as described on pages 121 and 122.

The new institution would have a statewide governing board, as well as small statewide and regional staffs. In this model, the prime commitment of the faculty (advisors) would be to the new institution—though they might be employed there either part- or full-time. Many would be recruited from local area colleges, since in their capacity as advisors they would need to be knowledgeable about all the learning resources in the region. The bulk of their work—direct contact with students—would take place in community or neighborhood centers located in libraries, museums, churches, elementary or secondary schools, and the like.

Of the three sponsorship options, an independent institution would most likely offer the state the best opportunities for individualized programs unbound by academic traditions. Its governing board, faculty, and administrative staff would be devoted to its unique purposes alone; it would have the greatest flexibility to meet new needs.

The costs, however, for what is arguably the ideal, would not be small. Total cost for the third full year of statewide implementation of an individualized learning program operated by a new independent institution is estimated at $7.0 million. State subvention would be $5.2 million. Student fees would be $1.8 million.
Three: Learning Validation Service

Operation

The proposed validation service would enable California residents to obtain academic recognition for college-level knowledge and skills, regardless of how or where they are acquired. Empowered to grant associate, bachelor's, and master's degrees, it would offer the four services identified in Chapter Six: the two substantive ones of (1) awarding degree credit for prior learning, and (2) granting degrees for demonstration of requisite knowledge and skills; and the two relatively routine ones of (3) operating a credit bank of degree-credit work accumulated from various sources, and (4) compiling resumes of all career-relevant experiences (whether for credit or not) that the applicant wishes recorded.

The procedures for degree assessment must have credibility. Perhaps the most widely followed practice is to make use of certified academic professionals (e.g., from nearby colleges) in the assessment process. In addition to reviewing the work the student has done towards his degree, at least two general evaluation approaches are conceivable: (1) a senior thesis or other project, and (2) senior comprehensives (oral, essay, objective examinations); all would be prepared and graded by local area professors following guidelines established by a statewide unit. Perhaps requiring six hours all told, the examinations, if failed, could be repeated after additional study.

Again, both community or neighborhood centers and a regional office are desirable. The community center would be the point of contact between the learner and the institution. Degree-oriented students would submit transcripts and other evidence of prior learning to neighborhood center staff; actual credit-award judgments would be made under the direction of regional office staff. Credit bank activities would occur at the regional office, though they would be initiated and the "statements" updated automatically from the community center. Individuals using the resume service would submit materials at the community center; creation and maintenance of the miniaturized file would be accomplished at the regional office.
Final assessment of degree candidates would be the responsibility of the regional office. Some candidates will have pursued their studies entirely on their own, and a community center counselor would inform the regional office when such candidates are ready to sit for degree examinations. For candidates involved in the individualized learning program, the decision to take the exams would be made jointly by the student and his advisor. Regional office staff would arrange for faculty committees to conduct oral examinations and to grade senior theses and essay examinations, and regional office staff would administer objective examinations.

The state board for this service would have important functions of an educational policy nature, in addition to the fiscal and other administrative responsibilities already mentioned. As the policy headquarters for the validation activities, the state unit would have the ultimate responsibility for articulating what its degrees are to mean—what knowledge, skills, competencies, or whatever, are to be associated with the degree awarded. Soon after being established, it would need to define—in a highly responsible and resourceful manner, drawing on a host of interested parties including citizen/consumers, academic professionals, legislators, philosophers—the meaning of a core general learning component of its associate and bachelor's degrees. It would also have the responsibility, drawing on a somewhat narrower range of interests, for defining the general nature of the concentration component for the specialized degrees—or for concluding that the degree plans followed by most candidates will be so idiosyncratic that major field definitions are unnecessary and/or unrealistic.*

*In addition to conceptualizing the meaning of its degrees the state unit would also have responsibility for operationalizing its degree definitions. That is, it would set general guidelines for the degree examinations that are to be used in the regional offices. Objective examinations could be developed according to specifications determined in the state office. Required of all candidates as part of the degree assessment, and scored in the state office, the objective tests would be mechanism for program evaluation and for maintaining quality control among degree recipients throughout the state. After calibration on samples of students (sophomores, seniors, second-year graduate students) in the
Compared to the other two services, a larger share of the costs of the validation services would be charged directly to the users themselves.

**Sponsorship**

The same three sponsorship alternatives suggested for the individualized learning program would also be applicable for the validation service: the CSUC Consortium, a new multi-segment institution, and a new independent institution.

**Existing Organization Approach: The Consortium of the California State University and Colleges (Model 3A).**

The Consortium, again, is clearly a possibility. In addition to having an instructional role, it was also mandated to explore development of various types of the services included here under the validation service. While no such services have as yet been implemented by the Consortium—reportedly for lack of funds—there have been substantial development efforts, mostly at the level of proposal-writing. Interest and expertise on the Consortium staff regarding the various validation activities is unmistakable.

A proposal has been prepared and submitted for private funding for: (1) creating a procedure for "the assessment of delineated competencies" using oral examinations; (2) developing a "model for reviewing noncollegetate-sponsored instruction;" and (3) in connection with the latter, "development of the first stages of a statewide credit bank."

Specifically, the Consortium was authorized to establish an "educational records service" and/or an "academic credit bank." Though neither have been initiated, a plan has been developed for an "educational registry" which would contain any relevant information the individual wants included, as well as a record of any experiences that have been "translated" into degree credit.

Other higher education segments in the state, these tests could also be a mechanism for insuring institutional quality in the sense of degree standards comparable to those at other colleges in the state.
With regard to crediting prior learning, the Consortium has: (1) developed a series of tests in business administration through which up to 30 units of credit may be received; (2) proposed development (in the aforementioned proposal), in part on the basis of visits to several nontraditional colleges, of an assessment-of-prior-learning approach that uses oral examinations by faculty panels; and (3) approached the American Council on Education's Commission on Educational Credit regarding participation in its nationwide effort to establish academic credit equivalencies for courses taught in non-collegiate settings.

Finally, the Consortium was authorized to grant its own degrees, and will begin doing so in 1975-76 when a total of eight Consortium-degree programs are expected to be in operation.

The total costs for the third full-year implementation of a CSUC Consortium-based validation of learning service is estimated at $2.9 million with state subvention of $1.6 million and user fees of $1.3 million.

Cooperative Approach: A New Multi-Segment Institution (Model 3B). The same new cooperative intersegmental institution, in addition to responsibility for an individualized learning program, could have responsibility for the various proposed validation functions as well.

Perhaps the most workable arrangement would be for one campus in each of eight regions to be designated as the administrative base for all the new institution's validation activities in the region--most obviously, the same campus that administers the individualized learning program. All the campuses, and perhaps even campus outreach sites, could be entry points to the institution's validation apparatus--the place, for example, where portfolios are submitted for evaluation for degree credit.

The regional administrative center would actually perform the several validation services, including: (1) determination of amount of degree credit for prior learning experiences; (2) maintenance of a credit bank; (3) assessment for degree receipt (using various of the methods suggested on page 127); (4) granting of degrees; and (5) production of life experience resumes.
The statewide board, in addition to establishing degree requirements, would promulgate procedural guidelines for the various services—to insure good practice, substantial uniformity of practice (e.g., for purposes of accountability reporting, and to enable student geographical mobility), and control on the quality of degrees conferred. These will be no mean tasks for a body comprised of representatives of higher education systems that in the past have not always found it easy to agree.

The total costs for the third full year of statewide implementation of a validation of learning service operated through a new multi-segment institution is estimated at $3.1 million with state subvention of $1.8 million and user fees of $1.3 million.

New Organizational Approach: A New Independent Institution (Model 3C). As with the other services, a separate new public institution could also take responsibility for the validation service, as outlined on pages 127 and 128.

Estimated total costs in the third year will approximate $3.3 million with state subvention of $2.0 million and user fees of $1.3 million.

Four: Comprehensive Adult Learning Service Operation

This fourth model is simply the first three models combined. It would bring together into either one or two institutions all the new services that have been proposed—the information and counseling service, the individualized learning program, and the validation service.

With regard to organizational considerations, little more can be said beyond what was proposed in describing the first three models. In general, most of the substantive work would be done at the community
level in libraries and other community organizations; planning, coordination, information storage, and staff training would occur at the regional offices; and broad policy and procedural guidelines would be established at the state level.

Sponsorship

Likewise, the three sponsorship alternatives for the Comprehensive Service are by now evident; they result in each instance from combining the models under each sponsorship approach—that is, by reading down the three columns in Chart Two given earlier in this chapter.

Existing Organization Approach: State Library and Consortium, CSUC (Model 4A). The State Library would be responsible for the information and counseling service. CSUC's Consortium would be responsible for the individualized learning program and the validation service. Estimated total costs (third full year of statewide implementation) would be $11.6 million, state subvention $9.3 million, and user fees $2.3 million.

Cooperative Approach: Coordinated Agencies and New Multi-Segment Institution (Model 4B). An association of state human service agencies would be responsible for information and counseling, and a new cooperative inter-segmental institution would assume responsibility for the individualized learning and validation programs. The new institution, which would in effect be a new segment, might be called the California Cooperative College. Estimated total costs will be $11.8 million with state subvention of $9.1 million and user fees of $2.7 million.

New Organization Approach: A New Comprehensive Independent Institution (Model 4C). According to this model, all the proposed new services would be the responsibility of a separate new public institution. Organized as shown in Chart Three, it would also be a new segment which might be called the California Open College. By the third year, its estimated total costs would be $12.8 million with state subvention of $9.3 million and user fees of $3.5 million.
CHART THREE

Comprehensive Adult Learning Services Model:
Organization by Level and General Function

Governing Board

STATE LEVEL

President

Administrative Staff

<table>
<thead>
<tr>
<th>Information and Counseling</th>
<th>Individualized Learning Program</th>
<th>Validation</th>
<th>Fiscal Planning</th>
<th>Evaluation and Accountability</th>
<th>Other</th>
</tr>
</thead>
</table>

Citizen Advisory Bodies (for each function)

REGIONAL OFFICE

Dean

Administrative Staff

<table>
<thead>
<tr>
<th>Information and Counseling</th>
<th>Individualized Learning Program</th>
<th>Validation</th>
<th>Planning, Coordination</th>
<th>Fiscal Accountability</th>
<th>Evaluation, Staff Training</th>
</tr>
</thead>
</table>

Citizen Advisory Bodies

COMMUNITY CENTER

("EDUCATIONAL SERVICES CENTER")

Director

Administrative Staff

<table>
<thead>
<tr>
<th>Information and Counseling</th>
<th>Individualized Learning Program</th>
<th>Validation</th>
<th>Evaluation and Accountability</th>
</tr>
</thead>
</table>

Citizen Advisory Bodies

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The Recommended Model

Thus far, this chapter has delineated four sets of adult learning services and three alternative sponsorship arrangements for each service.

All twelve sponsorship alternatives are regarded as feasible policy options. Nearly all could be adopted singly or in combination. However, the individualized learning program as it has been conceived without an assessment or validation component should not be adopted by itself. It should be adopted in combination with the validation service, or it could be reconceived as more like a conventional college with its own degree-granting authority.

Earlier in this chapter, cost figures were given for each sponsorship alternative, based on the analysis presented in the Appendix. While it is incumbent to present cost data in a feasibility study such as this to assist the Legislature in its deliberations, and while cost will be a key factor in the Legislature's decision, it should not be the most critical consideration in this report. Likewise, political acceptability to the state's higher education establishment can not be a determining consideration in its recommendations. The essential tasks of the feasibility study were to identify postsecondary learning needs and then to suggest new programs and services as well as institutional reforms judged most capable of meeting those needs.

Chapter Six concluded that the three new activities included in the Comprehensive Adult Learning Service model should be implemented. Based on the basic assumptions regarding the operation of these new services, the analysis of barriers to meeting the needs in Chapter Four, the experience of other states, and the judgments of several authors who have studied the relevant issues in detail, either nationally or in California, the most appropriate sponsorship alternative for these services is a new independent institution (Model 4C in the matrix on page 114 above). Without a tradition of attitudes and practices, and with a staff wholly committed to the new forms of postsecondary learning set forth in this report, it offers the greatest potential for providing student-centered services in the interests of the individual learner's full human development, responding to...
the unique learning needs of individuals and to locally changing economic and cultural factors, operating on a regional basis (as well as on community and statewide levels) for the most efficient utilization of regional resources toward meeting regional educational needs, working cooperatively with noncollegiate organizations and agencies in local areas, utilizing community/consumer advice in the planning and operation of the services, and developing effective and open evaluation and accountability procedures.

Of all the barriers considered in Chapter Four, the attitudinal or dispositional ones are probably the most critical in preferring a new independent institution over existing ones. Institutional policies and practices are seldom maintained in the absence of attitudinal support and in the context of the dispositional barriers charted on page 65, a new independent institutional would have the greatest potential for providing an environment in which new and returning learners will not feel intimidated; for minimizing traditional faculty and administrator attitudes about nontraditional programs; and for accommodating, through newly designed quality control and accountability measures, existing concerns in state government circles about state support for educational opportunities for older citizens.

Other states offering the new types of educational services proposed here usually operate them as independent organizations. Almost all of the recently established information and counseling services operate independently of the higher education systems in their respective states; the most successful individualized learning programs operate as separate institutions: within larger systems (Empire State is a separate college within the State University of New York system and Minnesota Metropolitan is the seventh separate unit in the Minnesota State College system); and the two best known examples of the "alternative approach (The New York Regents External Degree Program and Thomas Edison College in New Jersey) operate independently though cooperatively with the colleges and universities in their respective states."

*The one example of a cooperative program, somewhat comparable to the multi-segment alternative described earlier, is the External Degree Program of the Florida
In the past year, Leland Medsker and his colleagues, at the Center for Research and Development in Higher Education have completed a detailed study of 16 extended degree programs throughout the country (Medsker, et al., 1975). In discussing organizational options in the context of multi-campus systems, they outline the following advantages and disadvantages in "establishing separate institutions" (pp. 352-354):

Advantages:

1. New institutions are not hindered by the forces of traditionalism and conservatism which characterize established institutions.

2. New institutions may recruit new personnel to accommodate program objectives and thus are more able to innovate.

3. New institutions may design their own administrative support services to facilitate program objectives. They are also more likely and more able to control resource allocations made in their behalf, as well as to establish a faculty reward system conducive to the success of their mission.

4. In certain situations, the existence of a separate institution may more likely exert change on other institutions because the new institution, being on the forefront of change, creates a tension between itself and the rest of the system. This situation has the potential for inducing other units in the system to follow an example.

---

State University System (administered by Florida International University). It has experienced some of the difficulties discussed earlier regarding the multi-segment alternative. For example, according to one report, "specializing in business had not been possible in Florida International's individualized EDP (External Degree Program) because the university's school of Business and Organizational Sciences had not agreed to participate in the program" (Medsker, et al., 1975, p. 67).
Disadvantages:

1. New institutions tend to have difficulties in adequately defining and establishing role and status hierarchies for new types of personnel. This creates a strong pull toward traditionalism and toward standardization of the learning process.

2. Separate institutions tend to be viewed with suspicion and sometimes with envy by other institutions in the system, thus making it difficult for them to function effectively as members of the system. This may particularly affect their mandate to deliver services regionally over a state.

3. A counter-argument to #4, above, is that new institutions, being somewhat removed from the rest of the system, are handicapped in exerting change within individual institutions through the process of infiltration. Which of the two arguments has the greater validity probably depends upon the rigidity of, and the constraints within, the system or institution in question.

They go on to say (p. 354):

Certain models for delivering external degrees are more likely than others to depend upon separate structures for their success. This is especially true of the individualized approach (contract method, emphasis on credit for prior learning, etc.) which requires freedom to operate outside the influence of the traditional academic structure.

Multi-campus systems considering the establishment of a new institution for extended degree study should determine the feasibility of a noncampus-based institution. This institutional arrangement consisting of regionalized, geographically dispersed learning centers, units, or satellites is extremely flexible in serving students at convenient locations within the service area. Some prior consideration, however, should be given to the organizational problems involved in the coordination and administration of this regionalized set-up.
Finally, in a broad-ranging report for the Joint Committee on the Master Plan, Warren Bryan Martin suggested, among other "alternative forms," creation of a new College of California where policies and programs would be determined by nonacademic professionals (1972, pp. 8 and 9). Suspicious that "educational professionalism is an enemy of change," he advocated "comprehensive adult education programs...designed and implemented by nonacademic professional leaders from various segments of society" (p. 9). While this analysis may be extreme--innovative, student-centered academic professionals can be found--it is indicative of the pessimism about existing rigidities felt by some close observers of the California higher education scene.* Indeed, the principal general advantage in a new independent institution is that it would have the freedom--even the mandate--to provide new learning opportunities in new, more humane, ways.

The principal flaw in providing the full range of proposed services through a new independent institution is that it combines the information and counseling services and the individualized learning program under the same sponsor, with the consequent danger that the former will become a recruiting agency for the latter and for the external degree option that would be available as part of the validation service. Arguably, this flaw in Model 4C is outweighed by other considerations:

- Its presumed flexibility and freedom from tradition to meet learning needs effectively;

- Its economies of scale from operating all three sets of services under one administrative framework and through the same physical facilities (as discussed in Appendix);

- Its anticipated use--despite its organizational independence--of existing resources such as selected counseling agencies in the community, coursework at existing campuses as part of the individualized learning

*Martin, now vice president of the Danforth Foundation, was provost at Sonoma State College when he wrote his report.
program, and reliance on professors from existing campuses in validation activities;

- Its information and counseling program's ability to stimulate many new enrollees at existing institutions;

- Its likelihood of attracting mainly older students to its individualized learning and external degree programs--students who for the most part would not have opted to attend an existing institution;

- And, compared to the other two sponsorship alternatives for the Comprehensive Adult Learning Service (Models 4A and 4B), its not much greater costs.

In the event the Legislature is persuaded that the information and counseling service should not be combined with the individualized learning and validation programs, our recommended sponsorship pattern then would be the state library to administer the information and counseling service and the new independent institution (for all the reasons outlined) to operate the individualized learning and validation programs--i.e., the combination of Models 1A, 2C, and 3C.

However, taking all considerations into account, the independent comprehensive institution offers the most potential for effectively providing the needed services.

RECOMMENDATION THIRTEEN: To meet the full range of adult learning needs in the state, the Legislature should appropriate development funds to create a Comprehensive Adult Learning Service, consisting of information and counseling services, an individualized learning program, and validation of learning services. These services should be provided under the auspices of a new independent institution.

Funding: Summarized on page 132 and discussed on pp. 184 in the Appendix.
Planning and Implementation

At least three alternative general planning and implementation strategies are conceivable in creating the new services. All three involve a developmental phase in one region of the state, and all assume extensive citizen/consumer participation in all phases and levels of planning.

1. Successive Addition of Services. Under this approach, after an initial planning year, one service would be launched in the selected region. This service should be the one for which the need is greatest. Each succeeding year an additional service would be initiated following a predetermined logic about which services need to precede others. Statewide implementation of each service would follow after a two-year developmental interval. Start-up costs—in the developmental region and statewide—would be spread out over six years.

2. Full-Service Implementation. This strategy would call for a longer planning period—perhaps two years—after which all services, operated out of four Educational Services Centers, would be implemented in the selected developmental region. Full-service implementation throughout the state would occur three years later. But in order to avoid too heavy a state expenditure during the first statewide year, only four Centers in each region would be created initially. Additional Centers would be added during succeeding years.

3. Planning with Limited-Scale Implementation. This is a variation on the second strategy that involves (1) an initial planning year, (2) establishment in the selected region of two Educational Services Centers and a regional office during the second year, and (3) two more Centers during the third year. The assumption underlying this strategy is that effective planning, including "debugging" of original plans, requires actual experience with learners and potential learners on a manageable scale.

The third strategy is the developmental approach proposed here, and the one for which cost data are given in the Appendix. For the three-year developmental phase
for the Comprehensive Model, total costs are estimated to be between $4.2 and $5.3 million, depending on sponsorship alternative.*

As noted, there should be cooperative planning at the state, regional, and community levels. At the outset of the developmental phase, state-level task forces, perhaps one for each set of services, should be organized. They should include, at a minimum, citizen representatives, educational specialists (some brought in from successful nontraditional programs in other states), Department of Finance officials, and representatives from the Western Association of Schools and Colleges (the regional accrediting association for California). Their task would be development of broad policy and general operating guidelines.

A task force in the developmental region, comprised of lay people and educational specialists, would plan the activities of the regional office, and among other matters, determine the general locations of the two initial and two subsequent Educational Services Centers. Community or neighborhood task forces, consisting chiefly of lay residents in the community, would then be constituted to guide initiation of the respective Centers. Community people should have a sense of ownership of their Center for it to be maximally effective.

The region in which the developmental phase is carried out should be selected so that the full range of operational problems may be encountered. Conceivably the San Francisco-Oakland Bay Area (e.g., a 50-mile radius around San Francisco) would be a suitable developmental region. During the second year, one Center could be set up in an urban area, and another in a rural area. Two more Centers, again in different types of communities, would be established during the third year.

*Possibilities for obtaining funds for developmental work from federal agencies and private foundations should be systematically explored. In the past three years, for example, the Fund for the Improvement of Postsecondary Education (FIPSE) has supported numerous programs similar to those recommended in this report. Conceivably, up to half the cost for a three-year developmental project in one region of the state could be funded from such sources.
The following year would be the year for statewide implementation. A cooperative planning process similar to that described above would be repeated during the first half of that year in the other regions of the state. (Our cost analyses have assumed division of the state into eight regions.) Only four Centers should be operated in each region at the outset; each Center would expand to full capacity by the fourth year of statewide implementation. The number of Centers in each region would increase fairly rapidly, so that by 1985-86 there might be an average of ten in each region. Ideally, there should be many community or neighborhood Centers, all relatively small. The goal of decentralization is convenient access and effectiveness of service. Perhaps by 1995, California Open College, organized into eight regions, would be providing information and counseling, individualized learning, and validation of learning services out of some 240 community-based Educational Services Centers.
CHAPTER EIGHT

SUPPORTING IMPROVED INSTITUTIONAL PERFORMANCE

At least four new kinds of services, involving the collection, organization, storage, and dissemination of information, are needed to help colleges and universities—private as well as public—better serve students and potential students in their respective communities:

1. Analyses of postsecondary needs;
2. Clearinghouse of postsecondary programs;
3. Clearinghouse of media resources; and
4. Public information regarding postsecondary programs.

In concept these services are not exciting innovations. All too often they are taken for granted—possibly because of their unquestioned importance—and thus are provided ineffectively. Yet these functions undergird the present activities of institutions as well as the new services proposed in this report.

All of these activities are most appropriately operated at the regional level. As noted in the previous chapter, because of transportation and communication advances, potential students are able to conceive of availing themselves of educational opportunities throughout a given region, e.g., a metropolitan region; and colleges and universities, accordingly, need to plan and coordinate their programs on a regional basis.

While it may be feasible for these four services to be operated by either the cooperative or independent organizations described in the previous chapter, we think it most appropriate that they be responsibilities of the California Postsecondary Education Commission (CPEC). These functions are compatible with the Commission's fundamental roles of planning and coordination, which require good information organized in ways that are useful. The Commission's assumption of these responsibilities would also ensure statewide integration of data.
collected and disseminated regionally. (CPEC may want to consider decentralizing its activities to some extent—possibly through small offices dispersed throughout the state.)

In addition, both the efficiency and effectiveness of these planning functions will be enhanced if they are tied to corresponding functions in other fields such as manpower development or transportation. Most human service planners need similar data, particularly information about demographic factors. Affiliation with local or regional planning bodies, such as city planning departments and regional Councils of Government, would enable economies of scale as well as integration of educational and other types of planning.

**Analyses of Postsecondary Needs**

For institutions and systems of institutions to plan their education programs rationally, they must have good data on the need for those programs.

A regular poll of a sample of citizens in a given region (such as metropolitan Los Angeles) could assay trends in learning plans, motives, desired services, perceived barriers, and preferences regarding program content, teaching methods, and location of offerings. An annual survey of a sample of high school seniors could reveal their vocational and educational plans. Market research about planned educational services could test reactions prior to launching them. And a regular survey of employers could gauge their needs for trained employees.

Numerous market surveys have been conducted in California in recent years—by individual institutions, the segments, and the former Coordinating Council on Higher Education (cf. Hefferlin, Peterson, and Roelfs, 1975). These efforts, including the statewide poll commissioned for the present study, have invariably been one-time efforts. Furthermore, the many studies, such as the needs analyses that many community colleges carry out from time to time, are almost never comparable—rendering them essentially useless for systematic regional or statewide planning.
What is needed is a carefully conceived, comprehensive, on-going postsecondary needs analysis service, planned by CPEC, operated regionally by CPEC, with resulting information shared with colleges and universities in the region, and pooled statewide for use by state-level agencies.

RECOMMENDATION FOURTEEN: The Legislature should appropriate funds to the California Postsecondary Education Commission to operate a regionally-based postsecondary needs analysis service which will provide information to institutions in the region for purposes of regional planning and will be pooled statewide for state-level purposes.

Funding: $1 million annually to the California Postsecondary Education Commission.*

Clearinghouse of Postsecondary Programs

The second service would compile and catalogue information, on a regional basis, about all existing and planned educational resources, including the nature and purpose of program offerings, fees, methods and locations of services, admission requirements, nature of clientele, and the like.

Regularly updated (quarterly or semiannually) reports would be made available not only to postsecondary institutions (public and private) and state agencies for planning purposes, but also to the information and counseling units proposed in Chapters Six and Seven, as well as to other human service agencies in the area. Institutions would use the information to coordinate their planning to avoid unnecessary duplication. Such a clearinghouse should also facilitate sharing of experiences among project staff of similar programs toward improving their respective programs.

*Cost figures given in this chapter are not based on detailed analysis. They are judgments of the general order of magnitude of funding that would be required for each activity.
State agencies already gather some of this information from schools, colleges and universities, and a high priority of the California Postsecondary Education commission is to improve the quality of the information it collects. While improvements are needed in data gathering techniques, an even greater need is for improved means of distributing the information to postsecondary institutions, community agencies, and various individuals in the respective regions who could benefit from it.

RECOMMENDATION FIFTEEN: The Legislature should appropriate funds to the California Postsecondary Education Commission to operate a network of regional postsecondary program clearinghouses designed to facilitate institutional planning, program improvement, and advising of potential learners by a variety of agencies.

Funding: $500,000 annually to CPEC (to add regional clearinghouses to its management information system presently under development).

Clearinghouse of Media Resources

With increasing use of electronic technology in education there is a need for centralized sources of information on all the instructional equipment and products available in the respective regions and throughout the state. As Clark and Rubin (1975) indicate, most of the colleges and universities in the state possess varying amounts of equipment ("hardware") for producing and distributing courses—by radio, television, computer, audiotape, and film, as well as print media. And the various institutions and groups (consortia) of institutions have produced a great variety of courses, course sequences, and programs for computerized instruction ("courseware," "software"). Yet, as Clark and Rubin stress, few people know what exists in the respective regions, the state, and throughout the country. They note that even within most institutions, no single per-
son or office knows all the media production equipment spread around the campus in various departments, laboratories, and other facilities. New equipment, therefore is needlessly purchased, and software and courseware "wheels" are continually re-invented.

There needs to be media resource expertise in the California Postsecondary Education Commission, to stay abreast of instructional media developments throughout the country, and there need to be CPEC-operated clearinghouses in each of eight or more regions to provide to area institutions at least the following services suggested in Clark and Rubin's report:

- Maintaining an inventory of existing equipment, production facilities, and products (software, courseware) together with any evaluations of them;

- Providing consulting services to faculty members interested in using media-based approaches in their teaching;

- Stimulating further cooperation in other media comparable to that of the several existing broadcast television (collegiate) consortia;

- Coordinating the interconnection of existing equipment to allow regionwide (and statewide) use of materials both on and off campus;

- Providing access to course materials and other products by public libraries and other organizations for their use; and

- Coordinating (through CPEC) the sale of regionally-produced materials to institutions and agencies in other states.

RECOMMENDATION SIXTEEN: The Legislature should appropriate funds to the California Postsecondary Education Commission to operate a network of regionally-based media resource clearinghouses designed to facilitate efficient use of existing and new media-based instructional resources.

Funding: $500,000 annually to the California Postsecondary Education Commission.
Public Information

Finally, effective publicity about the expanded and new services described in the preceding chapters, and indeed about all the postsecondary education or lifelong learning programs in the state, is essential. Otherwise, none of the proposed innovations will achieve their objective of extending postsecondary opportunities to all Californians. Without knowing about them, people cannot use them.

The Legislature could rightly object to the various segments of California higher education (or individual campuses) using state funds for essentially competitive advertising aimed at recruiting new students. It should, however, support a coordinated program of public information about all postsecondary opportunities, with a special focus on the proposed new counseling and information services which are expected to stimulate new enrollments throughout the state’s postsecondary education complex.

Hodgkinson and Shear (1975) have suggested a number of imaginative approaches, first, for sensitizing people to the possibility for further personal development and, second, for steering them to the proposed counseling and information centers as the place to plan the role of education in this development.

A two-level approach is probably needed: one aimed at human service professionals, including various social workers, religious leaders, industry personnel and training officers, union leaders, and so forth; and the other aimed at potential learners themselves, particularly those having had the least contact with educational institutions. Newly-designed techniques may be needed to teach these poorly educated and otherwise unserved populations: traditional media, such as newspapers and magazines, may not be effective. Needless to say, the information must be in the language (for example, Spanish) of the respective target audiences.

The proposed public information program should be conceived and carried out at the regional level, following guidelines established by the California Postsecondary Education Commission.
RECOMMENDATION SEVENTEEN: The Legislature should appropriate funds to the California Postsecondary Education Commission to conduct a regionally-based public information program about all available postsecondary opportunities, with a particular focus on the proposed information and counseling service.

Funding: $200,000 annually to the California Postsecondary Education Commission.
CHAPTER NINE

PRIORITIES AND CONCLUDING OBSERVATIONS

This report has sought to present a reasoned case for postsecondary education as lifelong learning and for expanding its focus from "college-age" students to adults of all ages. It has assessed the needs of California for further postsecondary alternatives; it has compared these needs with the institutional resources already available to meet them; and it has proposed reforms and new services to narrow the gap between present accomplishments and needed achievement. In this concluding chapter, these reforms and new services are summarized in light of California's educational needs at large.

Agenda for Action

These are the changes that have been recommended in previous chapters, arranged here in priority order by the agency or institution that can undertake them:

The Legislature

Most important, the California Legislature should appropriate developmental funds to create the urgently needed information and counseling service, a statewide individualized degree-oriented learning program, and, a statewide learning validation service (Recommendations Ten through Thirteen), and the several information collection and dissemination services required to make these and the other changes effective (Recommendations Fourteen through Seventeen).

Second, it should take action to end discrimination against adult students and other part-time students in state-supported financial aid programs (Recommendation Three).
Third, it should appropriate funds to the Post-secondary Education Commission for competitive matching grants to public and private institutions that seek to serve better those groups who previously have been poorly served by postsecondary education (Recommendation Eight).

Fourth, it should appropriate program development funds to the California State University and Colleges and the University of California for further external degree offerings (Recommendation Six).

Fifth, it should allocate funds for fee waivers for needy students in Continuing Education and University Extension programs (Recommendation Four).

Sixth, the Legislature should convene a high-level task force to devise a more rational basis for funding all types of postsecondary education than now exists in California, and it should charge the California Post-secondary Education Commission and the State Board of Education to review jointly the financing of community colleges and adult community education programs (Recommendation Seven).

Seventh and last, it should go on record as favoring occupational certification and licensure on the basis of demonstrated skills and competence rather than the length of education; and it should appoint a task force on certification to seek improvements in this important area of consumer protection (Recommendation Nine).

Governing Boards and Policy Makers of Postsecondary Institutions

The governing boards and faculty and administrative leaders of both public and private postsecondary institutions in California should assure that their institutions act affirmatively in treating older adults and part-time students as equal members of the academic community along with young people and full-time students (Recommendation One).
The California State University and Colleges
and the University of California

The governing boards of the state's two senior systems of higher education should take two additional steps:

First, both of them should encourage their institutions to continue to extend their regular on-campus programs to off-campus students and sites (Recommendation Six).

Second, both should authorize cost analyses of their programs for concurrent enrollment of extension students in regular degree-credit programs and, as a result of these analyses, reduce concurrent enrollment fees to a point that reflects only the incremental cost of these enrollments (Recommendation Five).

California State University and Colleges

The Board of Trustees of the California State University and Colleges should examine the sliding scale of Student Service fees and, in consequence, reduce by up to one-third the per unit fee for less than full-time students while increasing the fee slightly for students enrolled for 16 units or more (Recommendation Two).

The Board should also reduce the fees of External Degree students to essentially the same as those for students in on-campus programs with the same purpose (Recommendation Six).

Finally, it should authorize Educational Opportunity Program aid for part-time students as well as full-time students (Recommendation Three).

University of California

The Regents of the University of California should implement a fee structure that more accurately reflects the differences in costs and services received by regular part-time and full-time degree credit students (Recommendation Two).
California Community Colleges

The Board of Governors of the California Community Colleges should allow part-time students to be eligible for Extended Opportunity Programs and Services grants (Recommendation Three).

California Postsecondary Education Commission

The Postsecondary Education Commission should be prepared to administer the new information services needed to improve existing programs and to make the new services recommended in this report effective (Recommendations Fourteen through Seventeen). It should accept the responsibility for granting funds on a competitive basis to institutions that seek to serve groups that have not been well served heretofore (Recommendation Eight); and together with the State Board of Education it should review the funding of community colleges and adult and community education programs (Recommendation Seven).

State Scholarship and Loan Commission

The State Scholarship and Loan Commission should act to end discrimination against part-time and adult students in its financial aid policies (Recommendation Three).

Department of Professional and Vocational Standards, and Professional Licensing Boards

Finally, each of the state's professional licensing boards as well as the Department of Professional and Vocational Standards should work toward certification or licensure on the basis of demonstrated competence rather than the length of education (Recommendation Nine).

The Broader Context

The remaining pages view these recommendations in a larger context that includes all of education, other human services, and work in California in the foreseeable future.
Redirection of Postsecondary Resources. In the years just ahead, it will be necessary for resources to be redirected both among the several segments of post-secondary education in the state and also within existing institutions. Such a course appears inevitable in a period when public revenues are limited and the traditional college-age population will be declining.

This report has pointed to four broad areas for postsecondary redirection: (1) providing learning opportunities for adults of all ages, (2) enabling them to study in more convenient off-campus locations, (3) facilitating part-time study, and (4) serving different clientele with special learning needs and problems.

This redirection can be gradual, but it must be substantial over the next five to ten years, during which time the anticipated decline in numbers of 18 to 21 year olds will have set in. The redirection should be carefully planned. It will most certainly not be easy. College administrators have experience in managing growth, not non-growth. Little is known about how to accomplish redirection or reallocation of resources—human and otherwise—in democratic institutions where the human "resources" are fiercely independent. Faculty must be helped to understand the new realities; they cannot be "dealt" with heavy-handedly. On the other hand, wholly self-serving or unit (e.g., departmental)—serving practices cannot be condoned. To the extent that institutions cannot redirect their activities, new institutions with new missions will become necessary.

Content and Purpose. In the main, this report has dealt more with increased access to postsecondary education than with the content and purpose of the education. One of the advantages of the proposed new institution is that it would have substantial freedom to establish its own degree requirements. In discussing the Individualized Learning Program in Chapter Six, it was suggested that students have wide flexibility in designing their programs; there should be options, for example, for general learning (liberal arts, humanities, social relations, etc.), for specialized learning, for problem-oriented studies, for on-the-job learning in which theory can be linked with practice, and so forth, depending on the interests of the individual student.
Beyond flexibility, however, is the question of a required "core" of knowledge and/or competencies. What should a degree from the proposed new institution mean in terms of the competencies of the recipient? What values should the new college stand for? What competencies among the state's educated citizenry are likely to be in the interests of both the individual citizen and the state in the foreseeable future?*

Structure. Consider what is easily the best known structural attribute of California's public higher education system--its renowned three tiers (the community colleges, the California State University and Colleges, and the University of California). As such, it is a stratified system, with differing admissions standards, instructional costs per student, and job prospects on graduation. Not atypically, California is a stratified society, and arguably a stratified higher education system functions to preserve a stratified society (Peterson, 1970; Karabel, 1972). It is conceivable that a less stratified educational system would help to achieve a more humane society, one with fewer invidious class distinctions.

The proposed new public segment--California Open College--would not be another tier. Its various learning and certification services would be open to all, while at the same time, standards for its degrees in terms of intellectual competence would be as high or higher than most other four-year institutions in the state. It would represent a complementary counterforce to the present three-tiered structure.

Independent Colleges and Universities. Many independent degree-granting institutions in California, as elsewhere in the country, are in serious financial difficulty. Their potential pool of applicants has dwindled in the past five years, due chiefly to their high tuition and the increased accessibility of relatively low-tuition public colleges.

*In an earlier project report, a set of "minimum competencies" judged to be necessary for effective functioning in the future California society were offered (Hefferlin, Peterson, and Roelfs, 1975, pp. 91-92).
The quality of education, including the quality of campus intellectual life, is superior at many of the independent colleges to that at the typical public college. And together they represent a diversity of educational experiences that the public sectors can by no means match. In short, there are quality resources at the independent institutions in the state which are increasingly underutilized.

Without exploring in depth the legal and other issues involved, this report has suggested that the independent institutions be included in the multi-segment alternative (California Cooperative College) for operating the proposed individualized learning and validation programs. They would be involved in the expanded professional upgrading efforts recommended, and the information services outlined in Chapter Eight would apply to them as well as to public colleges. Even if all these measures were implemented, however, many of these colleges would still be in financial trouble. Drawing on the current study of these institutions by the California Postsecondary Education Commission, there needs soon to be some decision regarding support for the independent institutions in the state (beyond the aid provided through the state scholarship system).

Elementary and Secondary Education. One ought not to consider policy and structure for one level of education such as postsecondary without considering the others. In practice, the lines of demarcation are at best often unclear, and at worst competitive battlegrounds, as for example, between the high schools and community colleges in some districts for adult education "bodies."

Little has been said in this report about remedial education, on the assumption that "the basics" are the responsibility of the elementary and secondary schools and thus not within the scope of this report. Yet there are hundreds of marginally literate students in the community colleges who are products of the state's elementary and secondary schools--and of educationally disadvantaged families. Problems involved in literacy training are extremely difficult, and their necessary high priority cannot be denied. Beyond this immediate problem, however, one could speculate about a policy
that once youths mastered basic skills, formal education would no longer be compulsory. They could move out of the formal education stream, usually temporarily, or they could progress immediately to "higher" education. (Either pattern would be routine in an integrated lifelong learning system which makes no particular distinctions between "elementary," "secondary," and "higher" education.)

Education and Work. For two reasons, nothing has been said in the body of this report about the need for trained manpower in specific fields presumably necessary to the functioning of the economy: first, manpower forecasts in the past have been notably unreliable; and second, people ought to be allowed to study whatever they wish, although they should be given the best available information on future job prospects.

The one exception stems from the apparently unmistakable trend for the economy to become increasingly service-oriented rather than production oriented. With "service" defined narrowly as "human service"—professionals and others working directly with individuals as clients for their improved well-being—the number of such jobs is expected to double by the turn of the century to comprise 40 percent of the total. It seems important, therefore, to give attention to how to best train human service workers. If existing schools and departments are judged by consumers and agencies not to be preparing effective, humane practitioners, new types of institutions with quite different educational philosophies and approaches may be needed. In addition to stressing on-the-job learning and evaluation of trainees by consumers, such new programs could be designed in "recurrent" terms, to accommodate people coming back for retraining.

A second occupational theme is that substantial benefits may be gained from closer relations between colleges and places of work throughout the state. Specifically, as recently proposed by James O'Toole (1975), colleges could actively approach large industrial and governmental organizations with the suggestion that they respond to educational interests of employees at the work place during the customary work day. Programs need not necessarily be in the nature of in-service training. Instead they could cover topics of general interest—from parent effectiveness training and contemporary literature to current political issues.
The learning society is conceived as one in which active learning pervades all domains of peoples' lives. Educators can invent numerous ways by which existing higher education resources, private as well as public, can be extended into work sites where a majority of people spend nearly one-fourth of their lives.

Education and Other Human Services. The functional interrelatedness of all the human or social services, including education, is becoming increasingly apparent. Many people simultaneously need aid from more than one social service. Yet various agencies are not only narrowly focused on one kind of problem but sometimes work at cross-purposes from each other. What seems needed is a mechanism by which the full range of the state's human services can be readily brought to bear in whatever combination the individual may need. Thus the proposed Educational Services Centers should have close liaison with the providers of other social services, and ideally be housed in close proximity to them. Relatively high-level planning and coordination is needed. People should not have to deal successively and usually with difficulty with a series of seemingly unconnected services.

Postsecondary Education as Lifelong Learning

These are all large and difficult issues. They help provide a background for the specific proposals in this report, as well as a framework for what could become a wide and constructive dialogue regarding the future of postsecondary education and perhaps all of education in California. We hope that wise and far-sighted leadership will emerge from the postsecondary community to help make the case for diversified yet coordinated postsecondary opportunities within the total scheme of education and governmental priorities in the state.

At the Upjohn Company in Santa Cruz, a pharmaceutical aide says, "I'm interested in all kinds of technical things, but don't find them readily available to me—diesel mechanics, carpentry, electronics, brick
masonry. I don't want to necessarily spend one to four years learning each and every one of these, but I'd like to take a class every now and then and still be able to get a job."

- In San Francisco, a 28-year old receptionist reports that she wants to return to her main interest, social work, but she cannot commit two years of full-time study for her master's degree. She has taken occasional extension courses in the field but wonders if any evening programs in social work are available. She observes, "If the library knew about such programs, I'd certainly take advantage of it.

Access to education throughout life holds vast potential for uplifting the lives of individuals such as these as well as the general quality of life in California. The range of reforms and new services proposed in this report will make opportunities for lifelong learning a reality and demonstrate their importance for the well-being of the state.
REFERENCES


California Department of Finance. Total and Full-Time Enrollment, California Institutions of Higher Education, Fall 1973. Sacramento: The Department, N.D.


Cross, K. P. "Lowering the Barriers for Adult Learners." Speech at a Conference on the Liberal Arts College and the Experienced Learner, Santa Barbara, California, June 19, 1974.


O'Toole, J. "The Reserve Army of the Underemployed." Change. May 1975 (7:4) 26-33, 63; and June 1975 (7:5) 26-33, 60-62.


APPENDIX

FINANCING THE PROPOSED NEW SERVICES

John R. Shea

This appendix presents tentative cost estimates for each of the sponsorship alternatives for the services described in Chapter Seven. Methods or sources of finance are also discussed, with particular emphasis on tuition and other user fees versus state or local government subsidies and special purpose grants or contracts.

The cost estimates are intended to convey a sense of the orders of magnitude implicit in a commitment to meet the needs identified earlier in the report. Costs are difficult to estimate with precision for several reasons, including the lack of detailed specification of each model and sponsorship alternative. This is to be expected, and it is hoped that the assumptions, estimates, and projections offered here will be refined as time passes and as a consensus emerges as to how best to meet each need and how fully to do so.

Analytic Approach

A distinction is made in this analysis between start-up or initial development costs on the one hand and on-going operating costs on the other. It is assumed that approximately half of the former will be incurred during a three-year "developmental phase", extending from 1976 to 1979. This period includes one year of advance planning and program design, followed by one year of operation of two Educational Services Centers (one urban, one rural) in a single region at less than half of capacity, and a final year of operation of four centers in the same region at about three-quarters of capacity.

This phase would be followed immediately by a "statewide implementation" phase, with establishment of seven additional regional offices and 28 more centers. The one-time cost of expanding the system prior to service delivery in these other locations is counted as part of start-up and development costs in 1976-80. It will take time (1) to recruit and train
additional staff, (2) to acquire space and equipment, and (3) to implement procedures found serviceable during the earlier developmental period. For this reason, it is assumed that, on the average*, the eight regional offices and 32 centers will operate at 75 percent* of full capacity during only half of the 1979-80 fiscal year. Then, after a full year of operation at 75 percent of capacity in 1980-81, our projections assume operation at 90 percent of capacity of the 32 centers in 1981-82, and 100 percent utilization of the same number of centers in 1982-83. (Growth beyond that point will presumably depend on creation of additional centers.)

Several sponsorship alternatives have been identified for each of the four sets of services needed by potential learners in California. Choice of sponsor will almost certainly make some difference in clientele served, level of operation, and the nature (and quality) of each service offered. This is to be expected in view of differences in traditions of existing organizations, and the difficulties (and opportunities) that would face any new organization created expressly to provide the new services. Despite these differences, for expository purposes our analysis is in terms of "units of service" as if they would be the same, and we assume identical levels of operation each year, regardless of sponsor. Furthermore, all prices (including annual wage rates) are in dollars of constant purchasing power.

Our basic cost estimates are constructed on the basis of judgments of what it would take to create a completely new institution to provide each service (or set of services). Having constructed this "base estimate," the figures have been adjusted (up or down, as appropriate) to reflect the probable cost of using existing institutions or of creating a new multi-segmental organization to provide the services required.

*The original regional office and four centers may well operate at close to capacity. Other offices and centers will be phased in over the year.
Table One shows the estimated cost of establishing the information and counseling service. At full capacity, it is assumed that the average Educational Services Center would serve 1,200 people per year, with the bulk of clients (80 percent, or 960) wishing information only and the remainder (20 percent, or 240) using an average of five hours of counseling and assessment time. This pattern coincides reasonably well with experience elsewhere (Macy, 1975; Rhode Island, 1974).

There is a clear public interest in the provision of useful information to the state's citizens. Many individuals who will use the service will be so-called "walk-ins," interested only (or mainly) in finding out about education and training opportunities in their area. (Many will contact the Center over the telephone.) On grounds of administrative feasibility, we see no reason to charge such persons for limited services, in the same way that people who browse in libraries are not charged a user fee. On the other hand, it is proposed that persons wishing counseling/personal assessment services be charged a fee of $15 per hour. So that low-income persons in need of such services are not denied them, the budget estimates in Table 1 include an appropriation for fee waivers to reduce the average price to $10 per hour. Just as in the case of the public employment service, some subsidy of counseling and personal assessment is justified.

As with other services discussed below, we propose that in addition to fee waivers the state subsidize one-half of all costs (less user fees) during the developmental phase. Beyond that point, there are various funding possibilities. Our projections assume that users will bear about 10 percent of the total cost of the program regardless of sponsor.

The following paragraphs discuss differences in cost estimates between Model 1C and 1A. Costs for Model 1B are assumed to fall between these two, but because of their unpredictable range depending on the agencies coordinated in that model, they are not discussed here.
# APPENDIX TABLE ONE

## Information and Counseling Service

<table>
<thead>
<tr>
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</thead>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1. Services (Units of Services)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Information only</td>
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<td>$11,520</td>
<td>$23,040</td>
<td>$27,648</td>
<td>$34,400</td>
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<tr>
<td>b. Counseling/Personal Assistance</td>
<td>$1,080</td>
<td>$2,880</td>
<td>$3,740</td>
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<td>$5,492</td>
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<tr>
<td>c. Total</td>
<td>$5,400</td>
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<td>$26,780</td>
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<td>2. Expenditures (100)</td>
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<td></td>
<td></td>
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<tr>
<td>a. Salaries</td>
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<td>$66,000</td>
<td>$42,000</td>
<td>$48,000</td>
<td>$57,000</td>
</tr>
<tr>
<td>b. Contracted statewide</td>
<td>$1,572</td>
<td>$2,266</td>
<td>$2,860</td>
<td>$3,430</td>
<td>$4,030</td>
</tr>
<tr>
<td>c. Total</td>
<td>$62,572</td>
<td>$68,266</td>
<td>$44,860</td>
<td>$51,430</td>
<td>$61,030</td>
</tr>
<tr>
<td>3. Revenue (100)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. User fees</td>
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<td>$42,000</td>
<td>$48,000</td>
<td>$57,000</td>
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<td>$44,860</td>
<td>$51,430</td>
<td>$61,030</td>
</tr>
<tr>
<td>4. Operating expenditures per person served (100)</td>
<td>$110</td>
<td>$110</td>
<td>$110</td>
<td>$91</td>
<td>$82</td>
</tr>
</tbody>
</table>

| **Cumberland**                      |                                  |         |         |         |         |
| 1. Services (Units of Services)     |                                  |         |         |         |         |
| a. Information only                 | $4,320                           | $11,520 | $23,040 | $27,648 | $34,400 |
| b. Counseling/Personal Assistance   | $1,080                           | $2,880  | $3,740  | $4,912  | $5,492  |
| c. Total                            | $5,400                           | $14,400 | $26,780 | $32,560 | $39,892 |
| 2. Expenditures (100)               |                                  |         |         |         |         |
| a. Salaries                         | $61,000                          | $66,000 | $42,000 | $48,000 | $57,000 |
| b. Contracted statewide             | $1,572                           | $2,266  | $2,860  | $3,430  | $4,030  |
| c. Total                            | $62,572                          | $68,266 | $44,860 | $51,430 | $61,030 |
| 3. Revenue (100)                    |                                  |         |         |         |         |
| a. User fees                        | $61,000                          | $66,000 | $42,000 | $48,000 | $57,000 |
| b. Tuition/fees                     | $1,572                           | $2,266  | $2,860  | $3,430  | $4,030  |
| c. Total                            | $62,572                          | $68,266 | $44,860 | $51,430 | $61,030 |
| 4. Operating expenditures per person served (100) | $110 | $110 | $110 | $91 | $82 |

*Note: Total costs for Appalachian and Cumberland include all costs for Appalachian and Cumberland, respectively.*

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**State Incentive Model (100)**

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<td></td>
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<td>a. Salaries</td>
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<td>$68,266</td>
<td>$44,860</td>
<td>$51,430</td>
<td>$61,030</td>
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<tr>
<td>4. Operating expenditures per person served (100)</td>
<td>$110</td>
<td>$110</td>
<td>$110</td>
<td>$91</td>
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**North Carolina Model (100)**

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<td>c. Total</td>
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<tr>
<td>2. Expenditures (100)</td>
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<td>a. Salaries</td>
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<td>$66,000</td>
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<td>$57,000</td>
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<td>b. Contracted statewide</td>
<td>$1,572</td>
<td>$2,266</td>
<td>$2,860</td>
<td>$3,430</td>
<td>$4,030</td>
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<td>$68,266</td>
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<td>$61,030</td>
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<td>$44,860</td>
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<td>4. Operating expenditures per person served (100)</td>
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<td>$110</td>
<td>$110</td>
<td>$91</td>
<td>$82</td>
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New Independent Organization

The annual cost of operating both an Educational Services Center and a regional office under Model 1C (New Independent Organization) would be as follows:

Community Center

a. Personnel:

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<th>Position</th>
<th>Salary</th>
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<tbody>
<tr>
<td>Director</td>
<td>$18,000</td>
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<tr>
<td>Counselor</td>
<td>$14,000</td>
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<tr>
<td>Clerical</td>
<td>$9,000</td>
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<tr>
<td>Paraprofessional</td>
<td>$9,000</td>
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<tr>
<td>Fringe Benefits (.15)</td>
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Total Personnel Cost: $56,350

b. Other:

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<tr>
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</tr>
<tr>
<td>Computer terminal rent</td>
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<tr>
<td>Computer time</td>
<td>$2,500</td>
</tr>
<tr>
<td>Materials and supplies</td>
<td>$6,000</td>
</tr>
<tr>
<td>Printing and publicity</td>
<td>$4,000</td>
</tr>
<tr>
<td>Travel</td>
<td>$1,500</td>
</tr>
<tr>
<td>Telephone, postage</td>
<td>$2,500</td>
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<tr>
<td>Other</td>
<td>$3,000</td>
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Total Other Costs: $25,900

Regional Office

a. Personnel:

<table>
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<th>Position</th>
<th>Salary</th>
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</thead>
<tbody>
<tr>
<td>Director</td>
<td>$22,000</td>
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<tr>
<td>Secretary (.5)</td>
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<tr>
<td>Information specialist</td>
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<tr>
<td>Fringe Benefits (.15)</td>
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Total Personnel Cost: $46,575

b. Other:

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<tbody>
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<td>Computer services</td>
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<td>Materials and supplies</td>
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<tr>
<td>Printing and publicity</td>
<td>$7,000</td>
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<tr>
<td>Consultants</td>
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<tr>
<td>Travel</td>
<td>$3,000</td>
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<tr>
<td>Telephone, postage</td>
<td>$2,500</td>
</tr>
<tr>
<td>Other</td>
<td>$3,125</td>
</tr>
</tbody>
</table>

Total Other Costs: $31,500
As in the case of other services and models, the cost of operating the central (state) office is to be covered by start-up and development funds until the middle of the first year of statewide implementation. From then on, central office costs are assumed to be 10 percent of the cost of operating the eight regional offices and 32 neighborhood centers:

32 Centers ($82,250 x 32) $2,632,000
8 Regional offices ($78,075 x 8) 624,600
Sub-total 3,256,600
1 Central (state) Office (10%) 325,660
TOTAL 3,582,260

Special-purpose start-up and development activities during the three-year developmental phase are likely to be as follows for Model 1C:

<table>
<thead>
<tr>
<th></th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$60,000</td>
<td>$60,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Personnel (recruit, train, etc.)</td>
<td>10,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>System design (adm., service)</td>
<td>100,000</td>
<td>100,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Software/learning resources</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Equipment/furniture ($3,500 ea)</td>
<td>3,500</td>
<td>7,000</td>
<td>7,000</td>
</tr>
<tr>
<td></td>
<td>$223,500</td>
<td>$237,000</td>
<td>$187,000</td>
</tr>
</tbody>
</table>

The total of $647,500 would be followed in the first half of 1979-80 by additional start-up expenditures to expand the system by adding seven additional regional offices and 28 more centers (total of 35 new units):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel (35 x $10,000)</td>
<td>$350,000</td>
</tr>
<tr>
<td>Equipment/furniture (35 x $3,500)</td>
<td>122,500</td>
</tr>
<tr>
<td>Other (35 x $10,000)</td>
<td>350,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$522,500</td>
</tr>
</tbody>
</table>

These figures assume that $20,000 will be needed to establish each new office or center (half for personnel, half for space acquisition and other purposes), and that each will require $3,500 in equipment and furniture.
The State Library

Model 1A differs somewhat from 1C. Given an existing administrative infrastructure, some free space, support services (including computer capabilities), and some relevant past experience, each center is assumed to cost 10 percent less per year to operate, and a regional office 20 percent less. Start-up and development costs—including the cost of establishing each new office or center—are also assumed to be lower, as shown below:

<table>
<thead>
<tr>
<th></th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$50,000</td>
<td>$50,000</td>
<td>&lt; $50,000</td>
</tr>
<tr>
<td>Personnel (recruit,</td>
<td>8,000</td>
<td>16,000</td>
<td>16,000</td>
</tr>
<tr>
<td>train, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System design</td>
<td>75,000</td>
<td>75,000</td>
<td>50,000</td>
</tr>
<tr>
<td>(adm., service)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software/learning</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
</tr>
<tr>
<td>resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment/furniture</td>
<td>3,000</td>
<td>3,000</td>
<td>6,000</td>
</tr>
<tr>
<td>($3,000 ea)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$171,000</td>
<td>$182,000</td>
<td>$157,000</td>
</tr>
</tbody>
</table>

1979-80 expansion:
- Personnel (35 @ $8,000) $280,000
- Equipment/furniture (35 @ $3,000) 105,000
- Other (35 @ $8,000) 280,000
- $665,000

**Individualized Learning Program**

Table Two shows the estimated cost of creating and operating a statewide individualized learning program. At full capacity, it is assumed that the average center would serve 100 full-time-equivalent students per year.
## Individualized Learning Program

### PROJECTIONS, EXPENDITURES, AND REVENUES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Services (Annual student FTE's)</strong></td>
<td></td>
<td>450</td>
<td>1,200</td>
<td>2,400</td>
<td>2,800</td>
<td>3,200</td>
</tr>
<tr>
<td><strong>2. Expenditures ($)</strong>:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Start-up/development</td>
<td></td>
<td>$625,000</td>
<td>$1,155,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Operating</td>
<td></td>
<td>1,173,555</td>
<td>2,955,256</td>
<td>$5,930,513</td>
<td>$5,930,513</td>
<td>$5,930,513</td>
</tr>
<tr>
<td>c. Tuition/fee waivers</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d. Total (except waivers)</td>
<td></td>
<td>1,798,555</td>
<td>4,120,256</td>
<td>5,930,513</td>
<td>5,930,513</td>
<td>5,930,513</td>
</tr>
<tr>
<td><strong>3. Revenues ($)</strong>:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Student fees</td>
<td></td>
<td>$93,150</td>
<td>$248,400</td>
<td>$496,600</td>
<td>596,160</td>
<td>662,400</td>
</tr>
<tr>
<td>(Less: tuition/fee waivers)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Net user fees</td>
<td></td>
<td>93,150</td>
<td>248,400</td>
<td>496,600</td>
<td>596,160</td>
<td>662,400</td>
</tr>
<tr>
<td>b. State subvention</td>
<td></td>
<td>852,702</td>
<td>3,471,856</td>
<td>5,433,713</td>
<td>5,324,535</td>
<td>5,248,113</td>
</tr>
<tr>
<td>c. Other (e.g., grants/contracts)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d. Net user fees as % of operating expenditures</td>
<td></td>
<td>7.9</td>
<td>8.4%</td>
<td>8.4%</td>
<td>10.1%</td>
<td>11.2%</td>
</tr>
<tr>
<td><strong>4. Operating expenditures per annual student FTE ($)</strong>:</td>
<td></td>
<td>$2,608</td>
<td>$2,471</td>
<td>$2,471</td>
<td>$2,059</td>
<td>$1,853</td>
</tr>
</tbody>
</table>

### Multi-Campus Institution (Model 2B)

| **1. Services (Annual student FTE's)** |                             | 450     | 1,200   | 2,400   | 2,800   | 3,200   |
| **2. Expenditures ($)**: |                             |         |         |         |         |         |
| a. Start-up/development   |                             | $1,220,000| $1,150,000|         |         |         |
| b. Operating              |                             | 1,173,555| 2,955,256| $5,930,513| $5,930,513| $5,930,513|
| c. Tuition/fee waivers     |                             | 0       | 0       | 0       | 0       | 0       |
| d. Total (except waivers) |                             | 2,393,555| 4,155,256| 5,930,513| 5,930,513| 5,930,513|
| **3. Revenues ($)**:      |                             |         |         |         |         |         |
| a. Student fees           |                             | $150,000| $400,000| $800,000| $960,000| $1,066,667|
| (Less: tuition/fee waivers)|                             | 0       | 0       | 0       | 0       | 0       |
| Net user fees             |                             | 150,000 | 400,000 | 800,000 | 960,000 | 1,066,667|
| b. State subvention       |                             | 1,121,777| 3,755,256| 5,130,513| 4,790,513| 4,683,866|
| c. Other (e.g., grants/contracts) |             | 0       | 0       | 0       | 0       | 0       |
| d. Net user fees as % of operating expenditures | | 12.8%   | 13.5%   | 13.5%   | 16.2%   | 18.0%   |
| **4. Operating expenditures per annual student FTE ($)**: | | $2,608 | $2,471 | $2,471 | $2,059 | $1,853 |

### New Organizational Model (Model 2C)

| **1. Services (Annual student FTE's)** |                             | 450     | 1,200   | 2,400   | 2,800   | 3,200   |
| **2. Expenditures ($)**: |                             |         |         |         |         |         |
| a. Start-up/development   |                             | $900,000| $1,610,000|         |         |         |
| b. Operating              |                             | 1,301,910| 3,247,720| 5,582,440| 6,589,440| 6,589,440|
| c. Tuition/fee waivers     |                             | 0       | 168,000 | 316,000 | 401,200 | 448,000 |
| d. Total (except waivers) |                             | 2,201,910| 4,004,720| 6,589,440| 6,589,440| 6,589,440|
| **3. Revenues ($)**:      |                             |         |         |         |         |         |
| a. Student fees           |                             | $315,000| $840,000| $1,680,000| $2,016,000| $2,244,000|
| (Less: tuition/fee waivers)|                             | 0       | (168,000) | (316,000) | (401,200) | (448,000) |
| Net user fees             |                             | 252,000 | 672,000 | 1,344,000| 1,612,800| 1,774,000|
| b. State subvention       |                             | 1,078,975| 4,400,120| 5,514,440| 4,374,840| 5,745,360|
| c. Other (e.g., grants/contracts) |             | 0       | 0       | 0       | 0       | 0       |
| d. Net user fees as % of operating expenditures | | 19.1%   | 20.4%   | 20.4%   | 24.5%   | 26.9%   |
| **4. Operating expenditures per annual student FTE ($)**: | | $2,658 | $2,746 | $2,746 | $2,288 | $2,059 |

---

1. Annual student FTE equals 35 semester units.
2. Half the FTE accounted for by full-time students. Such students assumed to pay $4.80 per semester unit; less than full-time students assumed to pay average of $9.00 per semester unit.
3. Estimated: fees depend on distribution of enrollments by level (AA, BA, MA). Initial enrollment assumed to be heavy at bachelor's level.
4. Half the FTE accounted for by full-time students. Full-time students to pay $600 per year. Other students to average half-time are to pay average of $400 per year. Tuition/fee waivers equal 20 percent of gross user fees.
New Independent Organization

The annual cost of operating both a center and a regional office under Model 2C would be as follows:

Community Center

a. Personnel:
   Director $22,000
   Advisor (3.5 x $18,000) 63,000
   Clerical/tech (2 x $9,000) 18,000
   Fringe benefits (.15) 15,450
   Total Personnel Costs 118,450

b. Other:
   Space (7.5x150 sq. ft. x $5) $ 5,625
   Materials and supplies 7,000
   Printing and publicity 4,000
   Tutors/adjuncts 10,000
   Travel 2,500
   Telephone, postage 4,500
   Other 5,000
   Total Other Costs 38,625
   Total Costs 157,075

Regional Office

a. Personnel:
   Director $26,000
   Secretary 8,000
   Staff specialists (2 x $18,000) 36,000
   Fringe benefits (.15) 10,500
   Total Personnel Costs 80,000

b. Other:
   Space (4x150 sq. ft. x $5) $ 3,000
   Materials and supplies 5,000
   Printing and publicity 10,000
   Learning resources 12,000
   Travel 4,000
   Telephone, postage 2,000
   Other 2,000
   Total Other Costs 40,000
   Total Costs 120,500

\[182\]
The cost of operating the central (state) office is to be covered by start-up and development funds until the middle of the first year of statewide implementation. From there on, central office costs are assumed to be 10 percent of the cost of operating the eight regional offices and 32 centers:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>32 Centers ($157,075 x 32)</td>
<td>$5,026,400</td>
</tr>
<tr>
<td>8 Regional offices ($120,500 x 8)</td>
<td>946,000</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$5,990,400</td>
</tr>
<tr>
<td>1 Central (state) office (10%)</td>
<td>599,040</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$6,589,440</td>
</tr>
</tbody>
</table>

Special-purpose start-up and development activities during the developmental phase are likely to be as follows for the new independent institution sponsorship alternative (Model 2C):

<table>
<thead>
<tr>
<th></th>
<th>1976-77</th>
<th>1977-78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$75,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>Personnel (recruit, train, etc.)</td>
<td>30,000</td>
<td>40,000</td>
</tr>
<tr>
<td>System design (adm., service)</td>
<td>150,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Software/learning resources</td>
<td>6,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Equipment/furniture ($6,000 ea)</td>
<td>6,000</td>
<td>12,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$251,000</td>
<td>$377,000</td>
</tr>
</tbody>
</table>

The total of $980,000 would be followed in the first half of 1979-80 by additional start-up expenditures to expand the system by adding seven additional regional offices and 28 more centers (total of 35 new units):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel (35 @ $20,000)</td>
<td>700,000</td>
</tr>
<tr>
<td>Equipment/furniture (35 @ $6,000)</td>
<td>210,000</td>
</tr>
<tr>
<td>Other (35 @ $20,000)</td>
<td>700,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$1,610,000</td>
</tr>
</tbody>
</table>

These figures assume that $40,000 will be needed to establish each new office or center (half for personnel, half for space acquisition and other purposes), and that each will require $6,000 in equipment and furniture.
Consortia, CSUC and Multi-Segment Institution

Models 2A and 2B differ somewhat from 2C, because of existing administrative capability, free space on some campuses, and support services. The cost of operating each center and regional office is assumed to be 10 percent less per year. Start-up and development costs are likely to be considerably lower for 2A compared to 2C, but higher for 2B than for either of the other options. Because of considerable experience and resources built up over the past several years, start-up costs of 2A (CSUC Consortium) are likely to be approximately as shown below:

<table>
<thead>
<tr>
<th></th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$60,000</td>
<td>$60,000</td>
<td>$40,000</td>
</tr>
<tr>
<td>Personnel (recruit, train, etc.)</td>
<td>15,000</td>
<td>30,000</td>
<td>0,000</td>
</tr>
<tr>
<td>System design (adm., service)</td>
<td>75,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Software/learning resources</td>
<td>--</td>
<td>40,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Equipment/furniture ($3,000 ea)</td>
<td>3,000</td>
<td>6,000</td>
<td>6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$153,000</strong></td>
<td><strong>236,000</strong></td>
<td><strong>236,000</strong></td>
</tr>
</tbody>
</table>

1979-80 expansion:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel (35 @ $15,000)</td>
<td>$525,000</td>
</tr>
<tr>
<td>Equipment/furniture (? @ $3,000)</td>
<td>105,000</td>
</tr>
<tr>
<td>Other (35 @ $15,000)</td>
<td>525,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,155,000</strong></td>
</tr>
</tbody>
</table>
Due largely to expected administrative difficulties, similar costs for the multi-segment alternative (Model 2B) are likely to be approximately as follows:

<table>
<thead>
<tr>
<th></th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Personnel (recruit, train, etc.)</td>
<td>15,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>System design (adm., services)</td>
<td>200,000</td>
<td>250,000</td>
<td>225,000</td>
</tr>
<tr>
<td>Software/learning resources</td>
<td>--</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Equipment/furniture ($4,000 ea)</td>
<td>4,000</td>
<td>8,000</td>
<td>8,000</td>
</tr>
<tr>
<td></td>
<td>$344,000</td>
<td>$463,000</td>
<td>$413,000</td>
</tr>
</tbody>
</table>

1979-80 expansion:
Personnel (35 @ $15,000)       $525,000
Equipment/furniture (35 @ $4,000) 140,000
Other (35 @ $15,000)              525,000
$1,190,000

We assume that tuition and fees under 2A and 2B will be essentially the same as present fees charged by existing segments for degree-credit work. With respect to the third sponsorship option—a new independent institution—it is recommended that fees be essentially the same as those now charged by the University of California.

As with the other services, we propose that in addition to fee waivers (under 2C, only) the state subsidize one-half of all costs (less student fees) during the developmental phase. Thereafter, student fees would be about 10 percent of operating costs (2A), about 15 percent under 2B, or nearly 25 percent under 2C.
Learning Validation Service

Table Three shows the estimated cost of creating and operating Model Three, the Validation of Learning Model. At full capacity, it is assumed that the average center would deliver 700 "units of service" per year, distributed by type of service as shown at the top of Table Three.

New Independent Institution

The annual cost of operating a center and a regional office under Model 3C (New Independent Organization) would be approximately as follows:

COMMUNITY CENTER

A. Personnel:
   Director $20,000
   Clerical/technical staff 8,000
   Fringe benefits (.15) 4,200
   $32,200

   Other:
   Space (2 x 150 sq. ft. x $5) $1,500
   Materials and supplies 3,500
   Printing and publicity 2,000
   Consultants 6,000
   Travel 1,000
   Telephone, postage 2,000
   Other 3,000
   $19,000 $51,200

REGIONAL OFFICE

   a. Personnel
   Director $27,000
   Professional staff 18,000
   Clerical 8,000
   Fringe benefits (.15) 7,200
   $55,200
## Learning Validation Service

### APPENDIX TABLE THREE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Services (units of numbers/monetary amounts)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Enrolment</td>
<td>1,500</td>
<td>4,000</td>
<td>8,000</td>
<td>9,650</td>
<td>10,660</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Credit assessment</td>
<td>700</td>
<td>2,000</td>
<td>4,000</td>
<td>4,800</td>
<td>5,333</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Credit Bank</td>
<td>100</td>
<td>800</td>
<td>1,800</td>
<td>1,920</td>
<td>2,143</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Final degree evaluation</td>
<td>600</td>
<td>1,600</td>
<td>3,200</td>
<td>3,840</td>
<td>4,267</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Expenditure (S$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Startup development</td>
<td>840,000</td>
<td>805,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Total (S$)</td>
<td>1,395,840</td>
<td>2,042,486</td>
<td>5,444,232</td>
<td>5,444,232</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Revenue (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. User fees</td>
<td>272,030</td>
<td>492,100</td>
<td>5,144,200</td>
<td>5,144,200</td>
<td>5,144,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. State subsidy</td>
<td>664,218</td>
<td>1,448,584</td>
<td>1,771,330</td>
<td>1,771,330</td>
<td>1,771,330</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Other fees, grants, contracts</td>
<td>596,200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Not user fees as % of operating expenditure</td>
<td>36.78</td>
<td>42.54</td>
<td>41.34</td>
<td>47.68</td>
<td>52.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- User fees include: Tuition, fees, etc.
- State subsidy includes: Grants, etc.
- Other fees include: Tuition, fees, etc.
- Not user fees include: Tuition, fees, etc.
- Operating expenditure includes: Tuition, fees, etc.
b. Other

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space (3 x 150 sq. ft. x $5)</td>
<td>$2,250</td>
</tr>
<tr>
<td>Materials and supplies</td>
<td>5,000</td>
</tr>
<tr>
<td>Printing and publicity</td>
<td>6,000</td>
</tr>
<tr>
<td>Consultants/panels</td>
<td>35,200</td>
</tr>
<tr>
<td>Travel</td>
<td>3,000</td>
</tr>
<tr>
<td>Telephone, postage</td>
<td>5,000</td>
</tr>
<tr>
<td>Other</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$61,450</strong></td>
</tr>
</tbody>
</table>

The cost of operating the central (state) office is to be covered by start-up and development funds until the middle of the first year of statewide implementation. From there on, central office costs are assumed to be 10 percent of the cost of operating the eight regional offices and 32 centers:

- **32 Centers** ($51,200 x 32) = $1,638,400
- **8 Regional offices** ($116,650 x 8) = 933,200
- **Sub-total** = $2,571,600
- **Central (state) office (10%)** = 257,160
- **TOTAL** = $2,828,760

For Model 3C, special-purpose start-up and development costs during the "developmental phase" are likely to be as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Personnel (recruit, train, etc.)</td>
<td>15,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>System design (adm., services)</td>
<td>200,000</td>
<td>250,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Equipment/furniture ($5,000 each)</td>
<td>5,000</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$320,000</strong></td>
<td><strong>$390,000</strong></td>
<td><strong>$440,000</strong></td>
</tr>
</tbody>
</table>
The total of $1,150,000 would be followed in the first half of 1979-80 by additional start-up expenditures to expand the system by adding seven additional regional offices and 28 more centers (total of 35 new units):

- Personnel (35 @ $15,000) $525,000
- Equipment/furniture (35 @ $5,000) 175,000
- Other (35 @ $15,000) 525,000

$1,225,000

These figures assume that $30,000 will be needed to establish each new office or center (half for personnel, half for space acquisition and other purposes) and that each will require, on the average, $5,000 in equipment and furniture.

Consortium and Multi-Segment Institution

Operation of Models 3A and 3B results in a somewhat difficult level and pattern of expenditures compared to 3C. It is assumed that the CSUC Consortium could operate each regional office for about 20 percent less than in 3C, and each center at 10 percent less. Again, these assumptions reflect developed expertise, a minimum of administrative discord, and similar factors. The cost of operating each center in the Multi-Segment model is also assumed to be 10 percent lower than for 3C, but regional office costs are likely to be about the same as in 3C. Once again, it seems reasonable that start-up and development costs of 3A would be considerably lower than for 3C, with 3B being even higher. Shown on the next page are cost estimates for start-up and development activities for 3A and 3B:

<table>
<thead>
<tr>
<th>CSUC Consortium (3A)</th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and</td>
<td>$75,000</td>
<td>$75,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>evaluation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel (recruit,</td>
<td>$10,000</td>
<td>$20,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>train, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System design</td>
<td>$150,000</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>(adm., services)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment/furniture</td>
<td>$3,000</td>
<td>$6,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>(35,000 each)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$238,000</td>
<td>$301,000</td>
<td>$301,000</td>
</tr>
</tbody>
</table>
1979-80 expansion:

Personnel (35 @ $10,000) $350,000
Equipment/furniture (35 @ $3,000) 105,000
Other (35 @ $10,000) 350,000

$805,000

Multi-Segment (3B)  

<table>
<thead>
<tr>
<th></th>
<th>1976-77</th>
<th>1977-78</th>
<th>1978-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and evaluation</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
</tr>
<tr>
<td>Personnel (recruit, train, etc.)</td>
<td>20,000</td>
<td>40,000</td>
<td>40,000</td>
</tr>
<tr>
<td>System design (adm., services)</td>
<td>250,000</td>
<td>350,000</td>
<td>350,000</td>
</tr>
<tr>
<td>Equipment/furniture ($4,000 each)</td>
<td>4,000</td>
<td>8,000</td>
<td>8,000</td>
</tr>
</tbody>
</table>

$399,000 $523,000 $523,000

1979-80 expansion:

Personnel (35 @ $20,000) $700,000
Equipment/furniture (35 @ $4,000) 140,000
Other (35 @ $20,000) 700,000

$1,540,000

It is assumed that gross user charges (fees) will be set to reflect the unit cost of providing each service under 3C assumptions when the system reaches capacity operation in 1982-83, with adjustments made in the prices of the services to build in deliberately some degree of state subsidy. There are public, quality control and other factors--most notably minimizing unnecessary duplication of course work*--that argue for some subsidy of credit assessment and final degree evaluation.

As with the other services, it is proposed that in addition to fee waivers (equal to 25 percent of gross user charges) the state subsidize one-half of all costs (less net user fees) during the developmental phase. Beyond that point, we project that net fees will approximate 50 percent of long-run operating costs.

*This assumes that the alternative path to a degree is to be forced into course work which largely duplicates what the student has learned through nonformal channels.
Comprehensive Adult Learning Service

Tables Four and Five summarize the cost and revenue estimates presented above, and show the probable implications of implementing the Comprehensive Adult Learning Service. Table Four presents the expenditure side of the budget, while Table Five gives the revenue side. In arriving at the Model Four estimates, we have made certain assumptions regarding the efficiency implications of combining services of Models 2 and 3 under a single sponsor: the CSUC Consortium or a new institution, as is the case.

In effect, it is estimated that start-up and development costs during the "developmental phase" would be 90 percent of the combined total of 2A and 3A, and of 2B and 3B. The expansion costs in 1979-80 are likely to be 75 percent of the given totals; and operations are projected to be 94 percent of what they would be if 2A, 3A (or, alternatively, 2B, and 3B) stood alone.

Regarding 1C, 2C, and 3C, taken together, it is estimated that start-up and development costs during the "developmental phase" would be 85 percent of the combined total, each considered separately. The expansion costs are calculated to be 67 percent of the sum totals; and operations are projected to be 90 percent of what they would be if each service were created independently.

The consequences of these plausible assumptions are interesting. Despite some substantial efficiency gains from combining the information and counseling services of Model 1C with services of 2C and 3C, the combination of State Library (for Model One) and the CSUC Consortium (for Models Two and Three) is undoubtedly the least costly alternative. However, the New Independent Institution, while still considerably more costly in operating terms than even the Multi-Segment Institution, would be less expensive to develop, and given substantially higher user fees, its cost to the state taxpayer from 1976 to 1983 compares quite favorably with either of the other options.
APPENDIX TABLE FOUR

Projected Expenditures, by Purpose:
All Models and Sponsorship Alternatives
(seven year cumulative totals)

<table>
<thead>
<tr>
<th></th>
<th>A: State Library/</th>
<th>B: Consolidated University/</th>
<th>C: New Institution/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Development</td>
<td>Development</td>
<td>Development</td>
</tr>
<tr>
<td></td>
<td>Statewide</td>
<td>Statewide</td>
<td>Statewide</td>
</tr>
<tr>
<td></td>
<td>Information and Counseling</td>
<td>Information and Counseling</td>
<td>Information and Counseling</td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td>Service</td>
<td>Service</td>
</tr>
<tr>
<td></td>
<td>Start-up and Development</td>
<td>$ 710,000</td>
<td>$ 1,177,555</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>$ 611,530</td>
<td>$ 1,120,000</td>
</tr>
<tr>
<td></td>
<td>Tuition/fee waivers</td>
<td>$ 27,000</td>
<td>$ 27,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>$ 1,348,530</td>
<td>$ 2,324,555</td>
</tr>
<tr>
<td></td>
<td>Start-up and Development</td>
<td>$ 1,120,000</td>
<td>$ 1,177,555</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>$ 1,177,555</td>
<td>$ 1,120,000</td>
</tr>
<tr>
<td></td>
<td>Tuition/fee waivers</td>
<td>$ 27,000</td>
<td>$ 27,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>$ 2,298,555</td>
<td>$ 2,424,555</td>
</tr>
<tr>
<td></td>
<td>Start-up and Development</td>
<td>$ 1,177,555</td>
<td>$ 1,120,000</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>$ 1,120,000</td>
<td>$ 1,177,555</td>
</tr>
<tr>
<td></td>
<td>Tuition/fee waivers</td>
<td>$ 27,000</td>
<td>$ 27,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>$ 2,324,555</td>
<td>$ 2,424,555</td>
</tr>
</tbody>
</table>

*The figures given here are the same as for the State Library Alternative (Model 1A). This is probably a conservative estimate, that is, the cost involved in developing a separate
unit of service is likely to be less than the amount shown here.*
### APPENDIX TABLE FIVE

Projected Revenues, by Source:  
All Models and Sponsorship Alternatives  
(seven year cumulative totals)

<table>
<thead>
<tr>
<th>Source Description</th>
<th>A: State Library/Cooperative Extension</th>
<th>B: Coordinated Agencies/Multiplier</th>
<th>C: New Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial Phase</td>
<td>Statewide Implementation</td>
<td>Initial Phase</td>
</tr>
<tr>
<td></td>
<td>Net User Fees</td>
<td>Statewide</td>
<td>Net User Fees</td>
</tr>
<tr>
<td>Net User Fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State subsidy</td>
<td>$54,000</td>
<td>$1,161,600</td>
<td>$54,000</td>
</tr>
<tr>
<td>Other</td>
<td>$541,765</td>
<td>$12,289,448</td>
<td>$541,765</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,166,510</strong></td>
<td><strong>$12,289,448</strong></td>
<td><strong>$1,166,510</strong></td>
</tr>
<tr>
<td>Individualized Learning Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net User Fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State subsidy</td>
<td>$93,050</td>
<td>$2,003,760</td>
<td>$150,000</td>
</tr>
<tr>
<td>Other</td>
<td>$82,700</td>
<td>$19,408,035</td>
<td>$1,121,777</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,798,535</strong></td>
<td><strong>$21,946,795</strong></td>
<td><strong>$2,333,555</strong></td>
</tr>
<tr>
<td>Learning Validation Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net User Fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State subsidy</td>
<td>$384,028</td>
<td>$3,969,923</td>
<td>$204,028</td>
</tr>
<tr>
<td>Other</td>
<td>$641,765</td>
<td>$12,289,448</td>
<td>$541,765</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,664,560</strong></td>
<td><strong>$10,679,441</strong></td>
<td><strong>$2,119,441</strong></td>
</tr>
<tr>
<td>Comprehensive Adult Learning Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net User Fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State subsidy</td>
<td>$551,178</td>
<td>$8,357,046</td>
<td>$404,028</td>
</tr>
<tr>
<td>Other</td>
<td>$1,029,177</td>
<td>$15,497,566</td>
<td>$527,999</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$5,510,255</strong></td>
<td><strong>$42,623,130</strong></td>
<td><strong>$5,510,255</strong></td>
</tr>
</tbody>
</table>

*Net footnote, Table 4.*

END