

1-1-1988

An examination of the place of comprehensive liberal education : curricular challenge for community colleges.

Malinda M. Smutek

University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/dissertations_1

Recommended Citation

Smutek, Malinda M., "An examination of the place of comprehensive liberal education : curricular challenge for community colleges." (1988). *Doctoral Dissertations 1896 - February 2014*. 4391.
https://scholarworks.umass.edu/dissertations_1/4391

This Open Access Dissertation is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Doctoral Dissertations 1896 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.



312066009182261

An Examination of the Place
of
Comprehensive Liberal Education:
Curricular Challenge
for
Community Colleges

A Dissertation Presented

by

MALINDA M. SMUTEK

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

May 1988

School of Education

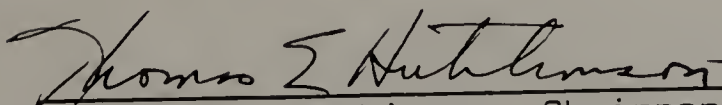
c Copyright by Malinda Mary Smutek 1988

All Rights Reserved

An Examination of the Place
of
Comprehensive Liberal Education:
Curricular Challenge
for
Community Colleges

A Dissertation Presented
by
MALINDA M. SMUTEK

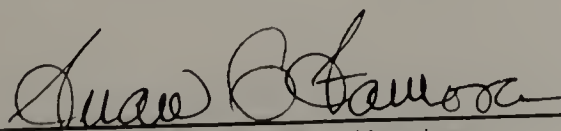
Approved as to style and content by:



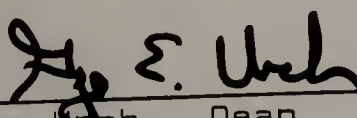
Thomas E. Hutchinson, Chairperson



Robert Sinclair, Member



Juan C. Zamora, Member



George Uch, Dean
School of Education

ACKNOWLEDGEMENTS

This study would not have been possible without the generous assistance of many persons.

First and foremost, I am grateful to Dr. Thomas E. Hutchinson, whose support and encouraging suggestions were unflinching. Many thanks I also extend to Dr. Robert Sinclair who rendered valuable assistance in the research direction and design. Moreover, I offer my gratitude to Dr. Juan C. Zamora who brought his insight of the human condition to the research model.

Furthermore, I appreciate the support and assistance of the Honorable David Bartley, former Speaker of the Massachusetts House of Representatives and President of Holyoke Community College; Dr. Franklyn Jenifer, Chancellor of the Board of Regents of Higher Education; Dr. Harold Shively, President of Bunker Hill Community College; and Dr. Kathleen Assar, Dean of Academic Affairs of Bunker Hill Community College.

I owe a special debt to Adele Kaplan Jacobson, Dr. Martha Cobb, Almeida King, Marquela Perez Arenas, Henry Black, Consuelo Louriero, and Mrs. Mills, who, as educators, have shown me that the power of teaching lies in the teacher's ability to awaken in students that creative spirit which empowers them to seize the moment and proclaim their right to be.

I am also thankful for the support and guidance of Dr. Emile T. Kalita, Dr. Tema Carter, and Charlotte Diamond.

I give special thanks to Roberta Paron, Susan Lak, Mardee Gerren Goldberg, and William Russo for their endless encouragement.

Above all, I extend my deepest gratitude to my mother, Mrs. Wanda Gardzienski Smutek; my grandmother, Mrs. Aniela Novak Gardzienski; and my aunt, Mrs. Evelyn Gardzienski Lak, who never lost faith in my ability to go beyond the horizon.

ABSTRACT

AN EXAMINATION OF THE PLACE OF COMPREHENSIVE
LIBERAL EDUCATION: CURRICULAR CHALLENGE FOR
COMMUNITY COLLEGES

MAY 1988

MALINDA M. SMUTEK, B.A., AMERICAN INTERNATIONAL COLLEGE

M.A., UNIVERSITY OF MASSACHUSETTS

Ed.D., UNIVERISTY OF MASSACHUSETTS

Directed by: Professor Thomas E. Hutchinson

This study provided research data concerning the role of comprehensive liberal education in the curriculum of community colleges in Massachusetts.

The Board of Regents of Higher Education and administrative officers of eight randomly selected community colleges were included in the sample survey research approach used. Data were collected from three sources--institutional documents, interview questionnaires, and statistical information.

The liberal arts program, its electives and requirements; student enrollments; student demographics; course offerings; course enrollments; student transfers to community colleges; and community college student transfers to four year institutions were examined for the Fall 1985, Spring 1986, Fall 1986, and Spring 1987 semesters.

The Chairperson and the Chancellor of the Board of Regents, Vice Chancellors of Academic Affairs, Planning and

Program Development, Fiscal Management, Fiscal Policy Analysts, Director of Data Quality, and Director of Planning were interview. Also, community college Presidents, Deans of Academic Affairs, Directors of Institutional Research, Registrars, Deans of Students, and Directors of Data Processing were consulted.

The major study findings were the following:

1. Community colleges do not have a healthy balance between their liberal arts and practical arts. They have increasingly responded to the labor force needs of businesses and industries at the expense of a comprehensive liberal education for all students.
2. Community colleges have a very loosely structured liberal arts curriculum which is dominated by free electives.
3. Community colleges overlook the intellectual and academic needs of their students who are doing college level work in their efforts to address their high risk, non-traditional students, who have skill deficiencies.
4. Community college students have more difficulty transferring to public senior institutions than they do transferring to private colleges and universities.
5. Community college students of color do not participate in the liberal arts curriculum as much as their white classmates.

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS.....	iv
ABSTRACT.....	vi
LIST OF TABLES.....	xi
 Chapter	
1. THE PROBLEM.....	1
General Statement.....	1
Purpose of study.....	14
Definition of Terms.....	16
Significance of the study.....	42
Delimitations.....	48
2. REVIEW OF LITERATURE.....	54
Educational Opportunity.....	54
Student Preparation.....	79
Curricular Bridge.....	99
3. METHODOLOGY.....	131
Introduction.....	131
Massachusetts Higher Education System.....	131
Governance Structure.....	133
Sample.....	148
Rating Instruments.....	149
Institutional Documents.....	149
Interview Questionnaires.....	158
Statistical Information.....	159
Procedure in Gathering Data.....	160
Step 1: Letters of Introduction.....	160
Step 2: Interviews.....	161
Step 3: Correspondence.....	163
Step 4: Follow-Up Telephone Calls.....	163

4.	RESULTS OF THE STUDY.....	175
	The First Objective.....	175
	Introduction.....	175
	Direction of Public Higher Education.....	175
	Board of Regents.....	178
	Bunker Hill Community College.....	187
	Holyoke Community College.....	192
	Massachusetts Bay Community College.....	198
	Middlesex Community College.....	209
	North Shore Community College.....	214
	Quinsigamond Community College.....	221
	Roxbury Community College.....	226
	Springfield Technical Community College.....	231
	The Second Objective.....	236
	Introduction.....	236
	Demographic Information on Community College Students.....	242
	Board of Regents.....	248
	Bunker Hill Community College.....	270
	Holyoke Community College.....	296
	Massachusetts Bay Community College.....	316
	Middlesex Community College.....	316
	North Shore Community College.....	354
	Quinsigamond Community College.....	368
	Roxbury Community College.....	371
	Springfield Technical Community College.....	372
	The Third Objective.....	408
	Introduction.....	408
	Open Admissions Policy.....	408
	Curricular Programming.....	419
	Board of Regents.....	425
	Bunker Hill Community College.....	428
	Holyoke Community College.....	441
	Massachusetts Bay Community College.....	462
	Middlesex Community College.....	482
	North Shore Community College.....	504
	Quinsigamond Community College.....	527
	Roxbury Community College.....	541
	Springfield Technical Community College.....	545

5.	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS....	565
	Summary.....	565
	Conclusions.....	570
	Recommendations.....	591
	Community Colleges.....	591
	Further Research.....	597
	APPENDICES.....	600
	A. Interview Questionnaires.....	601
	B. Statistical Information Requests.....	611
	BIBLIOGRAPHY.....	623

LIST OF TABLES

Table	Page
1. Percentage of Response to Requests for Documents by Each sample Community College.....	165
2. Percentage of response to Requests for Documents by the Regents.....	168
3. Percentage of Responses to Requests for Documents by Regents and by Eight Community Colleges.....	171
4. Campus Sources of Data.....	172
5. Demographic Data of Day Students by Community College for Fall 1985.....	255
6. Day Division Headcount by Enrollment Categories by Community College for Fall 1985.....	264
7. Geographical Distribution Headcount by County by Community College for Fall 1985.....	268
8. Demographic Data for all Day Students Enrolled at Bunker Hill Community College by Academic Semester.....	273
9. Program Enrollment Summary of Day Students Enrolled at Bunker Hill Community College by Academic Semester.....	277
10. Demographic Data for Day Students Enrolled at Bunker Hill Community College by Academic Semester as Liberal Arts Majors..	283
11. Demographic Data for Day Students Enrolled at Bunker Hill Community College by Academic Semester as LA-ESL Majors.....	286
12. Demographic Data for Day Students Enrolled at Bunker Hill Community College by Academic Semester as LA-Certificate Majors.....	290

13.	Demographic Data for Day Students Enrolled at Bunker Hill Community College by Academic Semester as LA-Business Majors....	293
14.	Age Distribution of Day Students Enrolled at Holyoke Community College by Academic Semester.....	298
15.	Racial Composition of Day Students Enrolled at Holyoke Community College by Academic Semester.....	302
16.	Gender Composition of Day Students Enrolled at Holyoke Community College by Academic Semester.....	306
17.	Program Enrollment and Residence Distribution of Day Students Enrolled at Holyoke Community College by Academic Semester....	311
18.	Program Enrollment Distribution of Day Students Enrolled at Holyoke Community College by Academic Semester.....	315
19.	Age Distribution of Day Students Enrolled at Middlesex Community College by Academic Semester.....	318
20.	Racial Composition of Day Students Enrolled at Middlesex Community College by Academic Semester.....	323
21.	Gender of Day Students Enrolled at Middlesex Community College by Academic Semester....	325
22.	Program Enrollment of Day Students Enrolled at Middlesex Community College by Academic Semester.....	327
23.	Age Distribution of Day Students Enrolled at Middlesex Community College as Associate in Arts Majors by Academic Semester.....	330
24.	Racial Composition of Day Students Enrolled at Middlesex Community College as Associate in Arts Majors by Academic Semester.....	338
25.	Gender Composition of Day Students Enrolled at Middlesex Community College as Associate in Arts Majors by Academic Semester.....	346

26.	Age Distribution of Day Students Enrolled at North Shore Community College by Academic Semester.....	356
27.	Gender Composition of Day Students Enrolled at North Shore Community College by Academic Semester.....	359
28.	Racial Composition of Day Students Enrolled at North Shore Community College by Academic Semester.....	360
29.	Program Enrollment and Residence Figures of Day Students Enrolled at North Shore Community College by Academic Semester....	363
30.	Program Enrollments of Day Students Enrolled at North Shore Community College by Gender and Academic Semester.....	366
31.	Career Program Enrollments of Day Students Enrolled at North Shore Community College by Area of Concentration and by Academic Semester.....	369
32.	Projected Enrollment by Programs of Study....	371
33.	Racial Composition of Day Students Enrolled at Roxbury Community College by Academic Semester.....	373
34.	Program of Study Enrollment of Day Students Enrolled at Roxbury Community College by Academic Semester.....	375
35.	Age Distribution of Day Students Enrolled at Springfield Technical Community College by Academic Semester.....	377
36.	Gender Distribution of Day Students Enrolled at Springfield Technical Community College by Academic semester.....	381
37.	Enrollment Figures of Day Students Enrolled at Springfield Technical Community College by Academic Semester.....	383
38.	Racial Composition of Day Students Enrolled at Springfield Technical Community College by Academic Semester.....	386

39.	Racial Composition of Part-Time Day Students Enrolled at Springfield Technical Community College by Academic Semester....	390
40.	Racial Composition of Day Students Enrolled in Liberal Arts at Springfield Technical Community College by Academic Semester....	395
41.	Racial Composition of Day Students Enrolled in General/Developmental Studies at Springfield Technical Community College by Academic Semester.....	399
42.	Racial Composition of Day Students Enrolled in Associate in Science Programs at Springfield Technical Community College by Academic Semester.....	404
43.	Liberal Arts Program Requirements of Bunker Hill Community College.....	432
44.	Liberal Arts Degree Program Requirements of Bunker Hill Community College.....	434
45.	Course Enrollment and Section Size of the Liberal Arts Program of Bunker Hill Community College.....	437
46.	Course Offerings and Course Sections of Developmental Courses Offered by Holyoke Community College.....	444
47.	Liberal Arts and Sciences Transfer Option Course Requirements of Holyoke Community College.....	450
48.	Liberal Arts and Sciences Career Option Course Requirements of Holyoke Community College.....	453
49.	Liberal Arts and Sciences Transfer Option Program Requirements of Holyoke Community College.....	455
50.	Course Enrollment and Section Size of Liberal Arts and Sciences Transfer Option Courses of Holyoke Community College.....	457
51.	Course Offerings and Course sections of Developmental Courses Offered by Massachusetts Bay Community College.....	464

52.	Liberal Arts Transfer Course Requirements of Massachusetts Bay Community College....	466
53.	General Studies Program course Requirements of Massachusetts Bay Community College....	469
54.	Liberal Arts Degree Program Requirements of Massachusetts Bay Community College....	471
55.	General Studies Program Requirements of Massachusetts Bay Community College.....	473
56.	Course Enrollment and Section Size of Liberal Arts and General Studies Programs' Courses of Massachusetts Bay Community College.....	474
57.	Course Offerings and Course Sections of Developmental Courses Offered by Middlesex Community College.....	484
58.	Liberal Arts and Sciences Program Course Requirements of Middlesex Community College.....	490
59.	Liberal Studies Program Course Requirements of Middlesex Community College.....	492
60.	Liberal Arts and Sciences Degree Program Requirements of Middlesex Community College.....	495
61.	Liberal Studies Degree Program Requirements of Middlesex Community College.....	496
62.	Course Enrollments and Section Size of Liberal Arts and Liberal Studies Program Courses of Middlesex Community College....	498
63.	Course Offerings and Course Sections of Developmental Courses Offered by North Shore Community College.....	506
64.	Liberal Arts and Sciences Program Course Requirements of North Shore Community College.....	511
65.	Liberal Arts Degree Program Requirements of North Shore Community College.....	513

66.	General Studies Program Course Requirements of North Shore Community College.....	517
67.	Course Enrollment and Section Size of the Liberal Arts and General Studies Program Courses of North Shore Community College..	519
68.	Course Offerings and Course sections of Developmental Courses Offered by Quinsigamond Community College.....	529
69.	Liberal Arts and Sciences Program Course Requirements of Quinsigamond Community College.....	535
70.	Liberal Arts Degree Program Requirements of Quinsigamond Community College.....	537
71.	Course Offerings and Course sections of Developmental Studies of Springfield Technical Community College.....	547
72.	General Studies Course requirements of Springfield Technical Community College...	551
73.	General Studies Degree Program Requirements of Springfield Technical Community College.....	554
74.	Liberal Arts Transfer Course Requirements of Springfield Technical Community College.....	556
75.	Course Enrollments and Section Sizes of Liberal Arts Program at Springfield Technical community College.....	559

CHAPTER 1

THE PROBLEM

General Statement

When one thinks of American community colleges, one can best describe them as institutions which provide opportunities with excellence. Former Speaker of the U.S. House of Representatives, the Honorable Thomas P. O'Neill, Jr. (Parnell, 1985) explained that fifty years ago, the United States was a country of two classes: the wealthy and the poor. Today, the United States has a great middle class. The principal reason for this middle class is education. Because of community colleges, Americans have been given the opportunity to train themselves and to become knowledgeable in the full range of human experiences. Not only do community colleges provide opportunity with excellence, but they also provide practical education. Senator Orrin Hatch of Utah claimed that another unique characteristic of most community colleges is their extraordinary ability to respond to short term training (Parnell, 1985). The community college also has been defined as a source for the preparation of life long learners. Former Congressperson, the late Carl P. Perkins of Kentucky, believed that the knowledge explosion and the means of disseminating it are two concerns produced by the Technology Revolution (Toffler, 1980). In response to these issues, Perkins advocated support of the community college in order to "educate, reeducate, train, and retrain people several times during their life time in order to pre-

pare them to participate effectively, not only in the work place but in society" (Parnell, 1985, p. 86).

Higher education as a means of facilitating an individual's self-growth and career preparation is, indeed, alive and well in the United States. According to Dr. Dale Parnell (1985) , President of the American Association of Community and Junior Colleges, the 1983-1984 year long unduplicated head count enrollment is estimated at 10,941,830 credit and non-credit students. Of that number, 10,707,876 were enrolled in public colleges and 233,954 in private colleges. These figures did not just happen. They represent the culmination of three historical events which have impacted the course of American higher education.

The first occurrence was the establishment of the land grant university in the 1860s which combined theoretical and practical education in America. The second event was the development of the G.I. Bill in the mid-1940s. The U.S. Government invested in the men and women who served our country as members of the Armed Forces by creating a program which allowed veterans to obtain a college education with governmental financial assistance. Policy makers of this post-World War II period began to realize how education would be an investment in human resource development. The formation of the contemporary community college was the third historical development (Parnell, 1985). On July 13, 1946, President Harry Truman established the President's Commission on Higher Education. In his letter appointing

members to the Truman Commission, the President wrote:

Among the more specific questions with which I hope the Commission will concern itself are ways and means of expanding educational opportunities for all able young people; the adequacy of curricula, particularly in the fields of international affairs and social understanding; the technical institutes; the financial structure of higher education with reference to the requirements of the rapid expansion of physical facilities ... The extension of general education represented by junior colleges in this country constitutes a real contribution to democracy in education. Social, economic, and political conditions prevailing throughout the world can be solved only in terms of a lengthened period of education made available to an increasing proportion of the population (Vaughan, 1983, p.21).

The Truman Commission issued a six volume report on December 11, 1947, entitled "Higher Education for American Democracy." The report to be later known as the Community College Manifesto expressed concern about the limited educational opportunities for a large portion of the nation's citizens. In order to address this problem, the Commission called for the development of community colleges across the United States. "The Truman Commission Report became a blueprint for developing higher education in post-war America and in its phrases 'community college' first appeared" (Parnell, 1985, p. 83).

The development of community colleges did not progress at the same rate as that of four year colleges and universities. Enrollments at the baccalaureate degree awarding institutions continually grew. Educators and administrators were not yet discussing the impact of demographics on enrollments. No one was much concerned about adult part-time students

(Cross, 1985). However, as the state of the economy changed in the United States during the 1970s and early 1980s, higher education began to experience a downward slope in student enrollment (Crossland, 1980) while the marketplace, impacted by the constant ever evolving demands of the Technology Revolution (Toffler, 1980 and Naisbitt, 1984), required more non-traditional training for its perspective employees as well as training opportunities for its current employees. Peter Drucker (1981) told the Chronicle of Higher Education that the demand for education during this period was going up and not down. What was going down and fairly fast was demand for traditional education in traditional schools.

To meet the demands for new educational functions, corporations, professional associations, and non-colleges began to address this challenge. Cross (1985) stated that it is "not unusual for the education and training budgets of some large corporations to be growing at the rate of 35% per year, which exceeds by a considerable margin the explosive rate of growth of higher education in the boon years of the 1960s" (p. 5). Higher education today delivers more than a third of the organized opportunities for adults. "The remaining two-thirds [are] offered by a vast array of non-collegiate providers, many of whom offer everything colleges do and more. Industry and a cluster of government agencies offer more than 2000 courses that are endorsed by the American Council on Education as worthy of academic credit" (p. 5). Lynton (1984) stated that corporations spend more today on

the education and training of their employees than all fifty states combined spend on public higher education.

"Both the supply and demand for education are growing because the economy of the twenty-first century is dependent on the non-depletable resources of human energy and creativity" (Cross, 1985, p. 6). Education has always focused its energy on knowledge and the development of human potential. However, because of the economic importance of knowledge in the Technology Revolution (Toffler, 1980), the development of human resources has seemed to have become everyone's business (Cross, 1985). Major industries, because they claim they can not find viable academic providers for the training of their employees, maintain their own staff to meet the continuing education needs of their employees (Kost, 1980).

John Naisbitt (1984) proposed that the questions for the 1980s are "What business are we really in? Are we in the business of human development, intellectual growth, academic achievement, career development, certification, or what? And whom do we serve--eighteen year olds, forty year olds, employees, or society at large" (p. 85). Some educators are not aware of the urgency of finding answers to these questions. Cross (1985) claimed while other educators debate the complex and serious issues of the mission of higher education, industry responds more readily by adopting the broadest goal for their education and training divisions--the development of human resources. "The concentration is that

business has become dependent on human resources that are capable of generating and using the knowledge that is the capital asset of a Third Wave [Technology Revolution] economy" (p. 9).

Rosabeth Kanter (1983) claimed that there is a renaissance in business today which consists of a shift from Frederick Taylor's Second Wave principles of scientific management (Toffler, 1980) from developing a system of production to developing people. Peters and Waterman (1982) described this new approach to management as productivity through people. They advised corporations to consider their employees as the essential source of productivity gains and not automation or capital spending. Furthermore, Kanter (1983) encouraged companies to urge and support their employees in the development of their creative capacities. Robert Reich (1983) stated that the economic future of America rests on Americans themselves. Since other countries are becoming more suited for high volume, standardized industries while America is becoming more highly technological and specialized, the American economic evolution will be based on a skilled labor force and on a more flexible and less hierarchical organization of work.

Although corporate America seems to be responding to the demands of the Technology Revolution impacting its very structural and organizational fibers (Toffler, 1980), American education still remains the source of training and preparation and education of individuals who will enter the work

force at all levels: blue collar, gray collar, pink collar, and white collar. Nobel Laureate Theodore Schultz (1984) believed that space, energy, and land will not improve the welfare of the poor. What will help the poor are improvements in population quality and advances in knowledge.

American higher education faces increasingly the impact that poverty and the state of American economy has on its own missions and goals in regard to student recruitment and enrollment, curriculum development, and community services. Stephen Rose (1984), an economist, portrayed the reality of the current socio-economic status of Americans. Between 1978 and 1983, about thirteen percent of the middle portion of the middle class as defined by the Bureau of Labor Statistics disappeared. Of this thirteen percent, one quarter rose into the upper middle class category (\$41,000 per annum) and the remaining three quarters fell into the lower middle class (\$17,000 per annum). Moreover, the number of people below the poverty line (\$9,8000 per annum) increased three percent. "This downward shift represents a significant change in the nature of American social fabric" (p. 27).

An increasing stratification seems to be taking place along economic, educational, employment, and ethnic lines. Statistics have shown an increase in the number of individuals and families in the lower income stratum and below the poverty line. There also seems to be a steadily increasing gap between low and middle income families and upper income families. Janet L. Norwood, Commission of the Bureau of

Labor statistics, reported a decrease in the February 1985 unemployment rate from 6.4% to 6.2% for whites, but an increase from 14.9% to 16.3% for blacks ("Jobless Rate," Washington Post, 9 March 1985).

The American Enterprise Institute for Public Policy Research (1983) added to this portrait of the state of economy by discussing who the poor really are. According to its research, two out of three adults who meet the federal definition of poverty are women, and more than half of the poverty families are maintained by single women. Seventy percent of all AFDC [Aid to Families with Dependent Children] recipients are children. Furthermore, there has been a fifty-two percent increase in working women with infants under one year of age during the past eight years. In addition, 3.1 million children or 3,000 a day have fallen into poverty since 1979. This figure represents a three percent increase in the number of children in poverty for the past five years.

Parnell (1985) supported the belief that American higher education can not be just an observer to the socio-economic status of its students and the demands that the marketplace is placing on its students in term of their preparation and career choice.

Rather than view the poor as untapped human resources, we tend to view them as problems ... We have never really developed a national human resource development strategy in this country, particularly for non-baccalaureate degree individuals. No discussion of excellence

in education in a universal education system can be complete without considering the plight of all members of society and the tensions that motivate or inhibit them. It is time to value our human resources as much as, if not more than, we value our natural resources of oil and gas and metals (p. 33).

In view of the Community College Manifesto issued by the Truman Commission in 1947 and the current orientation of the various segments of the American higher education system, it appears that the community college is central to any discussion of providing access to opportunity for post secondary education (Ricardson, 1985). For many 18 to 22 year olds, workers, AFDC mothers, housewives, unemployed laborers, and minorities, major benefits of obtaining a two year degree are believed to be self-improvement and an increase in future earnings (Romano, 1986). In contrast to the students who begin at a four year college or university, the two year college students come from families of lower socio-economic origins [family income, educational level of parents, and parents' occupational status]; have not achieved as good a record of academic performance in high school and have lower measured academic ability; and have lower educational aspirations (Romano, 1986). For these students, the two year college can be seen as an institution which often services or their parents who are low risk takers.

These students are more [likely to be] reluctant to leave their home community to go to college or to work after college. They are more likely to select a curriculum which is vocational in

nature and holds the promise of a specific job than a curriculum like liberal arts which is broader in scope and leads to a longer run pay off. They are more likely to be [on the average] oriented toward the present than the future. [They prefer not to commit themselves to four years of schooling" (Romano, 1986, p. 13).

The challenge facing community colleges is to go beyond their students' limited and immediate expectations by offering students an access to a comprehensive liberal education which is broader in scope than the highly specialized vocational-technical education many students tend to endorse and which provides them the basis for developing life long learning competencies. Cross (1985) stated that no education, "no matter how brilliantly designed and delivered, will last a life time in a world in which entire industries are created and wiped out in a single decade" (p. 11). Students who graduate from college with an associate and/or baccalaureate degree without access to a comprehensive liberal education which promotes the cognitive skills, motivation, and capacity to pursue continuous learning will lack the basic survival skills for life in the twenty-first century.

Most recent reports concerned with educational reform have advocated the need to prepare students for active and continuous involvement in their life long learning, which is a commitment people need in order to insure productive and successful work experiences. The Study Group on the Conditions of Excellence in American Higher Education (1984) explained in its report, Involvement in Learning, that "there

is now a good deal of research evidence to suggest that the more time and effort students invest in the learning process and the more intensely they engage in their own education, the greater will be their growth and achievement, their satisfaction with their educational experiences, and their persistence in college, and the more likely they are to continue in their learning" (p. 17).

The movement toward more active self-directed learning stresses the development of the human resources required for the Third Wave Society (Toffler, 1980), which is characterized by technology that clearly has reshaped and redirected the marketplace. Naisbitt (1984) believed that the potential for individualization, for personal choice, and for multiple options is exploding all around us. He asserted that the either/or world of the 1950s is turning into the multiple option world of the 1980s. Industry, itself, is investing its financial assets on the proposition that interpersonal skills, supervision, teamwork, and leadership can be taught (Cross, 1985).

American higher education claims that it has as its mission the long range development of creative, thinking, caring human beings. However, "these qualities are hard to develop effectively in a lock step, depersonalized approach to mass education. Unfortunately, our educational system has been modeled on Second Wave (Toffler, 1980) mass production methods which are less effective in a Third Wave (Toffler, 1980) world [of synthesis of information and in-

terdependency]" (Cross, 1985, p. 20).

Reich (1983) believed that U.S. education is modeled on scientific management. Students are sorted, programmed, and controlled in a high volume, standardized production process. He explained that educational achievement is measured and quantified in order to create rules and procedures for instructors and students. Reich also claimed that success in American education, from kindergarten to graduate school, is measured by the amount of order and management control that exists in the classroom. He proposed that students can not be trained to participate in the flexible system enterprises of today's marketplace when their daily lives are dominated by high volume, standardized institutions of higher education. Instead, we are facing the possibility of a future generation of turned off learners who may have the "cognitive skills for learning under direction but who find little joy in self-directed, voluntary learning" (Cross, 1985, p. 13).

It is predicted that the occupational history of America will chronicle the steps from farmer to laborer to clerk to technician.

Technicians, that is broad technology technicians, will act as the force that holds together the thousands of potentially isolated elements in our work world. They will be the individuals who not only understand underlying principles but also have the ability to apply what they have learned. These are the generalists with specific practical skills

to address day to day challenges. The development of this kind of workers will require some new programs and approaches to education. In particular, some new thinking about vocational education will be required (Parnell, 1985, p. 16).

That segment of the American higher education system which historically responded to the need of preparing and training students for the challenges of the marketplace is the community college. It has brought vocational and technical education into the halls of academia. Community colleges traditionally have stressed that there is dignity and worth in preparing one's self for a job. However, what community colleges have failed to do is offer a broad base, comprehensive liberal approach to education that will enable the students to be the comprehensively prepared individuals sought by today's business world and baccalaureate institutions. What has occurred is that in practice, "the new career courses most often added reflect an increasing specificity of emphasis, and we continue to prepare individuals for specific jobs rather than for careers" (Parnell, 1985, p. 78). Opportunity with excellence should be defined as the provision of a comprehensive liberal education in which a balance between liberal arts and practical arts is achieved. Both are important and are needed in order to prepare the students enrolled in community colleges for the challenges of the twenty-first century.

Purpose of Study

The purpose of this study was to examine community colleges in Massachusetts in regard to their providing access to a comprehensive liberal education for students. In order to allow for differences in student populations, urban and suburban community colleges were selected. The results reflected the liberal arts curricular components of the total program of study for full-time students enrolled in degree conferring programs in the day division for the academic semesters Fall 1985, Spring 1986, Fall 1986, and Spring 1987.

First, the function of community colleges as a component of public higher education was studied. In addition to offering terminal degree programs, these institutions provide an academic transitional bridge to private and public colleges and universities. Whereas the mission statements are generated by the Massachusetts Board of Regents and supported by the colleges vis-a-vis their local Board of Trustees' approval, the goals are determined by individual colleges (Assar, 1986). Consequently, a system wide diversity rather than uniformity was found to exist in regard to the programs, services, and curricula available to day division students.

Second, the types of educational preparation available to students was reviewed. Community college graduates are recipients of certificate diplomas, Associate in Science degrees, and Associate in Arts degrees. A community college

measures its support for liberal arts by assessing inclusively the total number of students who successfully transfer to a baccalaureate degree program (Assar, 1986). Liberal arts courses for students enrolled in Associate in Science degree and certificate diploma programs are not considered in this measurement. This study made a distinction between certificate, terminal, and transfer degree programs in regard to the number of liberal arts course credits provided in each program of study.

Third, the manner in which liberal arts impact all programs' of study curricula was examined. The presidents of the community colleges determine, in the long run, the number of liberal arts courses which will be available to students (Assar, 1986). Therefore, it was found that certificate, terminal, and transfer degree programs of one community college may differ from similar programs of study of another community college in terms of core course requirements, number of electives, and number of liberal arts courses required.

The following research objectives guided this study:

- . To identify the extent to which the mission and goals of community colleges in Massachusetts include liberal arts learning
- . To investigate the opportunities for community college students for expressed liberal arts curriculum

- . To examine the extent to which community college students are participating in the expressed liberal arts curriculum.

Definition of Terms

The why of learning is more important than the how. As Nietzsche (1844-1900) once stated, "He who has a why to live for can bear with almost any how" (Parnell, 1985, p. 40). The whys and wherefores of community colleges make them that branch of education which does provide access and outreach to the community.

In a nation with a moral commitment to access and opportunity, community colleges are the accessible institutions. In a nation with a tremendous need for skilled workers, community colleges are fulfilling that need. They are helping a host of citizens discover that marketable skills give them liberating competence and the confidence that they can do something well ... that they can cope with real life. In a nation leading in the information age, community colleges are the institutions that are helping trigger economic revitalization by matching skills to the needs of the employers. In a nation that emphasizes accountability, community colleges are a cost effective part of higher education. In a nation deeply concerned about the quality of life, community colleges are leading the way by providing quality of life experiences for all levels of working men and women ... (Parnell, 1985, p. 99).

To understand the whys and wherefores of community colleges, we must comprehend those terms which define their unique characteristics. The Associate Degree Program is the basis of the mission of community colleges. It reflects the educational attainment goals the colleges have their

students. Being an integrating force for the colleges, the associate degree acts as student guide and necessitates students' commitment for program completion. It indicates "that the holder has developed proficiencies sufficient to prepare for upper division collegiate work or to enter directly into an occupation with confidence. The degree should be awarded only for completion for a coherent program of study designed for a specific purpose" (Parnell, 1985, pp. 101-102).

On the other hand, community colleges offer Certificate Diploma Programs which respond to the need for short term, entry level job training sometimes with less than one year of study. Many career programs have developed certificate programs which require up to thirty credits of course work which stress skill training (Traicoff, 1983a).

Bunker Hill Community College awards Certificates of Achievements in Human Services and Management and Roxbury Community College awards a Certificate of Achievement in Early Childhood Education. In each case, the certificate is awarded upon the successful completion of a core curriculum (four required courses) and two electives in that field of study. In most cases, a certificate can be earned in two or three semesters. The courses included in these certificate programs are also applicable to associate degree programs at each of the colleges (Coard, 1986a, p. 6).

Another program community colleges offer is field based education known as Cooperative Education and Internship Programs. This program enables students to alternate periods of traditional academic studies with periods of related paid employment. Customarily, full periods of academic

study are alternated with equivalent periods of employment in areas related to the students' majors. In some cases, Co-operative Education "takes on the form of parallel work-study semester[s]" (Bartley, 1982, p. A 2).

The Associate in Arts Degree is directed to those majoring in the social sciences, humanities, liberal arts, fine arts, etc. The Associate in Science Degree is for those students who major in Business, Nursing, Engineering, Sciences, Health Sciences, or Agriculture and prescribes substantial undergraduate requirements in mathematics and sciences. Most students who graduate with either degree usually transfer as juniors to baccalaureate degree granting institutions. However, the Associate in Applied Sciences Degree leads "the individual directly to employment in a specific career. Other titles are Associate in Business, Associate in Data Processing, and Associate in Applied Arts and Sciences. In some instances, particularly in the health related fields, the degree is a prerequisite for taking a licensing examination" (Parnell, 1985, p. 104). The objective of this last degree is to increase and enhance employment opportunities.

Although associate degree occupational degree programs are designed primarily to prepare students for employment, they can no longer be considered terminal. In addition, to the necessity for life long learning, students can expect to make several career changes during their lives. Further education, including work toward a baccalaureate degree, should be anticipated in the design of the Associate of Ap-

plied Science curriculum (Shared Vision Task Force, 1987, p. 3).

A college transfer program is essentially designed to prepare students with the course credits needed to transfer to a four year college or university in order to pursue a baccalaureate degree.

Students are allowed to transfer credits without slippage ... [Furthermore], it provides a second chance for many students [such as] those who, for all kinds of reasons, did not succeed their first time around in a traditional four year college or university ... [The] community college accepts them with open arms and provides additional learning support services. These students find they can now succeed in baccalaureate degree programs (Parnell, 1985, pp. 96-97).

The Commonwealth of Massachusetts Transfer Compact facilitates the transfer of community college students to a state supported four year college or university. Transfer credit will be granted to qualified students for all college level courses taken as a part of the associate degree.

Eligible students must meet the following requirements:

- . Complete an Associate in Arts or an Associate in Science transfer degree
- . Complete a minimum of 60 credits and a maximum of 66 credits of undergraduate college level study
- . Achieve a grade point average of no less than 2.0 (Shively, 1986c).

It should be noted that students who transfer by means of the Compact to public four year institutions will be subject to the same requirements as students who are enrolled as freshmen. Moreover, these students will be guaranteed acceptance of all degree credits earned at the community college. The public baccalaureate degree awarding institutions "will accept a D toward a major only if it does so for native students" (Shively, 1986c, p. 46). Native students are students who are enrolled in the four year institutions as freshmen (Commonwealth Transfer Compact, 1984, p. i). There are two exceptions. The Compact does not apply to the Massachusetts College of Art or the Massachusetts Maritime Academy. Secondly, a student previously enrolled at a state college or university who subsequently completes the associate degree at a community college does not come under the protection of this Compact.

The Associate in Arts Transfer Degree for Massachusetts community colleges should involve a minimum of 33 semester hours in general education. As part of these 33 semester hours, each community college will require students to complete a minimum of semester hours in each of the following: English Composition (6 semester hours); behavioral and social sciences (9 semester hours); humanities and fine arts (9 semester hours); and mathematics and natural sciences (9 semester hours). These credits are sti-

pulated by the Transfer Compact.

On the other hand, the Associate in Science Transfer Degree recognizes a greater emphasis on the scientific, mathematic, and technical competencies demanded of students and therefore includes a greater concentration in these disciplines. Each community college is encouraged to develop a general education concentration within the transfer parameters, respective of the particular degree discipline offered (Commonwealth Transfer Compact, 1984). Furthermore, the Regents encourage public colleges and universities to develop admission policies that will consider all factors indicating the possibility of success in its upper division for transfer students who have not earned the Associate in Arts or the Associate in Science transfer degree.

The degree and certificate programs of community colleges represent these colleges' commitment to helping supply the United States a skilled and knowledgeable workforce. "The real competition for jobs in the future will be between the well educated and the not so well educated ... The connection between higher unemployment rates and low levels of education shows the importance of education in a job market that increasingly requires more training" (Occupational Handbook, 1984). To meet the challenges of the marketplace, community colleges need to provide access to a Comprehensive Education for students. "In today's technological society, [they] simply can not have first rate

technical education programs unless they are integrated with liberal arts programs" (Parnell, 1985, p. 95).

Dartmouth College, for example, was the first baccalaureate institution in the United States in 1867 to acknowledge the importance of a comprehensive liberal education for non-Bachelor in Arts degree students. It established a professional engineering education program which was based on General Education. In this model, engineering students addressed the liberal arts component first and then concentrated on the specialized engineering education. As a result, their education as professional engineers takes five years. Moreover, the Dartmouth approach enriches liberal arts. " ... Engineering is offered as an undergraduate major through the faculty of Liberal Arts and Sciences, and the curriculum stresses the fundamentals of engineering, without premature specialization. Engineering professors hold dual appointments in Liberal Arts and Sciences and in the Graduate school of Engineering; that is, faculty of all undergraduate divisions are direct peers [and] not 'separate but equal'" (Hutchinson, 1987, p. 4).

In addition to extensive math and science courses, technical programs should incorporate a literary base, an understanding of our economic system, and exposure to cultures other than the students' own in order to comprehensively prepare our students for life long learning

skills. A Comprehensive Liberal Education should not be confused with General Education. General education can best be described as a core curriculum that consists of a collection of courses and educational experiences shared by all degree bearing candidates. Academic courses for these students often are general science, general social studies, general math, and remedial English. There is little evidence of any type of focus or concentration (Astin, 1982 and Wagenaur, 1981). It should be noted, however, that a Basic Skills Core should not be considered general education. The basic skills core focused on the student's ability to demonstrate proficiency in English and math (Traicoff, 1983a). Professor Lauter-Klatell (1987) of the School of Education of Wheelock College described basic skills as "tools to facilitate learning. They provide structures which allow for the creation of new ideas in an organized way ... [Lauter-Klatell advised that] ... overemphasizing the structure of learning and neglecting its core is like building the frame of a house without any thought to the interior--an empty shell" (p. 23).

President Brunetta Wolfman (1985a) of Roxbury Community College explained that General Education in Massachusetts is defined in terms of course requirements. For example, the 1984 Massachusetts Transfer Compact stipulates the number of credits students need to acquire from the liberal arts curriculum. Career degree students are to take twenty credits

of general education courses. While six credits have to be in English Composition, the remaining credits may be chosen by the students from humanities, math, science, and social science courses. Wolfman commented that "there is some concern that the low enrollments in the humanities and social science courses may mean that students are not fulfilling their general education requirements" (p. 57).

Furthermore, President Andrew Scibelli (1987b) of Springfield Technical Community College confirmed that students enrolled in degree programs are required to take a minimum of twenty credits in general education. He explained that the purpose of general education is as follows:

to develop in students the capacity for critical thinking ; the ability to communicate effectively; an appreciation for the arts and humanities; and an understanding of the historic basis of our modern technological society. General education also aims to assist in the development of people who are educated in mind, responsive to civic and social obligations, capable of adjusting to change and [to learn] for life (p. 32).

Springfield Tech proposed that a general education requirement and distribution for all degree granting programs should be the following:

- . Three college level courses in each of the following skill areas: (a) language skills; (b) numbers; and (c) computer literacy
- . One interdisciplinary courses in each of the following areas: (a) humanities; (b) social sciences; and (c) natural sciences
- . An acceptable distribution of six credits in courses in the humanities, social sciences,

math, and natural science" (Scibelli, 1987b, p. 34).

Part of the discussion concerning a Comprehensive Liberal Education focuses on the issue of what constitutes a Liberal Arts Program. Professor Lawrence Franko (1987), College of Management, University of Massachusetts, Boston, maintained that liberal arts has "too often become a code word for education devoid of science, mathematics, or just plain old arithmetic, algebra, and numbers" (p. 26). President George Traicoff (1983a) affirmed that community colleges have addressed this coding. For example, at North Shore Community College, Traicoff indicated that liberal arts faculty completed a revision of the liberal arts curriculum to include definitions of course concentrations in the fine arts, humanities, English, math, science, social science, and computer technology. Liberal arts enable a student to focus his/her efforts in a special area of interest and, at the same time, build an educational base for further study at a four year college or university. In addition to the core requirements, courses specifically prescribed in the curriculum of a program of study, each student must complete twenty-one credits of electives to meet the sixty to sixty-two credit requirements of the Associate in Arts degree (Shively, 1986c). Core requirements, which total thirty-nine to forty-one credits, are as follows: College English II and III (6 credits); mathematics (6 credits); humanities

(3 credits); social sciences (6 credits); sciences (6-8 credits); behavioral sciences (6 credits); and literature (6 credits).

Students planning to transfer to a four year institution should choose a liberal arts option which they plan to major in order to complement the core requirements. This choice will establish a foundation in the selected discipline and provide a focus for the student in selecting electives. Liberal arts options are suggested groupings of courses in particular areas for students interested in transfer. These options available are in the areas of behavioral sciences, business, communication, computer science, English, fine arts, foreign languages, mathematics, physics, engineering, and English as a Second Language. Such options vary according to each community college (Assar, 1986).

On the other hand, electives are courses not especially prescribed in the curriculum of any program of study. There are basic elective groups which are made available to students at all community colleges in Massachusetts.

Behavioral Sciences Electives include all psychology and sociology courses.

Career Electives are courses normally in the student's major as approved by the respective department.

Humanities Electives include the fine, creative, and performing arts, literature, American Studies,

and foreign languages. Philosophy courses may be considered either as social sciences or humanities electives.

Liberal Arts Electives include all courses that meet humanities, behavioral sciences, mathematics, social sciences, and sciences elective requirements.

Sciences Electives include those courses in the sciences and physics.

Social Sciences Electives include history, government, and economics (Shively, 1986c, p. 41).

When considering the degree offerings of community colleges--Associate in Arts, Associate in Science, and Associate in Applied Sciences, students' goals, namely their reasons for choosing a particular curriculum, should be considered. Another factor is the program of study's quality--"its merits as evidenced by accrediting boards, the program review process, outside evaluators, and other appropriate indicators" (Bartley, 1985b, p. 48). A third factor is the degree program's centrality to the community college's mission, in other words, the degree to which the purpose and objectives of the program's curriculum are related to the college's mission. A fourth factor to consider when examining a degree program is to study its curriculum persistence rate which is "the percentage of full and part-time students who have not graduated, are eligible to return, and who enroll in the same curriculum in the subsequent semester" (Bartley, 1985b, p. 47).

President David Bartley (1985b) of Holyoke Community

College indicated that community college curricula can be defined as follows:

- . Growth Oriented Curricula reflect programs of study which have shown an overall rate of growth in applications and enrollments that exceeds the growth experienced by the college as a whole and a rate of related placement equal to or greater than the all college rate will be considered growth oriented curricula.
- . Declining Demand Curricula have programs which show an overall decline of ten percent or more in both applications and enrollments or a rate of related placement that is below the all college rate by ten percent or more in two of the past three years.
- . Stable Demand Curricula include programs which have exhibited both of the following characteristics over a four year period:
 - (1) a stable or fluctuating pattern of applications and total enrollments in which overall rate fluctuates are in a range of plus or minus nine percent from the all college rate and
 - (2) a rate of related placement in two of the three years which fluctuates in a range of plus or minus nine percent from the all college rate (Bartley, 1983a, p. 29).

When one studies community college curriculum, one should not overlook the course offerings. A career course is considered one for which the "main design feature is application toward an occupation at the degree level of the institution" (Bartley, 1982, p. A2). A developmental course, described as pre-collegiate in essence, enables the student to improve and strengthen her/his basic skills in reading, writing, and math. An honors course

is a class that has limited enrollment for exceptionally academic and intellectually capable students. Pre-collegiate courses are those courses "required of students graduating from high school in the general or college board programs" (p. A4). Moreover, a transfer course is one which a student may apply toward a baccalaureate degree at a receiving four year institution whereas a terminal course is one pertaining to college level programs not designed for transfer to other institutions of higher education (Bartley, 1982, p. A4). The graduation rate of community college students, namely the number of graduates in a curriculum as measured against the total freshmen enrollment two years earlier, reflects the students' goals which influenced their choice of degree. On the other hand, the related placement rate of these graduates represents the percentage of them who transfer or find employment in fields related to their program concentration at the community college. The quality of placement is the "extent to which [community college] graduates obtain positions related to their field of study or transfer to a senior institution at a level consistent with the purpose and goals of the curriculum" (Bartley, 1985b, p. 47).

Concern for the academic preparation of students should not be limited by their day of graduation. Competencies for effective life long learning should also be addressed. If the student has not developed reading speed

and comprehension skills, analytical skills, memory training skills, problem solving skills, decision making skills, synthesizing skills, human relation skills, computational skills, and computer skills, "he or she has been doomed forever to educational purgatory" (Parnell, 1985, p. 26).

The agency of the Commonwealth of Massachusetts which strives to prevent such a purgatory is the Board of Regents of Higher Education which was created in 1980 by Chapter 15A to oversee the state's 29 public colleges and universities. The Board is composed of 15 members who serve for five year terms plus one student member whose slot is rotated yearly. Members are appointed by the Governor (Blake, 1986, p. 23). Moreover, the Board represents a central governing body with strong budgetary and programmatic authority with individual boards of trustees clearly intended to have substantial responsibility for the management and administration of individual institutions. The Regents not only have governing authority over all public institutions but are also charged with overseeing the process of private sector charter and licensing review and approval (Duff, 1982).

The Regents put forth the mission of community colleges which is a statement of philosophy that establishes the basic purpose for the community college's existence. The community colleges, in turn, issue their own mission

statements (Traicoff, 1983a). In order to fulfill the institutional mission, community colleges must address their goals which are general statements of desired outcomes to be achieved. In turn, objectives, which are "specific measurable outcomes or milestones to be achieved in order to fulfill institutional goals" (Traicoff, 1983a, p. 9) are addressed by community colleges. Next, community colleges must assess their resources--financial, physical, and human--in order to implement and fulfill their objectives and then enact implementation strategies which are specific actions needed to complete their institutional objectives (Traicoff, 1983a). These strategies include budgetary requirements and a timeline (Van Winkle, 1985b). Planning is the key to the community colleges' fulfillment of their goals and objectives. A long range planning period is one of three years or more while a short range planning period consists of two years during which time a proposed budget is completed with maximum future data and commitment available (Bartley, 1982).

During the planning periods, planning assumptions are made. These assumptions are propositions "Describing future conditions in the external environment, most of which the college has little control over, but that will probably affect the college in its efforts to deliver programs and services. The degree of certainty will determine the level of precision that is allowed in planning"

(Traicoff, 1983a, p. 9). On the other hand, institutional research is the collection, analysis, and presentation of data upon which community colleges make their decisions (Bartley, 1982). In regard to data collection, directors of data processing use the term roll over to describe the process by which information about students' course selections is transferred to students' transcripts shortly after the end of the semester in question (McCann, 1986). Another shop term used by these directors as well as by the Regents' Director of Data Quality is the phrase data on tape. Data on tape means that the Regents have the data stored on computer tapes, but these directors have not examined the tapes in terms of how clean they are in regard to the number of coding errors and missing data before they produce printed copies of the data. In the past three years, only ten percent of the data received by the Regents from the entire Massachusetts public higher education system has been thoroughly processed due to poor resources and insufficient staff. Ronald Biron (1987), Regents' Director of Data Quality, indicated that his staff has decreased forty percent while the data coming from the community colleges to the Regents have increased.

The Regents are especially concerned about the instructional cost per student of a particular curriculum expressed on a full-time equivalent student basis as it impacts the higher education budget (Bartley, 1985b). Head count indi-

cates the actual number of students enrolled in credit courses at the community colleges (Shively, 1987b). When community colleges discuss total enrollment, they refer to the total number of freshmen, sophomore, and unclassified students who are enrolled in a curriculum on a part-time or full-time basis (Bartley, 1985b). President George Traicoff (1984a) explained that recent enrollment trends of community colleges demonstrate that the colleges need to enroll considerably larger head counts in order to sustain projected FTEs--full-time equivalencies. What is happening is that community colleges are experiencing increasing numbers of part-time students which translate into reduced credit hours and then in reduced state funding. A student is considered part-time if she/he is enrolled for fewer than 12 semester hours during a semester (Bartley, 1982). The more FTEs a community college has, the greater allocations it may receive from the State Legislature.

If a larger percentage of currently enrolled students take a larger number of credits, the College's total credit hour total and FTE increases. This is a fact which can not be ignored. Developing strategies to augment credit hours where possible is simply another vital component to ensuring the maintenance and expansion of enrollments.

Also, significant numbers of college employees are enrolled in college credit courses offered in the evening. As part of a professional development effort, opportunities should be provided to employees to take job related and professional development courses during the day which will augment day credit hours (Traicoff, 1984c, p. 19).

As the Regents' Fiscal Policy Analyst Trisch Kruza (1987) explained, enrollment is based on conversion of course load to credit hours. In Massachusetts, at the community college level, to be a full-time equivalency student means that a student needs to take at least three courses or nine credits. It should be noted that for a community college student to graduate in the expected amount of time, namely two years, she/he needs to take fifteen credits per semester. However, in terms of receiving federal aid for tuition, community college students need to take at least twelve credits per semester. A promised FTE is the certain level of enrollment that a community college commits itself to fulfill. An anticipated FTE is more of an actual figure based on pre-registration and registration figures but not on the figures after the drop-add period. Projected FTE occurred as a result of a 1986 budget process revision. It implies a level of commitment without financial considerations incorporated in the budget formula of the same fiscal year. No dollars are associated with enrollment as in previous budget formulæ used prior to 1986. The projected FTE figures are calculated after drop-add occurs.

According to Karen Sayles (1987), a Regents' Fiscal Policy Analyst, estimated FTE is a phrase synonymous with the term--projected FTE. She explained that the term projected FTE supplanted the phrase promised FTE more than the phrase anticipated FTE. Also, the projected FTE calcula-

tions are used to define a more structured estimate of student enrollment, indicating the what, where, and why of each community college's level of enrollment. Furthermore, Sayles confirmed that the enrollment credit conversion for FTE [Higher Education General Information Survey] status, once based on federal criteria and now adopted state wide, is as follows: FTE is fifteen credits for community college students. However, to be a full-time student at community colleges in regard to tuition costs and federal aid, a minimum of twelve credits is required. In order to graduate in the required amount of time, namely in two years, a community college student would need to take fifteen credits per semester for four semesters. In regard to enrollment figures, Kruza (1987) indicated that state supported students are those enrolled in the day division and those labeled non-state supported students are those enrolled in the Division of Continuing Education. At times, community colleges address the issue of institutional enrollment planning. Their projection represents achievable targets based on calculated increases in student demand for programmatic offerings and implementation of a target marketing approach design to increase market shares of steady markets as well as to develop new markets (Traicoff, 1986a).

When discussing the scope of enrollment and its impact on community college budgets, a distinction is made between

traditional and non-traditional enrollments. Traditional enrollment represents a class of students, the majority of whom are 18-20 years of age and the minority of whom are of other age groupings (Bartley, 1982). In contrast, non-traditional enrollment are those students who are not a segment of the continuing flow of students from high school and who are from groups that have not been served traditionally by higher education such as handicapped, minority, and limited English speaking students of all ages. In the non-traditional group, adult students are considered those students 21 years of age and older. Minority students are "those students generally Black, Hispanic American, American Indian, Asian American as well as others classified by the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972" (Bartley, 1982, p. A3). Another category represents those students who are considered high risk students. These students are not academically prepared to enter into regular academic and career programs of study. These students need remedial and prerequisite skill building programs before assuming the course requirements of any college program of study (Scibelli, 1985a). New State Department of Education guidelines let community colleges include in the enrollment figures of disadvantaged students those students who receive PELL Grants (Cronin, 1986). Still another group of non-traditional students are Displaced

Homemakers. Greene (1987) stated that the Displaced Homemaker Network claims Massachusetts has 322,274 displaced homemakers. According to the Network, a displaced homemaker is the following type of woman:

[She is] a woman whose principal job has been homemaking and who has lost her main source of income because of divorce, separation, widowhood, disability or long term unemployment of a spouse or because she lost her eligibility for public assistance.

Displaced homemakers come from a wide range of age and ethnic backgrounds ... The common denominator in most [cases] is a lack of recent job history, training, or education. Nearly 75% of the displaced homemakers are aged 55 or older, and the older the displaced homemaker is, the more likely she is to be unemployed. The education level of the older displaced homemaker is also likely to be lower ... Among the younger displaced homemakers, poverty and the presence of young children create particular problems. Almost 75% of the displaced homemakers aged 20 to 24 are living in poverty [with children]. Displaced homemakers who are Black or Hispanic are even more likely to have children in their care (Greene, 1987, p. 5).

The Regents have established the Open Admissions Policy in order to facilitate the enrollment of both traditional and non-traditional students at community colleges in Massachusetts. This open admissions policy has no quota nor unique selective criteria (Bartley, 1982). It allows "... students whose previous academic achievement would not have allowed them, years ago, to compete for entry into higher education ... and holds out the promise of fulfillment through the acquisition of a degree or certificate which will credential them for higher level of

employment or transfer into a baccalaureate program" (Houlihan, 1983b, p. 1). Understandably, attrition plays a factor in regard to enrollment so much so that support services, non-classroom activities, are designed to allow the students to function well in the classroom as well as to reduce the rate of students "exclusive of graduates that fail to reenroll for the subsequent term--voluntarily or involuntarily" (Bartley, 1982, p. A2). In order to increase retention for that component of a class that does reenroll for the subsequent term, prescriptive advising is done by the community colleges. This process is one in which appropriate college personnel review students' entry tests and plan their semester course loads accordingly (Houlihan, 1986a). For these students who are tested at basic levels in any or all of three skill areas of reading, writing, and computing, self-paced, competency based learning, a flexible learning process, is offered.

The nature of competency based instruction requires that a student master one skill before she/he proceeds to the next. The interaction of the learning facilitator with the student as she/he masters each discrete skill and progresses to the next is critical [in] this format of instruction ... competency based learning materials, though costly, are designed specifically to require skill mastery in a sequence individually designed for each student ... It is expected that disadvantaged students completing a sequence of competency based courses in reading, mathematics, and writing would demonstrate

competency at an acceptable academic level in an exit testing program" (Van Winkle, 1985a, p. 90).

In addition to degrees and certificate diplomas, community colleges also offer various programs. Cross registration is a process of course registration conducted between two or more institutions of higher education (Bartley, 1982, p. A3). One form of cross registration is the 2 + 2 Program. This program may apply to the cooperative transfer articulation between a high school and community college in which an integrated four year program is offered to a student whose last two years at high school are transferred directly to the first two years of a college education at the community college level or between a community college and four year institution in which an integrated four year program is offered to a student whose community college two year course work is transferred to the four year public college or university by means of the Massachusetts Transfer Compact (Traicoff, 1987). A 1+1+2 Program "integrates vocational technical high school programs with a second year of community college science and general education, transferring the whole program to a senior institutional baccalaureate offering" (Van Winkle, 1984a, p. 3). An Inverted 2+2 Program is a means by which community colleges offer a student, who has learned junior and senior level knowledge and expertise due to her/his practical experience, the freshman and sophomore years

for a Bachelor in Science Degree in Technology (Van Winkle, 1987).

Adult and Continuing Education Programs are essentially non-credit and credit and are designed for adults and out of school youths who want to learn in order to upgrade themselves; to acquire a new skill; or to retrain for new job skills. These "programs are for professional or career advancement, study of governmental problems, expansion of cultural knowledge and interest, and other course work that are not generally degree oriented" (Bartley, 1982, p. A2). Community Service Programs, another aspect of the divisions of Continuing Education, provide seminars, work shops, and special courses to meet the demands and/or needs of the community at large serviced by respective community colleges. Finally, Developmental Education Programs help people develop the proficiencies to be life long learners. "[They] also help individuals remove the educational barriers that impede progress toward their goals. That barrier may be reading speed, writing skills, computational deficiencies, memory training, problem solving skills, or analytical skills. The emphasis ... is on diagnosis, prescription, and program placement" (Parnell, 1985, p. 98).

The National Commission on Excellence (1983) believed that the goals of equity and high quality schooling have profound and practical meanings for our economy and soci-

ety. It stressed that we can not permit one to yield to the other in principle or in practice. According to David Gardner (1983), to yield would deny students an opportunity to learn and live according to their dreams and abilities. It also would result in a generalized accommodation to mediocrity in our society on the one hand or the establishment of an undemocratic elitism on the other.

In response to the issue of mediocrity, tracking patterns have sprung from the traditional division of arts into the liberal and fine arts and the practical arts even at the community college level. Although the American education system is derived from an elitist philosophy, the populist tradition bloomed early as more and more individuals saw education as their pathway into the economic mainstream of American life (Parnell, 1985). Consequently, rigid boundaries were drawn between liberal and practical arts although one may assume that those boundaries create an unnecessary tension.

The liberal and fine arts bring meaning to life in many ways and liberate the individual by developing the creative and spiritual senses. The practical arts bring a focus to life that helps individuals move from dependence to independence; few experiences are more liberating than developing vocational competence. Clearly, the liberal, fine, and practical arts must move closer together (Parnell, 1985, p. 26).

If for no other reason, the demands of the Technology Revolution will require the transformation of track-

ing systems in curriculum to a comprehensive liberal curriculum which merges the liberal arts and practical arts.

Significance of the Study

President Theodore Roosevelt believed that if a democracy is to be considered great, it must be progressive. The National Commission on Excellence in Education (1983) advised that the future of our country is fundamentally based on the education of our people. Furthermore, Parnell (1985) contended that such progressiveness exists in education in terms of excellence and the desire to improve the quality of life with education. However, Cross (1985) observed that "in the literature and conversations of higher education, there is more concern about what the future will do to higher education than what higher education can do for the future. Ironically, much of the planning for higher ed's future is done by looking backward at the birth rate eighteen years ago rather than by looking forward to the needs of the nation" (p. 2).

The reality which faces higher education today is that more and more young people emerge from high school ready neither for college nor for work (The National Commission on Excellence in Education, 1983). Moreover, almost one half of Hispanic high school students in the country drop out before graduating from high school. This situation represents more than double the rate of black students and three times the rate of white students.

Forty percent of the Hispanic drop outs never complete the tenth grade ("Flaws in Education ...," Washington Post, 29 January 1985). Raspberry (1984) defined the victims of socio-economic disparity as the unskilled, uneducated, unambitious, and economically crippled underclasses. He believed that we need aid the poor to understand how they can translate opportunity into improvement of their quality of life.

The challenge is not identifying winners; it is making winners out of ordinary people. That is the overwhelming purpose of education. Yet, historically, in most of the periods emphasizing excellence, education has reverted to selecting winners rather than creating them (Cross, 1984). Presently, the gap between the well educated and the poorly educated is actually growing as opportunities for adult learning increase (Cross, 1981). Cross contended that current research demonstrates that the more formal education individuals acquire, the more likely they are to be life long learners.

Adults are, by and large, volunteer learners, and motivation is as important as skill development. An adult who can not or will not engage in continuous learning is likely to become one of our most serious social and economic problems in the twenty-first century. The new class of educationally disadvantaged will consist of adults who have lost confidence in themselves as learners and who lack either the skills or the will to learn (Cross, 1985, p. 13).

Parnell (1985) believed that American education tra-

ditionally has favored Plato's ideas of classical education in comparison to the more practical concepts of Aristotle.

In fact, an important body of leaders in this country today holds that anything called vocational education has no place in the school curriculum ... [and] that the term education refers only to the development of the intellectual proficiencies and knowledge dissemination. Socrates followed this line of logic. This is the only education, which upon our view, deserves the name; that the only sort of training which aims at the acquisition of wealth or bodily strength, or mere cleverness apart from intelligence or justice, is mean and illiberal, and is not worthy to be called education at all (Parnell, 1985, p. 57).

Lynton (1984) stated that higher education seems to concentrate its attention on the acquisition of knowledge and no longer on the competence to use it. He contended that graduates from two year and four year institutions today should expect to have been prepared and provided with skills for life long learning on and off their jobs. Cross (1985) supported Lynton by indicating that "the greatest change would require a shift away from the current emphasis on the acquisition of information toward its utilization. Inert information has little or no effect on development. It must be acted upon by the learner in order to make a difference" (p. 15). Today, educators are challenged to make a more human and more personalized enterprise of higher education in order to meet the diversity of student abilities, goals, socio-

economic status, and cultural backgrounds.

The significance of education is not restricted to the higher order of talent. A complex society is dependent on the capacity of people at every level to read and write; to make difficult judgments; and to act in the light of extensive information. When there isn't a many leveled base of trained talent on which to build, modern social and economic developments are simply impossible. Furthermore, if the base were to disappear suddenly in any complex society, the whole intricate interlocking mechanisms would come to a halt (John Gardner, 1984).

Although the "establishment of a public [education] system in the [U.S.] based upon the Platonic intellectual tradition has tended toward an elitist conception of its functions; has emphasized its selective characteristics; and has at least partially abrogated its responsibilities" (Parnell, 1985, p. 57), there does exist a segment of higher education which addresses the issue of access to opportunity with excellence. That segment is the community college. It is "likely to promote social mobility of its students to a greater degree than any other type of schooling" (Romano, 1980, p. 7) as well as provide students with expanded educational opportunities. "In fact, in their early working years, the two year graduate's earnings might be expected to rise more rapidly than those of the four year graduate because the former's edu-

cation is more likely to be a job specific and specialized than the latter's education. The broader objectives of the typical four year education, especially in the liberal arts, might be expected to pay off over a larger time period" (Romano, 1986, p. 11) in terms of higher paying professional occupations.

Community colleges provide access for students to the following:

- . First two years of a baccalaureate degree program
- . One or two year vocational and technical programs
 - Immediate employment
 - Upgrade present skills
- . Short term training or retraining
- . Unlimited remediation in writing, math, reading, ESL
- . Individual credit courses for personal enrichment
- . Recreation and leisure time activities (Richardson, 1985, p. 3).

There is a need to create a better balance between education for independence and education for teamwork. Business executives indicate that college students are poorly prepared to cope with organizational and interpersonal relationships. Most of the education that employees have felt compelled to provide themselves is heavily oriented toward developing skills in supervising people and in working in teams (Lynton, 1984). It is clear that more comprehensive skills must be developed for the work force facing the challenges of the Technology Revolution (Goldhammer and Taylor, 1972; Toffler,

1980; and Naisbitt, 1984). More sophisticated manual as well as conceptual skills are in demand. "Tasks once reserved for baccalaureate degree or advanced degree [holders] will be assumed by those with fewer years of educational training [downskilling], and all workers will [have to continue] to learn through their careers in order to remain useful" (Parnell, 1985, p. 11).

Our society grows technically and scientifically more sophisticated, yet continues to produce an increasing number of individuals who are uneducated, unskilled, and unable to cope with these technological changes ... We do estimate that some 23 million individuals can not read, write, or compute at a functional level. We do know that there are still seven to eight million individuals unemployed and another three to four million working part-time but looking for full-time work. We also know that the nature of work is shifting from blue collar labor to pink collar clerical to gray collar technical. We also know that a single inoculation of education for the young is no longer sufficient for a life time (Parnell, 1985, p. 21).

Although community colleges have brought vocational and technical education into the halls of academia, they may have not provided a broad base systems approach. The career courses most often added to the colleges' curricula reflect an increasing specificity of emphasis. Unfortunately, such specificity does not promote the development of a cluster of skills needed to become the worker or professional America needs one who

. understands the basic principles of technology in an information age saturated with

- . the use of technology
- . connects practice and theory in the work world
- . identifies problems and then analyzes, tests, and trouble shoots to find solutions
- . integrates the interests of complementary work areas
- . works independently with a network of individuals much of the time, under the general supervision of a high skilled frequently more narrowly specialized professional
- . works willingly and well with his/her hands as well as with the brain
- . has mastered a basic skills package that includes a core of competence in math, science, computer science, and communications
- . is liberally educated to function competently as a citizen ... a consumer
- . has developed proficiencies to be a life long learner (Parnell, 1985, p. 14).

Focusing on either an academic or a vocational-technical direction at the expense of a comprehensive liberal education does not serve the students well. Offering a general education option for students who do not work well in either track does not, in fact, prepare the students for the challenge of the future.

Delimitations

This study examined the role of comprehensive liberal education as a programmatic policy concern of the community college system in Massachusetts. In doing this research, the Liberal Arts and Sciences program was studied. The degree of specialization in liberal arts and its impact on students' total academic preparation were assessed only at the community college level in Massachusetts.

This study did not examine the highly decentralized educational structure of American education.

There are 1221 public and private two year community, technical, and junior colleges; 1992 public and private four year colleges and universities; and an estimated 6000 proprietary [private] technical schools. The private colleges operate in a largely autonomous manner. The public two and four year colleges operate under local board of trustees or as a part of a state university system or an independent state system operating one segment of colleges (Parnell, 1985, p. 44).

Neither did this study scrutinize the Massachusetts public higher education system. It is governed by a Board of Regents with strong budgetary and programmatic authority with individual boards of trustees clearly intended to have substantial responsibility for the management and administration of individual institutions (Duff, 1982). "The System consists of five universities (approximately 55,610 students); nine colleges (about 29,148 students); and fifteen community colleges (approximately 39,008). All levels represent about 123,766 full-time day students" (Blake, 1986, p. 23). The study focused on the public two year community colleges. However, not all of the fifteen community colleges were included.

Furthermore, this study did not explore the relationship between the Regents and the executive and legislative branches of state government and local boards of trustees. It did not examine the degree of citizen and political support vital to public higher education which this relation-

ship may develop for the Commonwealth. Ehrenreich and Stallard (1982) claimed that while political forces continue to debate and disagree, the pool of the poor continues to increase. Impoverished Americans are trapped in a cycle of unemployment and loss of self-esteem and inadequate educational opportunities. The majority of the poor in America are women with children. The National Council for Economic Opportunity (1982) warns that if families were to increase at the same rate they did from 1967-1978, the poverty population will be composed solely of women and their children before the year 2000.

Community colleges seem to be that segment of higher education which will be called upon to train or retrain these women as well as the other poor and unemployed in order to enable them to enter and compete in the marketplace.

The politically conservative [consider that] ... major emphasis must be placed upon overall economic growth if the poor are to be helped. Along with an improved national economic program, local and state efforts should be mounted to strengthen the capabilities of individuals ... to meet their needs. [On the other hand], the politically liberal look at the statistics and call for a national full employment policy with jobs at the heart of the anti-poverty strategy. All barriers to working should be removed, and some type of federally funded job guarantee programs should be developed. National, state, and local efforts must be exerted (Parnell, 1985, p. 31).

Moreover, the study did not assess the role of the board of trustees as that source which holds the presi-

dents of community colleges responsible for exercising the leadership role effectively. Neither did the study consider the trustees' holding accountable these presidents for implementing major policy issues of the Regents and trustees in regard to academic programs and admission standards. "There is not much doubt that external constraints on college presidents have increased in recent years--more barbed wire around smaller corrales as one president put it" (Clark Kerr, 1963, p. 99). Kerr believed that strengthening presidential leadership is one of the most urgent concerns on the agenda of higher education. He challenged all higher education constituencies to restore the power of leadership to the presidents. "Colleges are [losing] opportunity to determine their own destinies ... [since] ... there is a tendency today to manage colleges rather than to lead them" (p. 100).

In addition, the study did not assess the board of trustees and presidents as they work in concert with representative faculty groups and their established governance structures in academic programs. Unfortunately, goal setting and goal development have never been driving forces in the educational enterprise. "Discussion of goals has become the intellectual sauna bath of educators. Individuals gain a rosy glow in discussing these high principles and purposes, but the impact soon wears off as the bracing cold of real life returns. The result is a lack of continuity,

coherence, and connectedness in much of the educational program" (Parnell, 1985, pp. 41-42).

Furthermore, the study did not examine the collaboration between the Regents and the local board of trustees and between the Chancellor and the presidents of community colleges in establishing mechanisms for substantive communication among groups in order to assure access to educational opportunities with excellence for all students of the Commonwealth regardless of socio-economic background and academic preparation. Richardson (1985) indicated that states need to place a very high priority on ensuring articulation among the different elements of their post secondary systems. "In many states, the competition that has developed because of a declining student pool makes competition rather than cooperation the guiding principle for relationships between community colleges and four year colleges and universities, all of which are funded out of the State treasury. Enrollment driven funding formulae contribute to the level of competition and sometimes encourage institutions to admit students they have no business attempting to serve" (p. 6).

Lastly, this study did not review the relationship between the community colleges and the high schools. Until very recently, community colleges in Massachusetts have side stepped the need to work closely with high schools and to state clearly their own preparation expectations

for high school students. Parnell (1985) proposed that if students are to succeed in a community college, they must have a clear sense of what it will take to perform well and earn a degree. "Yet, many young people hold only vague notions of what adequate preparation for a community college experience means. In the great haste to separate themselves from high schools, too many community colleges have weakened or nearly severed the high school/community college connection" (p. 28).

CHAPTER 2

REVIEW OF LITERATURE

Educational Opportunity

The higher education system of the United States affords entrance to almost all who apply. It consists of public and private sector collegiate institutions. Furthermore, "its openness, diversity, and scholarly achievement do [make it] the envy of the world. Unencumbered by suffocating ideology, the vitality and integrity of the American college and university are unmastered" (Bloom, 1987, p. 2). Such access to private and public higher education is crucial in a time when learning is considered no longer restricted to the earlier years of one's life. Learning is no longer just a matter of choice for those individuals who want to improve their quality of life. "Learning is necessary for productive and stable employment, coping with the responsibilities of citizenship, and for enjoying the full benefits of a quality life in America. With the ever changing technological environment in which we live, new developments in medicine, communication, research, and other fields, the need to learn and be knowledgeable is important to all of our welfares" (Peterson, 1984a, p. 17). Each new generation of Americans has been expected to do better than its elders in regard to learning and to achieving. More and more children and adults from poor and working class families have completed high school by traditional and non-tra-

ditional means, have entered college, and have moved on to careers unthinkable by their parents (Bloom, 1987). In this academic year, more than 12.3 million students are expected to enroll in private and public two year and four year colleges, an achievement unmatched by any other country (McCormack, 1987).

Twenty years ago, the Carnegie Commission on Higher Education (1968) asserted that American colleges and universities should maintain and strengthen academic quality if our intellectual resources are to prove equal to the challenge of contemporary society. Furthermore, it maintained that institutions of higher education should create new channels of educational opportunity. These mandates of quality and equality remain the unfulfilled agenda for higher education. According to T.H. Bell (1986), former U.S. Secretary of Education, America has too many people whose abilities are never awakened. "This staggering waste and dissipation of our most precious resource means unemployment, unenlightened citizens, reduced productivity, and personal stagnation, leading to frustration, crime, and abuse of freedom" (Muriel Cohen, 1986f, p. 21). There are as many as fifty million households, Bell claimed, that have no one who has a college degree. Furthermore, this figure is increasingly yearly.

Excellence in education mandates a learning atmosphere that offers opportunities for the mastery of basic skills

while giving students an equal opportunity to show their application of these skills in laboratories, career internships, and industrial shops (Janey, 1986). Moreover, it focuses on the individuality, personal benefits, and utility of education. Throughout the years, excellence in education understandably has been a challenge presented to students who have enrolled in institutions of higher education in order to pursue their own goals, follow their own aptitudes, and become productive, self-reliant individuals who would appreciate and understand the concept of life long learning (Boyer, 1987).

In the United States, earning a college degree has been considered beneficial and meaningful. Samuel Eliot Morrison (1935) reminded us that the first formal universities were distinctly purposeful. There was a utility to learning, and students enrolled to prepare themselves for what was considered reputable employment. The University of Salerno was a medical school and the universities that followed in its wake--Bologna, Paris, Oxford, Cambridge--offered only four courses of study: law, medicine, theology, and the arts. The first three were explicitly vocational, and law was the most popular of all the medieval studies (Levine, 1978, p. 496). C.P. Snow (1951) in a short narrative history of Cambridge University also portrayed the practical characteristic of the medieval university. Students studied a strict

and rigid curriculum that was the foundation for high standards. They went to classes held in cold and primitive university rooms where there was little light and no conveniences. Many of the students lived in dire poverty in order to be able to attend the university and purchase writing and reading materials. All these sacrifices students made for the following reasons: "If they could get their degree, jobs lay ahead. Jobs in royal administration, the courts, the church; jobs teaching in the schools. The fees were not light, and the teachers made a good living. The training was, in fact, vocational, and jobs lay at the end" (Snow, 1951, p. 394).

The awareness of the value and relevancy of a college education has not lessened today. For example, in 1982, a nationwide study was conducted by Group Attitudes Corporation on behalf of eleven higher education associations. The study was to learn how Americans viewed institutions of higher education and what their needs, interests, and concerns were regarding education beyond high school (Peterson, 1983a). Americans surveyed felt that opportunities for higher education should be extended and not restricted.

- . Better than 8 out of 10 thought the opportunity to attend college should be made available to all qualified students.
- . A large majority of Americans (72%) thought the overall quality of higher education in the United States was good or excellent.

- . Nine out of ten Americans (90.2%) thought the things a person learned in college were important for later life (Peterson, 1983a, p. 22).

However, the survey also pointed out that Americans defined the importance and role of higher education in rather narrow terms.

- . Clear majorities of Americans agreed that a college educated person is more likely to be a community leader (71.5%) and more likely to be self-supporting (68.7%) than would be an individual who never went to college.
- . A majority of Americans believed three important reasons why people choose not to go to college were:
 - (1) A college education was too expensive (69.8%).
 - (2) There were alternatives to college such as the job training and technical schools (64.3%).
 - (3) People didn't like school well enough to continue their education after high school (51.2%) (Peterson, 1983a, p. 22).

There are also Americans who believe that higher education is producing a shoddy product.

Most schools are too busy dispensing safe sex kits to devote much attention to mundane education. At 72% of our colleges, students can graduate without learning a thing about American history or literature. Fewer than half have a foreign language requirement and only a quarter mandate the study of European history. The results are appalling. An educational study commission, study Commission on Global Education, discloses 40% of college students can't find Japan on a world map ... Today's college students are nice but utterly incapable of seeing a thought through from beginning to

its conclusion. Their reasoning is so sloppy and shallow as to hardly merit the term. They mouth cliches oblivious to their likely consequences if actualized ... Higher education was conceived as a means of instructing society's elite, particularly its future leaders. Now, it ponders to the lowest common denominator. Colleges have become a combination trade school and psychic playpen (Feder, 1987a, p. 29).

American colleges and universities have not always been regarded so disparagingly. For more than three centuries, they were guided by a vision of coherence. The very first colleges trained clergy and civic leaders. They developed a sense of unity in a society whose founding fathers had their origins in many nations of Europe (Rudolph, 1962). The confidence of professors and their students in colonial higher education was "owed much to their membership in an established middle class, a commitment to European learning, and a christian conception of character and culture" (Hacker, 1986, p. 5). Like their European counterparts, colonial college students followed a monolithic and rigid curriculum. They studied Greek and Hebrew, rhetoric, logic, history, nature of plants, and theology in their first year. In their second year, students applied themselves to their studies of politics and ethnics, Aramaic, rhetoric, and theology. Their final year of college consisted of classes in arithmetic, Syriac, Greek, astronomy, theology, and

rhetoric (Cremin, 1970). Students did not question their curriculum. They endured their studies in order to achieve their ultimate goal, namely, entering after graduation one of the following professions: clergy, law, business, medicine, and civic leadership (Brubacher and Rudy, 1976). More colonial colleges after Harvard's establishment, were founded--William and Mary in 1693, Yale in 1701, and Princeton in 1747 (Cremin, 1970). These colleges were intent to educate their students "not merely in the classical sense of preparing gentlemen but for the practical demands of a changing world" (Boyer, 1987, p. 61).

After the American Revolution, the system of higher education began to reflect the democratic form of government. The once monolithic and inflexible curriculum slowly began to transform. Nineteenth century higher education's curriculum had rooted in its very tenets the concept of individualism. Also, students from less privileged families were enrolling in increasing numbers. "The Enlightenment, the growth of scientific knowledge, the call of new vocations, plus geographical expansion ... extended the undergraduate college beyond the preparation of privileged youth for elite professions" (Boyer, 1987, p. 61).

Nineteenth century college and university educators were motivated by the American faith in tomorrow and in

American desire to create a better world. They also did not obstruct the rise of a practical, hands on orientation which they acknowledged some of their students sought. For example, Rensselaer Polytechnic Institute founded in 1824 in Troy, New York, became a "constant reminder that the United States [also] needed railroad builders, bridge builders, builders of all kinds, and was prepared to create them even if the old institutions [of higher education] were not" (Rudolph, 1962, p. 229). Liberal arts, however, were not neglected. Students were able to specialize in more practical career endeavors only after having studied those courses that were the common foundation of all intellectual attainments at the Institute (Hofstadter and Smith, 1961). Even Yale University understood America's need for more practical areas of study. However, Yale did not do so at the expense of liberal education. In 1828, Yale faculty clearly stipulated that they did not endorse the concept of each student being allowed "to select those branches of study which are most to his taste, which are best adapted to his peculiar talents, and which are most nearly connected with his intended profession" (Hofstadter and Smith, 1961, p. 283). Instead, Yale faculty supported liberal education and declared that all Yale undergraduates should demonstrate mastery of liberal arts courses before specializing in professional studies. They be-

lieved that "the training of students' minds first would then prepare them for their duties in society later" (Rudolph, 1962, p. 231). In 1846, Yale established the professorships of agricultural chemistry and animal and vegetable physiology.

The transformation of the medieval, monolithic, stifling college curriculum to a more individualistic, practical curriculum was the most evident when the historic Land Grant Act of 1862 was passed by Congress. This act "wedded higher education to the practical arts" (Boyer, 1987, p. 62). Ezra Cornell, founder of Cornell University in Ithaca, New York, exemplified this transformation. At the end of the American Civil War, Cornell wanted to establish a university where any person would be able to find instruction in any field of study (Veysey, 1965). In 1869, Harvard changed its curriculum from a classical one to an open one in which students had the freedom to choose their own curriculum electives (Levine, 1978). Thomas Babington MacCaulay, a nineteenth century English historian, advocated that no academic subject was intrinsically superior to another. The importance of the subject depended on the utilitarian value assigned to it by society and the purpose which the value served (Hajnal, 1972). As the nineteenth century came to an end, business leaders had joined the ranks of education reformers in opposing classical education. These business-

men and industrialists proposed that if a mastery of any body of knowledge was the really formative element of a liberal education, then why not have students study those bodies of knowledge that are commercially valuable. Andrew Carnegie, for example, considered undergraduate curriculum meaningless and irrelevant to the world of practicality and profit. Carnegie contended the following:

While the college student has been learning a little about the barbarous and petty squabbles of a far distant past, or trying to master languages which are dead, such knowledge as seems adapted for life upon another planet ... The future captain of industry is hotly engaged in the school of experience, obtaining the very knowledge required for his future triumphs ... College education as it exists is fatal to success in that domain (Veysey, 1965, p. 13).

Business and the way it was conducted in the United states gradually impacted the curricula of colleges and universities. The expansion of capital, largely through accumulation by large corporations headed by the captains of industries Carnegie fondly referred to in his discourse on the relevancy of classical education (Veysey, 1965), had hastened the integration of workers into the wage labor system. The nineteenth century witnessed the decrease of self-employed professionals and entrepreneurs from about 40% to less than 10% of all economically active individuals, whereas the percentage of salaried managers and professionals had multiplied tremendously. As a result,

the proportion of wage earners to the labor force had continued to steadily rise (Reich, 1972). Furthermore, the integration of white collar labor into the dominant wage labor system also became prevalent (Marglin, 1974 and Gorz, 1973). Even intellectuals were gradually perceived as technicians in the United States (Baran, 1965) as the fragmentation of white collar skills continued similarly to what the blue collar workers faced when the captains of industry took away the control of the production process from the highly skilled craft workers and gave it to managers and foremen.

Even in well paid and high status jobs, the workers' discretion and participation was increasingly limited. Equally important, the creation of a reserve army of underemployed skilled white collar workers whose jobs by no means exhausted the limits of their skills or abilities had increased the pool of available labor force. By reducing job security, this reserve army acted as a critical buttress to the power of employers over their workers (Bowles, 1976, p. 204).

The advent of the twentieth century brought to the colleges and universities a curriculum far more open than ever before to serving students from diverse immigrant backgrounds and to offering preparation for the ever growing variety of possible employment generated by the impact of the Industrial Revolution and the growth of capitalism. The old view of the world as reflected in the collegiate curriculum of the past found a fundamental basis of unity

and sameness on our nation's campuses. Class, race, religion, natural origin or culture had no influence on the curriculum. Immigrants who attended college in the 1700s and 1800s had to put behind them the claims of the Old World in favor of the demands of a collegiate environment which promoted the homogenization of its student body. The openness, however, of the twentieth century college community rejected this conformity which was considered flawed and regressive. The college community was opened to all kinds of men, all kinds of life styles, and all ideologies. There was no enemy other than the man or woman who was not receptive to everything. The contemporary college curriculum was progressive and forward looking (Bloom, 1987). However, there were educators who were concerned about the absence of coherence in this new ambiance of openness. When A. Lawrence Lowell served as President of Harvard University in 1909, he endorsed the concept of distribution requirements as a compromise between the rigidity of the old classical curriculum and the randomness of electives. Yet, Lowell's compromise was less successful in practice than in theory. "There arose a sharp distinction between the utility of the major and the fripperies of the distribution requirements; after all, it was the major that was most likely to lead to a career" (Boyer, 1987, p. 64).

The twentieth century also brought with it two cur-

riculum revivals that intended to promote liberal arts education as a common curricular core. The first revival surfaced at a time when Americans were dealing with the destruction and savagery of World War I. Western idealism was devastated by the millions of lives lost. Educational leaders believed that through a revived liberal education, common problems would be defined and Americans would renew their spirit. President Alexander Meiklejohn of Amherst College, for example, initiated in 1914 a survey course on social and economic institutions in which students explored "humanistic fields and gained an 'orientation' to the larger world" (Brubacher and Rudy, 1976, p. 272). Other higher education institutions like Columbia University, Dartmouth, and Reed College also offered liberal education programs (Boyer and Levine, 1981). At this time, the University of Chicago presented to the higher education community its Chicago Plan. This plan was considered controversial because it "embodied, in varying degrees, early college admission, great books, interdisciplinary courses, comprehensive examinations, and a fully required course of study" (Boyer, 1987, p. 65).

The second liberal education revival came after World War II. It was influenced by those educators and academics traumatized by the atrocities and irrationality of the war.

Germany, the great center of scholarship, had spawned the barbarities of Nazism. Duchenwald and Auschwitz seemed to mock decades of lofty rhetoric about the enobling and civilizing power of education. and then there was the atomic bomb. Could this genie of science, once unleashed, be harassed to humane ends? (Boyer, 1987, p. 65).

In 1939, Stanford University offered a one year Western Civilization course. In the 1940s, Denison University established a core course about the problems of peace and post-war reconstruction. Wesleyen University in Connecticut scheduled a year long humanities seminar that focused on the meaning of liberal education, the nature of man and society, and man's perception of himself and his relationship to his universe. In 1945, Harvard University issued a report, General Education in a Free Society. The report, becoming the national symbol of curriculum renewal, called for a model of liberal education that would have validity and relevancy.

[The report] argued that in the curriculum, as in all aprts of college life, a balance between individuality and community must be struck ... On the one hand, a need for diversity than existed at present in the still largely bookish curriculum ... and on the other, a need for some principle of unity, since without it, the curriculum flies into pieces and even the studies of any one student are atomic or unbalanced or both (Harvard Committee, 1945, p. 32).

The 1950s and 1960s marked a period of American higher education history characterized by a national partnership of the federal government, the private sector, and

colleges and universities. Because of this partnership, scientific enterprises were built; higher education institutions were reoriented toward world affairs; and a tremendous increase of college students was accommodated without much strain on the collegiate system (Curwood, 1987o). In the 1960s, colleges and universities, wanting poor and minority students to do well, tried to make their curricula more relevant. "So rather than expose every student to a core of information, they allowed students to take anything that interested them ... curriculum became based on what interested [students and] not on what educators in general thought that all students should know. Knowledge then got dragged down to the least common denominator" ("If You Can Read ... ", 1987, p. 71). In essence, the dropping of core liberal education discipline requirements resulted in a "chaotic cafeteria that passes for a curriculum at most American" (Higgins, 1986, p. 1) colleges and universities. Curriculum of undergraduate studies became driven by the professions and the changing occupational structure of American society instead of by the acknowledgement of the significance of such skills as reading, writing, criticizing, arguing, and analyzing. Undergraduate studies were not marked by any sense of unity or core. Narrow departmentalization of disciplines in method and content and increased specialization, in other words, did not en-

able shared goals to be defined for the students (Boyer 1987). The higher education system no longer conserved its traditional liberal arts structure nor did it transmit useful high level skills to all of the undergraduate students, thereby developing their critical capacities about how society operated and what their place would be within it (Bowles, 1976).

An important effort to restructure American higher education in view of the over expansion of college enrollments was made by the Carnegie Commission on Higher Education, chaired by Clark Kerr. Between 1967 and 1973, this Commission published a series of reports that examined the state of the college systems and its programs. The Commission's work underscored its belief that higher education had to be restructured in order to meet the needs and challenges of the stable and growing American economy. It was concerned about the increasing fragmentation of educational pursuits as an "outgrowth of the conflict between the traditional elite-training function of the university and the greatly expanded number of students enrolled" (Bowles, 1976, p. 208). This expanded number of students included students who came from middle and lower income families. Consequently, it endorsed a multitiered system dominated by Ivy League colleges and universities and great state universities followed by state and private colleges and then ending with com-

munity colleges (Karabel, 1972). In general, this multi-tiered model reflected the socio-economic status of the students' families and the hierarchy of work relationships into which the students would enter after they graduated. The Commission (1973) was emphatic about the restructuring of higher education.

Elite institutions of all types--colleges and universities--should be protected and encouraged as a source of scholarship and leadership training at the highest levels. They should not be homogenized in the name of egalitarianism. Such institutions, whether public or private, should be given special support for instruction and research, and for the ablest of graduate students; they should be protected by policies on differentiation of function (Bowles, 1976, p. 208).

The Commission also advocated that community colleges should be the component of a multitiered collegiate system that would vocationalize higher education and take up the task of training middle level office and technical workers. In 1972, their student enrollments were eight times greater than they were in 1947 and three times greater than the enrollments of 1962. Since 1947, public community colleges have dominated the two year college system three times as much as the private junior colleges. In 1972, for example, 95% of all student enrollments at two year colleges were at public community colleges (U.S. Office of Education, 1974). Furthermore, the Commission (1973) advised the need on the part of

higher education to monitor and curb the rate of growth of the total system as well as to restrict the size of a reserve army of white collar workers who were graduating from colleges in ever increasing numbers since the 1950s. The Commission supported the extension of alternatives to four year college study. These alternatives would need the efforts of national, state, and local officials and educators in order to develop educational policies and programs that would create "on the job training, proprietary schools, apprenticeship programs, education in the military ... off campus extension work, and national service opportunities" (Bowles, 1976, p. 208). The recommendations of the Commission appeared to be the antithesis to America's commitment to equality of educational opportunity and to the perpetuation of the democratic process by means of a common educational experience. Not all educators believed that the Commission's recommendations were divisive and exclusive. K. Patricia Cross (1971) affirmed that no single type of higher education institution could serve the needs of the increasingly diverse groups who sought higher education in contemporary America. Cross did not believe that universities were the only institutions who could best educate and serve all college students seeking to better themselves. Cross defined quality education as one not intent to offer the same experiences to all students in a token

gesture toward equality but rather as one intent in maximizing the abilities of the student and matching these talents to the educational resources of the higher education institution. She, furthermore, asserted that institutions of higher education could differ from each other without necessarily losing their excellence.

The value of educational opportunity is just as crucial today as it was decades ago. John Weicher (American Enterprise Institute) and Susan Wachter (University of Pennsylvania) examined the Federal Reserve Board surveys made between 1977 and 1983 and concluded that the inequality of wealth among Americans increased due to the changes in the relationships between education and wealth and between age and wealth. "The elderly and the well educated have gained; the middle aged and the uneducated have lost" ("The Rich getting Richer," 1986, p. 7). President John T. Casteen III, University of Connecticut, indicated that the gap between the haves and have nots in the classroom reflects the fact that "white, middle class, suburban youngsters increasingly enjoy the benefits of college education while inner city blacks and Hispanics are dropping out of high school" (Wen, 1987, p. 20).

The greatest rise in higher education student enrollments occurred these past several decades and has been achieved by bringing new groups of students into the

collegiate system, students who represented a broad socio-economic spectrum and an increase in women (grant and Eider, 1981).

In the past dozen years, the typical college student has changed almost beyond recognition. Today she's/he's over 35, works full-time, and studies part-time. In fact, only 2 million of the nation's 12 million students live in campus residence halls. Between 1974 and 1984, the number of college students increased 18%--but only one in five was in the 'traditional' 18 to 24 age group, and the number of part-time college students increased 33%" ("Typical College Student," 1987, p. 4).

There also remains a pool of ever newer students, that is, persons who have not considered themselves as college material. "These include a certain number of people at the lower end of the socio-economic scale, largely in inner city areas; individuals whose career aspirations fall in traditional blue collar fields; and a residue of ... 'retrospective entrants', older members of groups whose assimilation into the higher education market is now substantially complete" (Duff, 1983, p. 33). Non-traditional students are concerned with convenience and cost and have been interested in occupationally and technically focused programs of study. Therefore, they appear to be the more appropriate constituencies of community colleges. Some non-traditional students attend four year public colleges and universi-

ties although these senior institutions are less conveniently located and have fewer attractive practical programs in the occupational-technical areas of study. In short, students, traditional and non-traditional, have reacted to the continual escalating private college tuition costs by enrolling in state colleges and universities, making them today "the centerpiece of the U.S. public higher education system The state colleges and universities have a pivotal, continuing role as primarily teaching [institutions] and an emerging mission as centers for basic and applied research and community service" (Muriel Cohen, 1986f, p. 21). For example, since 1980, community colleges have increased by 100% and comprise 40% of all students enrolled in college for credit. "Of the overall college student population, 10.7% is represented by black enrollment. Of this 10.7%, 50% of the black students are in attendance at the community college level" (Wolfman, 1983b, p. 26).

Ironically, however, the community colleges appear to have provided college opportunities for underprepared students from poor and lower middle class families, and at the same time, they have increased socio-economic differentials in college completion (Folger, 1970). Although community colleges, like those of Massachusetts, stress their value in terms of providing students with access to transfer and thereby to the earning of a Bachelor's de-

gree, in reality, they have less than one-third of their student body who actually do successfully transfer (Bowles, 1976). The reason for such a low transfer completion rate lies in the fact that providing access to higher education even by means of open admissions without viable support mechanisms results in high student attrition and poor student attrition is their unsatisfactory academic progress. Community colleges have addressed the extreme diversity of the preparation levels of their students by providing intensive systematized remedial and developmental instruction in skill building programs in the areas of reading comprehension, English usage and composition, and mathematics (Scibelli, 1985c; Van Winkle, 1983c; and Shively, 1983b). However, community colleges have been unable to prevent minority students from isolating themselves academically from the total student body. Community colleges acknowledge that students of color are less likely to complete course requirements because they are unable to find encouragement and emotional support. In fact, although many students of color who graduate from high school or who have earned a high school equivalency diploma enroll in community colleges, they, namely "black and Hispanic students, simply do not transfer to senior colleges and universities in the same percentages as do white students. While about 25% of community college students are minorities--and the percentage is

significantly higher at urban community colleges--minorities constitute barely 10% of the four year population" (Donovan, 1987, p. 1).

Despite the access to educational opportunity afforded by community colleges for traditional and non-traditional students, who may be prepared or underprepared, community colleges must pay more attention to enabling their students to handle college level work. Higher education educators, especially community college educators, have to publically and officially acknowledge the "undeniable fact that students who enter [higher education] are uncivilized and that [colleges and] universities have some responsibility for civilizing them ... It is becoming all too evident that liberal education--which is what the small band of prestigious institutions are supposed to provide in contrast to big state schools which are thought simply to prepare specialists to meet the practical demands of a complex society--has no content, that a certain kind of fraud is being perpetrated" (Bloom, 1987, p. 341).

Community colleges offer no distinctive vision of what educated human beings are. In their efforts to make college available to everyone, they have concentrated their efforts on providing progress that they think will sell instead of programs which will enable students to grow and learn about themselves in a collegiate environ-

ment characterized by discovery and challenge (Boyer, 1987). Community colleges do not seem to perceive themselves as the "space between the intellectual wasteland [their students have] left behind and the inevitable dreary professional training that awaits" (Bloom, 1987, p. 336) them after the associate and baccalaureate degrees. Instead of promoting liberal education as a core which would interconnect all disciplines and curricula, community colleges have increasingly developed prescribed occupational-technical curricula which will immediately lead many of their students to prospective careers as technicians, service providers, and lower level managers.

In response to this nation's desire to create educational opportunity for all citizens, the community colleges are the component of the entire higher education system which is called upon to do too much at the expense of college standards. They are asked, for example, to pay due regard to the demands of both local and national acculturation. They are expected to teach general education courses in English, math, science, and history at the same time offering courses in culinary arts, nuclear medicine, electronics, computer science, office education, and other occupational subjects. Community colleges are given the task of teaching information that is sometimes too rudimentary and often times too technically specialized (Hirsch, 1987). Furthermore,

they are to be responsive to the educational and employment needs of their local businesses and industries. In some instances, community colleges are asked to be social service agencies acting as an extension of a state's human services division.

In their quest to promote and maintain educational opportunity, community colleges have not addressed comprehensively the tension which exists between today's career oriented community college students and the liberal arts. "This tension is not new. It has existed since the college population was democratized to include far more sons and daughters of working class and lower middle class families [who] have no assured future" ("Challenge for the Colleges," 1986, p. 18). Community colleges assert that they are committed to the development of students who will not only possess technical competence but who will also appreciate liberal arts and have an understanding of the interaction of the various elements of the environment. In reality, community colleges seem to facilitate the development of students who are seeking preparation for entry level technical positions and/or job retraining (Peterson, 1984a and Wolfman, 1983b). Community colleges' tunnel vision has prevented them from enabling their students to "learn that there is a great wall beyond the little one [they know]; to experience the exhilaration of it; and to digest enough of it

to sustain [themselves] in the intellectual deserts [they are] destined to traverse" (Bloom, 1987, p. 336). Community colleges must create an environment rich with intellectual pursuits and challenges in order to assure that the educational opportunities they offer are also valid and meaningful for their students' intellectual and social growth.

Student Preparation

The United States has experienced the virtual demise of the self-employed worker as well as the integration of white collar labor into fragmented and hierarchical work roles. The expansion of corporate America has generated a rapid rise of new kinds of workers known as skilled sub-professional white collar workers such as "technicians, lower level supervisory personnel, secretaries, non-retail sales workers, dental assistants, draftsmen, and paraprofessional personnel in medicine and education" (Bowles, 1976, p. 205). These new positions, in turn, have placed demands on the school and higher education systems for the preparation and training of employees. Community colleges especially have risen to the occasion. Their associations with business and industry, specifically in the area of high technology, have resulted in a series of joint endeavors to make the American work force more responsive to the changes in the economy. In doing so, community colleges have been able to re-

spond to the "needs of welfare families, prison inmates, women seeking a career, and the rising numbers of immigrants" (Shively, 1983b, p. 1) in regard to occupational-technical career preparation. In response to marketplace demands, community colleges are offering "narrow technical training and providing credentialing for occupations devoid of rich intellectual content" (Boyer, 1987, p. 109). They seem to disregard the fact that some of these occupational-technical fields of study may not have a legitimate intellectual content of their own nor have the capacity to enlarge and not diminish the vision of the community college students.

The push toward occupational-technical education has come to dominate many community college campuses. New vocational majors have been added and old ones have been split into career options.

The shift toward business and away from liberal arts has been described as the new vocationalism in higher education and based on the preferences of today's students, it seems likely that in the short term this pattern will persist. In 1970, when entering freshmen were asked about their preferred majors, the largest percentage chose arts and humanities. In 1985, the percentage choosing this field had declined by more than half. During the same period, physical science showed a similar decline. In contrast, the percentage of freshmen who identified business as their intended major increased from 16 to 27 percent. Today, business is the most popular field of undergraduate study (Boyer, 1987, pp. 103-104).

Employers are largely responsible for the narrow technical curricula of institutions of higher education in general and of community colleges in particular.

Industry has its own problems with the labor supply. Twenty-five years ago, plant engineers in the United States listed as their primary problem the inability to hire trained qualified skilled trades workers; today, they still list this as their number one problem. The situation is further compounded by both the fact that the great amount of skilled labor that was trained during or right after World War II will soon come of retirement age, and the dichotomy of the technological boom--new, money saving equipment is available, but the skilled workers to run it often are not. In 1950, 17% of all jobs involved information processing; today 54% of all jobs require information processing and the equipment used to do that processing is more varied and complex every year (Scibelli, 1983a, p. 45).

The American marketplace is becoming increasingly dependent upon technology. Employees will need to continue learning in their fields in order to survive and prosper in this ever changing marketplace. Some will have to learn new skills, gain additional knowledge, and enter new careers once they have been displaced because their jobs have been become outdated or have been phased out (Shared Vision Task Force, 1987).

Students, also aware of the condition of the marketplace, are passing liberal arts for a more narrowly specialized career related program of study. They worry about getting jobs. Their anxiety is a byproduct of "a society

in which the call for individual gratification looms forth on every side while the claims of community are weak. No less influential are the claims of job training, even at the cost of education for citizenship" (Boyer, 1987, p. 83). Their emphasis on vocationalism with its emphasis on job skills training have placed the goals of careerism and the goals of liberal arts education at odds with each other, especially at the campuses of community colleges.

The future of the public community college looks brighter than that of most educational institutions ... For good or bad, there has been an overall shift to public education; there has also been an overall shift toward career oriented education. The number of associate degrees awarded per year increased nationally from 253,635 in 1970-1971 to 405,378 in 1979-1980, an increase of 62.5%. At the same time, there was a marked shift away from Arts and Sciences or general programs to occupation programs. For example, in 1970-1971, 57.4% of associate degrees awarded were in Liberal Arts and Sciences; by 1979-1980, this category accounted for only 37.5% (Scibelli, 1983a, p. 46).

The continued vocationalization of community college curriculum has likened the "community college to a well designed kitchen utensil and the university a beautiful Ming vase" (Clevenger, 1987, p. 2). Occupational degree programs dominate community colleges since the connection between the needs of business and industry and the curricula of community colleges is fostered by business representation on advisory boards. The private sector looks to-

ward public higher education for specific job training of future workers. Business and industry may either "set up their own training facilities, hire their own instructors, and design their own curriculum or turn to the community colleges to do this job for them" (Scibelli, 1983a, p. 47).

Community college presidents are more than willing to help out. When "corporate managers announce a need for skilled workers ... college administrators trip over each other in their haste to develop a new technical curriculum" (Arthur Cohen, 1971, p. 6). To do otherwise would run the risk that the private sector would give up on public education and eliminate access to job opportunities for community college graduates (Scibelli, 1983a). Consequently, community college students are allowed "little discretion in selecting courses or pursuing a liberal education. Systems of discipline and student management resemble those of secondary education more than those of the elite universities; some have called community colleges high schools with ash trays" (Bowles, 1976, p. 212).

Massachusetts community colleges are examples of how student preparation is greatly influenced by occupational technical careerism. Although the mission and goals of the community colleges in Massachusetts allude to the inclusion of Liberal Arts and sciences in their curriculum, the goals of the Regents and the Commonwealth influence the

extent and degree the Commonwealth does, in fact, endorse and support budgetarily the actualization of the Liberal Arts and Sciences curriculum. One would assume that, in turn, the Commonwealth is guided by what it knows to be the desires of its citizenry in regard to the quality of public higher education.

The Commonwealth of Massachusetts, for example, acknowledges business and industry as a viable constituency and responds to some of its needs by means of public higher education system's college programming. The Regents encourage community colleges by means of the budget process to react to their definition of the corporate sector as a Commonwealth constituency. The Regents set the community college budgets and determine the budget lines which each community college may have which, in turn, impact such factors as the number of employees community colleges may hire and the number and type of programs they may offer. The Regents, along with the Legislature, Executive Office, and Administration and Finance, all have a say about the future of all public higher education institutions (Van Winkle, 1987). The justification of enabling the private entrepreneurial sector to shape and direct public college curriculum is as follows:

The Commonwealth's past lights the way to the future, for our greatest traditions are democracy and innovation. We can sustain

our new economy and extend its benefits to all our people only if the higher education system serves as a gateway to opportunity ... The remarkable strength of the Massachusetts economy today is founded on the production, distribution, and application of knowledge; on electronics and biotechnology; on knowledge intensive services such as finance, health care, and education itself; and on the revitalization of mature industries through new technologies. But while we change the way we live and the way we make our livings, the reason for our success remains the same. Today, as in the past, the Commonwealth's greatest resource is the minds of its people (Jenifer, 1986a, p. 1).

While the greatest asset may be acknowledged by the Regents and the Commonwealth to be the minds of its people, the use of segments of the public higher education system to meet the employment needs of business and industry at the expense of academic autonomy and freedom is not laudable. To cloak the manpower requirements of the private sector by publically stating that the Commonwealth is enabling people to receive the training for occupational-technical careers at the college level is, in essence, changing dramatically the academic and collegiate atmosphere of public higher education, especially the curricular environment of community colleges.

Community colleges' understanding of occupational trends has a direct bearing on their career program planning. Their emphasis on technical, health services, and business career programs matches the projected growth

trends for occupation in Massachusetts (Wolfman, 1983b). "For the business and industrial community, the availability of internships and cooperative education students provides skilled manpower and an opportunity to screen potential workers" (Traicoff, 1983d, p. 13). Furthermore, by means of cooperative education, employers are able to suggest curriculum changes that will result in better prepared community college graduates. Also, the community colleges receive current information on local employment trends and career opportunities as well as on their students' preparedness (Bartley, 1985b).

Community college degree programs are ever increasingly responding to those sectors of the Massachusetts economy expected to continue to provide substantial employment and career potential for graduates in keeping with the Board of Regents mandate to develop collaborative arrangements with governmental agencies, businesses, and industries (Van Winkle, 1984b). Associate in Science and Associate in Applied Sciences and certificate programs in areas such as business, computer operations, health care, hospitality, electronics, automotive technology, drafting, etc., will remain central to community college offerings at the expense of Liberal Arts and Sciences (Shively, 1985b). In other words, community colleges offer courses of study that impact directly on the production capability of the industry such as "computer programming,

digital electronics, circuit analysis, and microelectronics technology" (Van Winkle, 1983a, p. 14). They also offer programs that support the general organizational needs of business and industry: "word processing and electronic office management, accounting, technical and report writing, business management, oral communication, mathematics and law" (p. 14).

Community colleges have been encouraged by the Governor and the Regents to become extension of state agencies that focus on the needs of unemployed workers. For example, "Bunker Hill Community College has established a Worker's Assistance Center in conjunction with the Governor's Office. This Center has been of assistance to dislocated workers from firms no longer in operation. Training and job preparation provided by the center is an extension our our business and industry commitment as we prepare experienced workers for reentry into firms in metropolitan Boston" (Shively, 1985e, p. 59).

In compliance with the Regents and Governor's endorsement, community colleges must continually assess the manpower needs of expanding and emerging high tech industries in the Commonwealth as well as design, modify, and/or expand curriculum where necessary to provide adequate training jobs in the high growth industries (Traicoff, 1983a). Community colleges, in meeting the needs of industry and business in the Commonwealth, are expected to

respond quickly to solve short term but intense demands by developing flexibility in scheduling, course offerings, and staffing (Scibelli, 1983a).

Courses are phased out and new courses are added if course assessment suggests the current offering is becoming outdated or that a more contemporary course is needed. Released resources are never left idle but are redirected. This 'exchange' principle can provide only a fraction of the resources needed of study required by this rapidly expanding industry which necessitate specialized instructors and costly equipment, the 'exchange' principle alone will be inadequate. Only though supplementary funding can needs be met. The objective of 'keeping up' fails on occasion; not because of a lack of recognition or personnel inflexibility but because of the lack of sufficient funding (Van Winkle, 1983a, p. 15).

Since the educational and employment needs of the business community will continue to be diverse and many, the development of new degree and Continuing Education programs will be a priority for community colleges (Peterson, 1984a). Community colleges have responded by offering their delivery of services on campus and off campus. Most community colleges have learning centers, learning labs, or centers for individualized instruction which enable employees of nearby industries to receive self-paced, individualized instruction of college courses at anytime during the day and evening sessions including weekends and summer sessions. "The media and mode by which students learn differ, depending on what students wish to learn

and how they learn best. Such media may include books, slides, films, audio tapes, and video tapes. Regardless, of the media, students are always active participants in the learning process solving problems, answering questions, and developing skills. In order to ensure that effective learning is taking place, progress is evaluated" (Shively, 1986c, p. 139). Some community colleges have developed a wide variety of college courses by mail and by telecourses in order to serve students who have difficulty attending classes on their campuses. Other community colleges such as Bunker Hill, for example, offer an Alternative Learning Accreditation Program. This program offers a process for evaluating and awarding academic credit for learning an individual acquired outside of the traditional college environment. "In order to receive ALAP credit, the student must provide evidence that the quality and quantity of prior learning is equivalent to college level learning. Each student receives assistance from a program advisor in order to document requests for credits. Completed portfolios are reviewed by specialists in each topic. The credits may fulfill degree requirements or be used as electives" (Shively, 1986c, p. 136). At Bunker Hill, a student may earn up to 45 credits through ALAP toward an associate degree. Furthermore, community colleges accept credit toward associate degrees earned by persons passing College Level Examination Program (CLEP)

tests and American College Testing Program Proficiency Examination Program (ACT-PEP) Tests--both nationally known testing programs. These exams cover the equivalent of the first year of college liberal arts program.

Due to a growing trend to establish satellite exchange locations for courses requiring specialized technical equipment, off campus opportunities have been also flexible and responsive to the business community (Van Winkle, 1983a). Many community colleges offer their students Cooperative Education programs which combine classroom study with practical work experience. Students may earn money and some experience during their field placement. However, their salaries are not always competitive, and therefore, they represent a minimally compensated labor force for business and industry. Community colleges also provide on site customized short term training courses for the employees of firms in their service area (Traicoff, 1986a). Moreover, people enrolled in community based training programs sponsored by business, industry, human service agencies, and other governmental departments may receive academic credit at community colleges such as Bunker Hill (Shively, 1986c) and have this credit be applied to the colleges' associate degree programs. Not only does the Commonwealth's community college system provide ample and flexible means of training employees for the immediate demands of the marketplace under the guise of being

concerned about educating life long learners, it also physically is responsive to the marketplace. The eight community colleges studied, for example, are geographically located on or near major highways heavily populated by business and industry in Massachusetts: Bunker Hill (Routes 93, 95, and 1); Holyoke (Routes 202, 5, 91, and 90); Middlesex (Routes 4-225, 495, 95, and 3); Mass Bay (Routes 9 and 95); North Shore (Routes 1A, 62, 95, and 22); Quinsigamond (Routes 290, 122, 395, and 495); Roxbury (Routes 9, 93, and 95); and Springfield Technical (Routes 291, 90, 91, 57, and 20).

The goals of the Regents in regard to public higher education in Massachusetts are impacted by the Governor and the Legislature moreso than by what academicians and educators beleive the goals should be. In short, the public higher education system in Massachusetts is directed and shaped by the political forces of the Commonwealth.

Moreover, Chancellor Franklyn Jenifer confirmed that "politics are part of the process for educational systems maintained by the taxpayers" (Phillips, 1986e, p. 2). However, the issue in Massachusetts is that the most influential taxpayer is the private sector, namely business and industry and not the citizenry at large.

Two national reports ... cite the negative impact of political influence on public campuses, including those in Massachusetts. One report by former U.S. Education Secretary, T.H. Bell, finds an overall shortage

of leadership in higher education. The second report by Frank Newman, head of the Education Commission of the States, finds a close correlation between excellence on campus and the quality of the trustees.

Observers inside and outside the Massachusetts system see a continuation of a long history of political influence on the State's public campuses. 'Massachusetts plays more political games with its public colleges and universities than any other state' said the author of a third study, University of Illinois Professor Samuel, who has researched public higher education in several states ... In the past two decades, the Massachusetts public higher education system with some of the highest salaried administrative positions in state government has become such a major source of political patronage appointments that experts question whether it is being hampered in its mandate to educate 160,000 students ... Political appointees are found in administration, personnel, budget, maintenance, and other offices. Gubernatorial appointees to the Regents, Trustee Boards, and building authorities approve expenditures, programs, appointments, and contracts that affect campus quality (Muriel Cohen, 1986d, p. 10).

Both the Regents and the local boards of trustees share the goal of realizing and enhancing the educational potential of every campus within the system and through each president oversee the day to day management of the colleges and universities. The Regents have the additional tasks of reaching a balance between local, regional, and state wide educational goals and of establishing a constructive relationship between public and independent educational institutions in Massachusetts (Duff, 1983). They

also oversee the charter and licensing review and approval for the private independent institutions of higher education. Yet, it is the Governor who appoints the Board of Regents members and the local board of trustees members. "Critics ... argue that too many prestigious positions on the unpaid policy setting boards [of trustees] for the State's [29] campuses are being handed out to political loyalists. Nearly 10% of the seats are now held by [Governor] Dukakis's campaign contributors" (Muriel Cohen, 1986d, p. 1). Moreover, the composition of the gubernatorial appointed Regents does not include any seats for public employees, especially public higher education employees. About one third of the Board of Regents are educators who are from the independent private higher education sector. They do not view themselves as interfering in the lives of Massachusetts community colleges (Van Winkle, 1987).

Public policy in Massachusetts and not educational theory and pedagogy impact the curriculum of the community colleges in regard to what programs have to be "reduced, eliminated, expanded, and developed as needed and as funding has permitted" (Shively, 1983b, p. 6). The Legislature reacts to the need of its constituencies either by direct voter communication with its members of the Senate and the House or by referendum activities that enable the electorate to establish legislation to which they believe the

Legislature is not responding. Lobbyists acting on behalf of a constituency--business and industry--demonstrated "how critical the State's economic interests view activities in the State House. The amount of money being paid lobbyists from industry and all sorts of economic interest groups really shows how high the stakes are in legislative decision making ... They [special interest groups] are hiring lobbyists in some cases to get bills passed, but also to stop some legislation or add some critical amendment" (Phillips, 1988, p. 18). For example, last year alone, the Senate President received \$46,500.00 from political action committee pressing interest legislation at the State House (Mohl, 1988).

Legislative decision making impacts community colleges and their mission and goals primarily through the budgetary process: maintenance, capital outlay, and collective bargaining agreements. For example, "assuming the Governor remains firm in his decision to level fund programs through FY'88 and that the Legislature takes no action to the contrary, Bunker Hill Community College will receive no new program money until FY'89. Thus, unfunded or underfunded items considered continuing priorities may be found in original budget requests to the Regents for both FY'87 and FY'88. although these past budget presentations require updating, they are considered elements of the current planning and budgeting effort" (Shively,

1987b, p. 10). Moreover, public institutions of higher education have experienced most of the pressure for formal accountability in regard to teaching efficiency and educability of students (Fiske, 1987). The Legislature seems to measure the legitimacy of the community colleges' budgetary requests by the FTE enrollment figures of each respective college. In other words, the greater number of community college students enrolled, processed, and graduated each fiscal year reflects the productivity ratio of each school. The more productive the school appears, the more receptive are the two chambers of the State Legislature. However, Dr. Ernest Boyer, President of the Carnegie Foundation, warns against such simplistic responses to complicate problems of this nation's higher education system, both private and public. Boyer questions the shaping of higher education by politicians who react to the certainty of superficial numbers rather than by those who know more about what occurs in a community or junior college, college, or university (Fiske, 1987).

Furthermore, the Massachusetts Legislature enacts legislation that empowers the Regents and sets the parameters of the Regents' authority as this authority relates to each segment of public higher education--community colleges, state colleges, and universities--while the Governor has appointment power in regard to who serves on the Board of Regents and the local boards of

trustees of each public higher education institution. Yet, former Board of Regents member, Sister Janet Eisner, President of Emmanuel College, confirmed that local boards of trustees were resisting the development of a strong central Board of Regents who, because of legislative and executive support, was increasing its authority (Muriel Choen, 1986d). This seemingly checks and balances system (Thomas Jéfferson, Notes on the State of Virginia, Query XII) does not enable any one legislative body or appointed group to transcend its legal limits without being effectively checked and restrained by the other in regard to public higher education.

However, there is no component of this checks and balances system that affords the public higher education presidents the degree of autonomy and curricular license shared by their independent private higher education counterparts. For example, the University of Massachusetts/Boston Chancellor, Robert Corrigan, is representative of the issue of public higher education presidents' autonomy. In addition to having to be responsive to students, faculty, community groups, board of trustees, and the Regents, public higher education presidents need to respond to their respective legislative delegations to the State House. In Corrigan's case, "a number of Boston members of the Legislature felt Corrigan was not responsive on the question of jobs and other concerns ... 'I'm not

talking about academic appointments' said one legislator who wished to remain unnamed. 'But what's the harm at looking at candidates I suggest for secretary, clerk, or janitor'" (Curwood, 1987r, p. 24).

Chancellor Joseph Duffey, Univeristy of Massachu-
setts/Amherst, described higher education as a fragile
community whose members hold diverse views. Chancellor Duf-
fey stressed that to make public higher education work in
Massachusetts, "it must remain non-political" (Caldwell,
1987, p. 2). Some community college presidents claim
that colleges and universities are and should remain au-
tonomous from the Regents. The Regents' staff's role
should foster the concept of institutional autonomy from
the Regents. Moreover, the Regents should lessen their
policemen role and make themselves more of an advocate for
community colleges. As it stands now, the Regents have the
right to demand accountability from all segments and are
capable of using the budgets, trustees, new program re-
quests, etc. to erode and/or restrain the institutional
autonomy of any public community college, college, or uni-
versity (Bartley, 1987). This growing centralizing of the
Board of Regents is occurring at a time when all segments
of public higher education are understanding each other
more and are increasing their effects for collaboration
and cooperation. "By means of trial and error, punch and
counter punch, victory and loss, the system is growing

and maturing" (Bartley, 1987).

Massachusetts is not alone in expressing concern about the trend of legislative scrutiny of higher education. Such political intrusion challenges the fundamental principles of the autonomy of the professor in the classroom and the authority of colleges and universities to define their missions and standards. " 'Until recently, the definition of a college education was obvious,' said Joan E. Bailey, Assistant Vice President for Academic Affairs at the College of New Rochelle. 'A college education was doing what the faculty said was necessary at a level of competence determined and measured by the faculty' " (Fiske, 1987, p. 27). College education as thusly defined is not what occurs in the Massachusetts community college system. Community college faculty who support the need for a strong liberal arts foundation for every student regardless of their program of study are continuously challenged by the demands of adequate career preparation endorsed by the Governor and Regents in the context of a two year program (Houlihan, 1986b). The reality of the submission of the college presidents to such political constraints in regard to curriculum and fiscal autonomy is antithetical to the Regents' Chancellor Jenifer's vision of the State of Massachusetts public higher education system.

A commitment to excellence in public higher

education is not a threat to the excellence of independent colleges and universities. This Board and I recognize that outstanding independent institutions are a vital asset for Massachusetts and that they provide an important dimension of choice for students. But we will not accept that their excellence is somehow an excuse for mediocrity in the public system (Jenifer, 1986, p. 2).

Curricular Bridge

"The national and international marketplaces are facing American business, industry, and education to change their methods of doing business. Colleges that refuse to build and cross the bridges demanded by new technology and local employment needs will be left stranded on the roadside, watching traffic go whizzing past" (Peterson, 1983a, p. 23). Data concerning employment by occupation in New England show clerical, managerial, and administrative occupations leading the expansion of the economy. Aiding in the economy's expansion along side the high technology and manufacturing industries are the service fields of medicine, education, and management consulting. According to a report entitled Massachusetts Employment: Projected Changes 1980 to 1990 and published by the Division of Employment and Security, Massachusetts is expected to record an "increase of 317,000 wage and salary jobs during the 1980-1990 projection period, representing a growth rate of 12%. Substantial gains during the 1980s will be evident in durable goods manufacturing, construction, wholesale and retail trade, finance, insurance, real estate, and the [service

fields]" (Peterson, 1983a, p. 19).

Recognizing that the health and well being of a technology based economy is dependent on a skilled and educated workforce, national, state, and local governments have advocated the improvement of our educational systems--kindergarten through twelfth grade and higher education (Traicoff, 1983c). Massachusetts is cognizant of this fact and has linked its academic community with the professions, business, industry, and human service agencies by identifying these groups' needs and developing appropriate programs to respond to them. The Governor and Legislature endorsed the premise that public higher education did not exist in isolation from the environment of the State's economy. It acknowledged that public higher education can not help but be influenced by the economic and social trends confronting Massachusetts and the country. Moreover, the Legislature advocated that public higher education should respond to the economy and its demands. The lawmakers rationalize their position on the following information:

Futurists, such as Alvin Toffler (1980) in their studies, are telling us that the careers of the present are rapidly changing due to the electronic revolution going on in our society and that education can not turn back the clock, even though traditionally, it desires to do so. The Bureau of Labor statistics of the U.S. Department of Labor is stating that the 1980s promise major changes in our nation's economy and work force requirements that will greatly

affect the job outlook for college graduates (Peterson, 1983a. p. 98).

The State Legislature and the Governor do not want the rewards of a strong and healthy economy in Massachusetts be diminished by "a plethora of unskilled jobs that require skilled technical training, existing simultaneously with large pools of inadequately prepared young adults who are unskilled and unemployed [and who are] concentrated mostly in urban areas and among minorities" (Scibelli, 1983a, p. 46). The Legislature is aware of the major causes of unemployment as identified by the U.S. Department of Labor:

- . frictional which results from the lack of information about job opportunities
- . structural which results from the mismatch between skills possessed by the job seeker and the skill required for the available position
- . cyclical which results from the periodic decline in business activity (Peterson, 1985b, p. 47).

Moreover, the Legislature understands that technological advancements resulting in obsolescence of skills will cause increasing numbers of adult learners to seek occupational retraining. It knows that the projected rapid growth and change in high technology and other industries will continue "to create a serious manpower gap between jobs generated and the availability of skills technical and professional workers" (Traicoff, 1983c, p. 16). Furthermore, the State Legislature, Governor, and Board of Regents realize that since employment opportunities will linked more and more to career and continuing education, the numbers of

of people wanting to enroll in community colleges will increase. These people will be seeking "more immediate employment after two years or less [and] may elect associate degree or certificate programs related directly to the technical level employments needs of regional commerce, industry, and social agencies" (Peterson, 1983a, p. 8).

In short, community colleges mandated by the Legislature, Governor, and Regents will continue to build bridges with business and industry in Massachusetts. Cooperation with the private sector gives community colleges access to information needed to update their curricula. In turn, community colleges provide training assistance, thereby contributing to the establishment of a qualified labor pool in Massachusetts for business and industry. However, such collaboration at the expense of comprehensively educating their students for life long learning is questionable.

Bringing student hopes into line with the realities of the job market is facilitated by a tracking system within the community college much like the channeling system for high schools: four year college transfer programs for the promising and vocational programs for the dead enders. The magnitude of the task of lowering student expectations can hardly be exaggerated: At least three times as many entering community college students want to complete four or more years of college as actually succeed in doing so. Less than half of community college entrants receive even the two year Associate of Arts degree. Thus, we can hardly share the surprise voiced by the authors of the influential Folger (1970) report. The segregation of students not des-

tined for the top has allowed the development of procedures and curricula more appropriate to their future needs as defined by their actual occupational opportunities. The vast majority of students in community colleges are programmed for failure. Great efforts are made--through testing and counseling--to convince students that their lack of success is objectively attributable to their own inadequacies. Burton Clark (1960), a sociologist, acutely describes the process: In the junior college, the student does not so clearly fail, unless he himself wished to define it that way, but rather transfers to terminal work. The terminal student can be made to appear not so radically different from the transfer student, e.g., an engineering aide instead of an engineer and hence he goes to something with a status quo of his own. This reflects less favorably on the person's capacities ... The provision of reality available alternative achievements in itself is an important device for alleviating the stress consequent on failure ... The general result of cooling out processes is that society can continue to encourage maximum effort without major disturbance from unfulfilled promises and expectations (Bowles, 1976, p. 211).

The community colleges, acting as a bridge to business and industry by means of its occupational-technical curricula, are perpetrating an unfortunate hoax. The promise of high status seemingly offered by admission to community colleges does not take into account that employment opportunities and salary incomes for workers with less than four years of college are far less than for those students who graduate with baccalaureate degrees. This reality is especially cruel to minority, low income, and less academically prepared students who were attracted to community colleges since the 1970s when expanded ac-

cess programs were able to recruit more ethnically and economically mixed student bodies (Donovan, 1987). Unfortunately, career oriented students can receive undeserved criticism, although the targets of assessment should be the community colleges which fail to give their students a "sense of passage toward a more coherent view of knowledge and a more integrated life" (Boyer, 1987, p. 68).

In other words, community colleges must begin to lessen and not increase the gap between their students' academic achievements and the educational levels of more advantaged college bound students. Unless community colleges reconsider their roles as a bridge to the private sector built on their narrowly specialized occupational-technical programs, they "will increasingly be perceived as neither colleges nor performing a real educational service to their respective communities. Already, some critics have charged that the academic differences between community colleges and trade/technical schools have all but disappeared. And, some note that trade and strictly vocational schools have an even better record of placing students in jobs after graduation" (Donovan, 1987, p. 74).

Community colleges are sensitive about their images as egalitarian institutions of higher education that provide educational access to all students regardless of their previous levels of educational achievement. Yet,

they need not lose this image in asserting their rightful academic place in the entire public higher education system. Community colleges need to be able to demonstrate effectiveness by commonly agreed upon academic standards and by increased effort on behalf of their transfer oriented students so that their students can be adequately prepared for the academic environment of senior baccalaureate institutions (Donovan, 1987). Community colleges need to re-examine their vocationalization of college curriculum.

"The danger is that in a bid for survival, [they] will [continue to] offer narrow skills training with a cafeteria of courses devoid of deeper meaning. If the college experience is to be worthwhile, there must be intellectual and social values that [the students] hold in common even as there must be room for private preferences" (Boyer, 1987, p. 66).

Community colleges do not serve their students well by not addressing the growing gap between liberal arts and occupational-technical arts and by not relating the values of liberal learning to vocational preparation. They should concentrate as much attention to the teaching of literature and languages, history, philosophy, religion and the history and appreciation of the fine arts as they do to the teaching of basic skills. To allow rote learning and multiple choice tests to dominate the educational environment at the neglect of "harder to measure

skills involving interpretation and reasoning" (Lichtenstein, 1987, p. 39) is to suggest that for community colleges, packaged learning experiences have more value than inquiry and problem solving as the core of community college students' educational experience. Furthermore, "if a major is so narrow and so technical that it can not be discussed in terms of its historical and social implications, if the work in the proposed field of study can not be a broadening experience, then the department is offering more technical training that belongs in a trade school, not on a college campus, where the goal is liberal learning" (Boyer, 1987, p. 110).

A discussion of the opportunities for community college students for the expressed liberal arts curriculum has to center on those influences--outside and internal--which impact the curricular offerings of a community college. Student interests and needs coupled with faculty interests are not the sole stimuli for a community college in regard to course and program offerings. New programs are added only after current needs assessments have determined the community's need for and ability to place [community college] graduates. Advisory committees have given valuable input and established strong community ties. The theme, then, is one of cautious growth in academic programming (Peterson, 1983b). The state of the economy of Massachusetts and the labor force requirements of local

businesses and industries also influence the curricula of community colleges.

Nevertheless, community colleges have the organizational structure which enables them to generate course descriptions and course offerings be they accredited courses or special topic courses. Should a community college wish to initiate a new degree program it has to receive the Regents' approval and follow Regents' guidelines. Community colleges have been chosen to bypass the new program petition process by adding curricular options to existing programs. For example, Bunker Hill, instead of petitioning for new program approval, simply has taken its Liberal Arts and Sciences degree program and added options such as Liberal Arts--Business Administration option; Liberal Arts--Engineering option; and Liberal Arts--Theater Arts option (Shively, 1986c). Students focus on the area concentration of their respective option by using the electives of the liberal arts program as a means of taking specific courses in the option content area. They then graduate with an Associate in Arts degree in Theater Arts. The reason why community colleges look toward the option choice is because the Board of Regents program proposal and review process is considered by community colleges to be a true impediment since the review and coordination take too long. Some community colleges have even developed certificate programs of 30

credits hours or less in order to create opportunities for new programs (Van Winkle, 1986a). Community colleges assert that if they are to respond in a timely manner to the needs of the expanding technology of the business and industries in Massachusetts as encouraged by the Governor and the Regents themselves, then the Regents must establish a more expeditious program approval procedure (Traicoff, 1983a). Community colleges maintain that they will offer no new programs unless proper financial and staff support are made available. Furthermore, they will not compromise the quality of their existing programs by diverting funds to the point where adequate support is no longer available. "It is believed, however, that the plan of building options upon existing core programs and the plan of designing curricula that utilize existing faculty and course resources is economical and practical" (Houlihan, 1984a, p. 4).

New program development requires a planning process which can determine the priorities among various proposals. The following statement guides the establishment of new program priorities:

- . The take off point for new programs is the mission statement and the institutional goals. New programs should be seen as conforming to the mission statement and the institution's goals.
- . There must be a clearly demonstrated need for the proposed programs by the various communities and constituencies which the college serves. Program planners must be able to document that need. A data base must be established through appropriate research.
- . Labor market demand for new technical

- and occupational programs must be established. This will involve developing a data base as well as building a foundation for cooperation and collaboration with business and industry.
- . Accessibility to occupations and further post secondary education by community colleges' primary constituencies may impact the determination of program priorities.
 - . An inventory should be conducted of the colleges' available resources--physical, financial, and human--which are needed to support proposed programs.
 - . Research on the availability and likelihood of additional resources will also determine program priorities.

These criteria along with the questions on the Board of Regents' Stage I intent to plan form provide the guidelines for initial planning. After approval of the Stage I proposal by the board of trustees and the Regents, more detailed plans will be made according to the Regents' Stage II proposal format. After the Regents approve the Stage II proposal, plans will be made to implement the program (Wolfman, 1983b, pp. 41-43).

The community college curricula do not autonomously come into being. The Board of Regents impacts this segment's curricula through institutional and state wide program review and new program and degree granting approval. However, the Regents have no direct method of assessing students' access to expressed curriculum of any program (Taylor, 1987). What the Regents do monitor are admission standards and enrollments. The Regents rely on state wide and institutional review procedures in order to evaluate the curriculum of community colleges. The state wide review of programs consists of a single program of all fifteen community colleges being reviewed. The Regents pick a team of evaluators selected from na-

tionally recognized professionals within the discipline of the program to be reviewed (Taylor, 1987). On the other hand, an institutional review consists of a series of programs at a single institution in a given area to be evaluated such as Nursing, Business Administration, or Graphic Arts. The community colleges are responsible for getting their own evaluators. The Regents sign off on the evaluator and monitor any conflict of interest. Then, the community colleges submit the evaluator's report as well as their institutional program of review to the Regents' Office of Academic Affairs (Taylor, 1987). In as much as new programs are concerned, the procedure consists of two stages. First, a community college may present the new program proposal as part of its long range plan and as a proposal to the Regents. The college must establish and demonstrate a need for the new program and its ability to offer the program. Should a program before being submitted to the full Board of Regents be challenged or voted against by any sister institution from any of the the three segments--community college, college, and university, the Regents require the school issuing the rejection to present legitimate issues for concern that support the rationale for rejection of this new program (Taylor, 1987).

Whereas community colleges are afforded the opportunity to initiate accredited courses which in their estimation will enhance and/or strengthen existing programs of study and

whereas they have input in the development of a new program proposal, they do not have the power to sustain nor expand a program such as liberal arts if the external influences as discussed wish the community colleges to focus their personnel, resources, facilities, and monies on career and occupational-technical programs of study. Moreover, despite the Commonwealth's rhetoric that liberal arts are crucial to the education and preparation for life long learning of all community college students, community college Liberal Arts and Sciences faculty are increasingly being called upon to adapt their respective disciplines in order to meet the curricular needs of occupational-technical programs of study. Their respective college makes a distinction between a service course offered by one department for a specific major and a non-service course which may be any course (Margolis, 1986).

Community colleges tend to prepare master schedules each year that are not necessarily rich with liberal arts courses as diverse and numerous as those offered by a baccalaureate institution or by an independent junior college. ESL, developmental and occupational-technical course offerings force a reduction of the number of course sections for liberal arts courses a community college may provide its students each academic year. "Although there has been much documentation that basic skills courses are successful in raising test scores and demonstrated competencies as mea-

sured immediately following such course work, the research regarding the extent to which these skills transfer to higher level courses within the curriculum is much less clear" (Houlihan, 1986a, p. 13).

The use of preparatory, basic skills, ESL, and developmental courses, for credit or non-credit depending on the community college, is varied and not adequately examined by the Regents. For example, Bunker Hill Community College requires non-native speakers of English to take a maximum of 39-42 credits of ESL instruction. Only 8 credits of advanced ESL may be applied to an associate degree (Radell, 1988). The faculty as a whole are not aware of this policy since in the past ESL students graduated in liberal arts using ESL courses as elective credits. Consequently, they and some ESL students do not know that ESL students theoretically must take 39-42 credits in ESL and then as additional 52-60 credits in a specified area--liberal arts or career. As a result, this student population may need a minimum of 3 to 3½ years in order to earn an associate degree. The Regents are definitely negligent in their monitoring and assessing of ESL programs throughout the community college system. Community colleges in Massachusetts do not have exit exams or competency tests which their students must pass before enrolling in college level courses after they have completed ESL courses. In fact, some ESL students need to enroll in developmental English courses before they begin the low-

er level courses of college English. Furthermore, the majority of these students lack the confidence and/or aural/oral proficiency to communicate well with their English speaking classmates (Radell, 1988).

The Regents have not demonstrated a commitment to ensuring that all students are, in fact, graduating from community colleges equally prepared as collegiate students. The Regents recognize that a significant number of the students who enroll as community college students will have more academic needs that may prolong graduation beyond the standard two years. "One year certificate programs are expected to be most suitable for meeting the needs of unemployed professionals who seek retraining. The programming for this group will demand more of the [community colleges'] attention and will clearly demonstrate the short range benefits which the Commonwealth can derive from the colleges" (Haskins, 1980, p. 7).

The monitoring systems which the Regents do have actually approve and review programs but not student competencies, and the auditing systems examine student demographics and not student proficiency levels. The Legislature for its part is concerned with enrollment figures and community college productivity. The Governor is concerned with building bridges with the business and industrial community. Who then is responsible for the preparatory education of the students? To answer by saying that community colleges

must do it all is placing a tremendous burden on this system. In reality, some of the community colleges resemble less their sister four year colleges and universities and resemble more social service agencies and occupational-technical regional high schools and technical institutes. The Regents and the State Legislature are responsible for dimming President Truman's vision of creating access for the public to affordable two year college education. They have taken a just and equitable concept and transformed it into a means of perpetuating a working class labor force to meet the needs of businesses and industries located in Massachusetts. Under the guise of education for all, the commitment to preparing and educating community college students for life long learning has been diluted by the colleges' promotion of certificate programs, General Studies, Liberal studies, Associate in Science degree, and Associate in Applied Sciences degree at the expense of Liberal Arts and Sciences. Consequently, opportunities for a comprehensive Liberal Arts and Sciences program competitive with the first two years of a baccalaureate education offered by four year colleges and universities are not uniformly and consistently afforded to all community college students. Furthermore, the community college students who wish to transfer from different community colleges may enter the same senior institution inequitably prepared despite the fact that they have met the 1984 Transfer Compact requirements. Somehow, a school of

thought which minimizes the relevancy of Liberal Arts and Sciences has emerged among the decision makers in the community college system of Massachusetts to such an extent that the major thrust of this segment is focused on certificate programs and Associate in Science and Associate in Applied Sciences degree programs.

While the humanities contribute much to the education of a whole person, some of the values which the humanities offer an educated person are not seen as directly related to the goals of occupational programs. The humanities do develop an appreciation for the human condition and through it encourage self-development through self-discovery. These rather nebulous concepts are not seen by occupational educators as directly related to the objective their various programs have of preparing individuals for employment, for careers, and for further education (Shared Vision Task Force, 1987, p. 5).

As a consequence of the gap between liberal arts education and occupational-technical education and liberal arts education and developmental/remedial education, four year colleges and universities "have largely been content to ignore what they see as their junior partners. They often suspect community college grades and question the wisdom of accepting two year credits, particularly as these credits apply to a baccalaureate major" (Donovan, 1987, p. 7). Community college students who wish to transfer are then faced with obstacles, even though they may have fulfilled all their community college's requirements for an associate degree. "Too frequently, students discover that the guidance they received at the community college was not always in-

formed. This is not surprising since neither faculty nor counselors at a two year college typically know precisely what courses count toward matriculation at even the major receiver institutions" (Donovan, 1987, p. 7). Although transfer articulation agreements might exist between community colleges and senior institutions they are not always known in detail by the community college faculty nor are they always helpful. Furthermore, if an articulation agreement exists, it often has not been developed by the faculty.

A four year institution, in theory, might accept a particular course for credit; a department, in practice, might not. In addition, four year college catalogs do not always keep up with a shifting departmental curriculum and changes in prerequisites. What is most disheartening is that students pay for this lack of collaboration by either being forced to repeat courses or by not being adequately prepared for upper level courses (Donovan, 1987, pp. 7-8).

Neither saw collaboration as a strong enough priority to justify the time and expense of implementing a major bridge program. As a result, students were left to negotiate a very frustrating and difficult system. The realities of transfer in the 1980s certainly have emphasized the need to alter institutional priorities (Donovan, 1987). For example, all segments of public higher education in Massachusetts signed the Commonwealth Transfer Compact in 1974. The Compact was considered a landmark since it guaranteed the transfer of all credits earned in an associate degree program from a Massachusetts community college providing that

the associate degree contains the equivalent of 60 credit hours (20 courses) of undergraduate college level study including 6 hours of English/communication; 9 hours of behavioral/social sciences; 9 hours of humanities and fine arts; 9 hours of mathematics/sciences; and the remaining credits on a college level (Schinness, 1984). Responding to the concerns that the Transfer Compact could become even a more "responsive vehicle in aiding the movement of students among institutions" (Schinness, 1984, p. ii), the Board of Regents appointed in November 1982, an Articulation Task Force of college presidents. On November 29, 1983, the Task Force's recommendations were submitted to the public higher education's presidents and chancellors for consideration. The revised compact included and made a distinction between the associate in Arts and the Associate in Science degrees; limited the number of credits transferable to 66 semester hours; established a minimum grade point average of 2.0 for transfer from a community college; recognized the allocation of space for transfer students in compliance with the Regents admissions policy; established a Transfer Coordinating committee to review and recommend articulation policies; and mandated the appointment of a transfer officer on each campus as the key staff person for all transfer issues (Schinness, 1984). The Transfer Coordinating Committee consisted of eleven members appointed by the Board of Regents. Their objectives were to review and interpret current articulation

policies; recommend additional policies as needed; and submit a report annually to the Council of Presidents and Chancellors and to the Vice Chancellor of Academic Affairs of the Regents. Eleven members were selected, two from the community colleges; one from the state colleges; one from the state universities, one one from the Board of Regents. It was recommended that these members be chief executive officers or chief academic affairs officers. In addition, a transfer counselor and admissions officer from each segment of public higher education would serve--community college, college, and university.

Another important result of the 1984 Transfer Compact revision was the requirement of 33 credit hours of general education courses for the Associate in Arts degree and the requirement of 21 credit hours of general education courses for the Associate in Science degree. Furthermore, the Task Force acknowledged that besides a transfer Liberal Arts and Sciences program of an Associate in Arts degree, it would also recognize as transfer programs an Associate in Arts transfer degree in Business Administration and an Associate in Science transfer degree in Engineering (Schinness, 1984). Since the Associate in Science transfer degree placed more emphasis on the scientific, technical, and mathematical competencies, the Task Force specified that the Associate in Science degree should reflect a greater degree of concentration in these disciplines. It also encouraged each community

college to develop a "general education concentration within the transfer parameters, respective of the particular degree discipline offered" (Shinness, 1984, p. vii).

Furthermore, the 1984 Transfer Compact revision indicated that public colleges and universities were not required to accept more than 66 credit hours. Public baccalaureate institutions had the right to require a full two years of upper division work for the baccalaureate degree and the right to require major course requirement. Should community colleges award other associate degrees besides Associate in Arts and Associate in Science degrees as well as certificates for programs with a primary objective other than transfer, the "acceptance of course credits for transfers from such programs will be evaluated by the senior level institution on the basis of applicability of the courses to the baccalaureate program in partial fulfillment of the general education requirements, in graduation credits, and in the major field of students' election" (Schinness, 1984, p. vii). Moreover, a community college and a four year public college could negotiate a transfer articulation agreement apart from the Massachusetts Transfer Compact provided that a report of such an articulation agreement in terms of purpose, design, participants, duration, and results would be submitted to the Regents' transfer Coordinating Committee.

Currently, a debate exists between the Board of Re-

gents and community colleges concerning the February 1, 1987, revised and recommended Commonwealth Transfer Compact (Littell, 1987) approved by the Transfer Coordinating Committee (Assar, 1988). This latest revision does not refer to any associate degree in particular. Instead, it describes what the general education core would be for all associate degrees: Associate in Arts, Associate in Science, and Associate in Applied Sciences. The minimum core would be as follows: English composition/writing (6 credits); behavioral and social sciences (9 credits); humanities and fine arts (9 credits); natural or physical science (8 credits); and mathematics (3 credits) (Rees, 1988, p. i).

This core differs from the 1984 Compact in that the category of mathematics and natural science (9 credits) of 1984 has been changed to two categories: natural or physical science (8 credits) and math (3 credits). Furthermore, "these 35 credits will be applied toward the fulfillment of the general education requirements at the receiving institution, provided that these courses meet the level and category requirements to be established by the Board of Regents" (Rees, 1988, p. ii). The 1987 Transfer Compact revision now states that the remaining credits of any associate degree will be accepted by the receiving senior public institution and may or may not satisfy the requirements of the degree program into which the student of any community college transfers. Moreover, the 1987 Compact stipulates that sub-

sequent graduation from four year college or university is not assumed within a two year period of full time study. The 1987 Compact revision strikingly differs from the 1984 Compact revision in that it emphatically states that remedial and developmental courses will not be counted for academic credit in transfer although some community colleges are giving their students full credit to these and ESL courses, thereby enabling their students to apply these credits toward the requirements for any associate degree. In addition, "any student who passes a course at a community college which is considered an upper level course at the four year institution and demonstrates he/she has the prerequisites and/or co-requisites required of the native student [student who began at the senior institution as a freshman] shall be granted upper level credits for such a course. Without these prerequisites or co-requisites, the course must be validated" (Rees, 1988, p. ii).

Another difference between the 1984 and 1987 Compacts concerns the composition of the transfer Coordinating Committee. The composition remains the same--eleven members. However, now the 1987 Compact stipulates that five members will be chief academic affairs officers: two from community colleges, one from state colleges, one from state universities, and one from the Board of Regents. Also, instead of each segment being represented by one transfer counselor and one admissions officer, the 1987 Compact stipulates

"six members will be transfer and/or admissions officers, two from each segment" (Rees, 1988, p. iii). Lastly, the 1987 Compact has included a student appeal procedure in the event a community college student believes he or she has not been accorded consideration in accordance with the 1984 Commonwealth Transfer Compact. This procedure affords the student an opportunity to have the situation explained or reconciled. Furthermore, it should be pointed out that for both the 1984 Transfer compact and 1987 Compact, if a student has not completed an associate degree and wishes to transfer credits she/he has already earned, these credits earned (not completing a minimum of 60) do not come under the protection of the Massachusetts Transfer Compact Agreement.

As stated previously, a debated exists between the Regents and the community colleges concerning the implementation of the 1987 Transfer Compact. As of this moment, the 1987 Transfer Compact has been approved by the Transfer Coordinating Committee and submitted to the Vice Chancellor of Academic Affairs, Dr. Norma Rees. Dr. Rees has to submit this version to the full Board of Regents for implementation approval and authority. However, due to the vehement reaction of the community colleges as a group against the 1987 Compact, she has not done so and has agreed to postpone the submission pending receipt of a minority report from the community colleges (Assar, 1988). The community colleges

consider the 1987 Compact to be unduly demanding in regard to the general education requirements. They believe that the Regents are requiring more from them than from many public colleges and universities. Furthermore, community colleges consider that this 1987 Compact revision does not emphatically guarantee that all the credits (no more than 66) will be accepted as specified in the original 1974 Compact and that all community college students who wish to transfer will be afforded a slot at the senior public institutions provided they meet the curricular specifications of the 1987 Compact. Some community colleges consider the stated emphasis of the 1987 Compact to not count remedial and developmental courses for academic credit in transfer as an action which casts aspersions on the integrity of the associate degree programs (Assar, 1988).

A sensitive issue that continues to be a source of concern persists to be the lack of a workable mechanism to facilitate easy transfer from community colleges to state colleges and universities. Although Massachusetts does have the 1984 Transfer Compact, some community colleges' staff "often must negotiate with various departments at state colleges and universities to facilitate the appropriate transfer of the maximum number of allowable credits" (Houlihan, 1986b, p. 24). In other words, senior public institutions do not always respect the intent and specific provisions of the 1984 Transfer Compact. Whether the reasons

revolve around issues of full-time student enrollment demands; elitism on the part of the receiving institutions in regard to the quality of curriculum and of student academic preparation and competency; or perceived turf issues on the part of the senior institutions regarding duplication of programs and courses, the fact remains that community college students who wish to transfer are placed under undue hardships when they "find themselves with 'empty' credits which they believed would transfer into their baccalaureate major ... Concern has also been expressed about the gifted student. Some [community college] faculty would like [their] colleges to provide a heightened, more intense intellectual experience for students with exceptional abilities" (Houlihan, 1986b, p. 73).

A constant pressure placed on all segments of public higher education by the State Legislature is one based on its equating budget allocations with FTE student numbers (Van Winkle, 1983a). The more FTEs an institution establishes it has for each academic year and projects for the next academic year, the more likely it will receive legislative consideration and response to its budgetary requests. "The general budget cutting mood of the State Legislature ... has affected the whole public higher education system" (Curwood, 1987p, p. 30) to the extent that all segments are forced to compete with each other to assure and enlarge their FTE enrollments.

Another issue concerns the transfer articulation agreements that community colleges individually negotiate with receiving public and private institutions. Community colleges assert that they be permitted the flexibility to develop their own curricula to meet the specific needs of their students and then be allowed to negotiate the interfacing of their curricula with those of particular program majors of the baccalaureate institutions (Peterson, 1984b). The inequality of this practice occurs when one community college A, for example, has established for whatever reason, a good sound working rapport with a public or private college X in terms of transferring its students who are associate degree recipients majoring in concentration Z. The issue is that this same senior institution X need not necessarily accept in concentration Z transfer students from the remaining fourteen community colleges. This situation is especially true for the negotiations made between public community colleges and private four year institutions. Community colleges justify their individual transfer articulation agreements by stating that they want to ensure that their transfer oriented curricula are appropriately designed; they want to expand opportunities for their transfer students; and they want to avoid the duplication of services particularly among their sister public institutions located in their region (Bartley, 1985b). Such individual transfer articulation agreements known as 2 + 2 Program agreements also

exist between high schools and community colleges. "There is a trend toward increased articulation between secondary and post-secondary institutions. The advantages of such articulation are to encourage earlier goal orientation, provide possible advanced placement, and avoid unnecessary duplication" (Criteria for Excellence ... , 1985, p. 8). In fact, Governor Michael Dukakis and the Board of Regents have recommended and supported collaborative efforts between public high schools and public colleges. They maintain that such collaborative efforts help "all potential students, but especially the non-traditional student and elderly, plan realistic strategies to achieve their desired educational goals" (Peterson, 1985b, p. 46).

The improvement of transfer opportunities for urban community college students clearly requires the sharing of data between high schools and two and four year colleges. This type of cooperation has, for the most part, been lacking. A healthy respect for student privacy--information on race and ethnic background--has often hindered the collection and analysis of significant data. If community colleges expect high schools to better prepare their students, high schools need to receive information about the performance of their graduates. In the same light, four year colleges must track transferees from community colleges and supply this information to the two year schools. In the absence of data, community colleges often regard their transfer initiatives as successful if an increasing number of students transfer to four year schools. But, if large percentages of these students drop out after transfer, can the community college transfer program really be considered successful (Donovan, 1987, pp. 19-20)?

Presently, institutional research is a low priority for many community colleges. Community colleges do not gather comparable data and define transfer students differently. "Frequently, administrators are convinced that in times of budget cuts, when the fiscal belt must be tightened, institutional research is the most expendable budget item" (Donovan, 1987, p. 19). However, without hard data, community colleges can only guess about how to improve and facilitate transfer. Moreover, without sufficient data, community colleges are unable to extend their potential transfer students the information and services the students need to correctly plan their academic programs and to prepare thoroughly for transfer. In addition, the lack of background information such as reliable institutional data and attendance patterns about community college students makes it difficult for faculty to advise the students accurately. Lastly, community colleges do not undertake consistently and regularly follow-up skills of their graduates in general and of their transfer students in particular (Donovan, 1987).

Transfer students are hard to find. Few students take the ideal route of completing an associate program in two years and then transferring promptly to a four year college. In reality, students often drop in and out of an institution, taking whatever courses suit them at the time with little or no pattern or prerequisites (Donovan, 1987, p. 2).

Community colleges do not create an academic atmosphere conducive to transfer. They concentrate their attention on the overwhelming number of students who enroll

with basic skill deficiencies and do not equally concentrate their efforts on the better students. Many community colleges do not even have honors programs for their academically prepared students which would challenge and prepare their students well for entrance in a four year college or university as well as for life long learning. In other words, since "community colleges offer a wide range of vocational opportunities and more directly serve their particular communities than do four year colleges, they often neglect or short change the liberal arts. Scholastic values are likely to suffer" (Donovan, 1987, p. 27). Consequently, community college transfer students are not prepared to transfer.

Furthermore, community colleges do not often emphasize for their first semester students the necessary information concerning transfer requirements, articulation agreements, and prerequisites. Such oversight is especially applicable, for "late afternoon and evening students who are typically ignored by a system designed to work 'nine to five' (Donovan, 1987, p. 37). About 20% of community college students succeed in transferring and earning a bachelor's degree. This transfer problem is especially true for black and Hispanic students. Although 25% of America's 475 million community college students are people of color, less than 10% of the baccalaureate student body are represented by people of color. These students do not transfer to many universi-

ties in the same numbers as white students" ("Teaching Success at 2 Year Colleges," 1987).

In conclusion, higher education at all levels should encourage inquiry, abstract logical thinking, and critical analysis. "These intellectual skills are the hallmarks of an educated thinking person. They are capacities that are not spontaneous but grow out of wise instruction, experience, encouragement, correction, and constant use. They should pervade all areas of a curriculum, i.e. sciences, humanities, arts, and occupational programs" (Shared Vision Task Force, 1987, p. 2). Community colleges especially need to provide their graduates with a balanced liberal arts-technical education. In this way, they can ensure that their graduates who plan to immediately enter the work force instead of transferring to a senior institution will have the analytical and communication skills as well as the technical expertise to perform well in an everchanging marketplace (Traicoff, 1983c). The learning of facts without values can no longer be acceptable.

We need people today who can understand both technology and its social implications, who understand their machines and also have an awareness of their place in the human spectrum. Specialization must be tempered with interdisciplinary breadth, for the solutions to the problems of our technological world demand minds of wide scope (Worcester Polytechnic Institute, 1984, p. 6).

Liberal education and technical education can be brought together in the curriculum in order to enable community college students to be comprehensively educated and prepared for life long learning (Boyer, 1987). Community colleges do provide the means for students to develop technical skills but not the motivation to place their knowledge and lives in perspective with the complex, interdependent

world of which they are a part. Community college students like their senior baccalaureate counterparts, are preparing for productive work. They should be afforded opportunities to grow beyond their narrow specialized technical area of study by means of liberal arts education (Rhodes, 1985). In short, community college students should gain from their collegiate experience the following knowledge:

The path to culture should be through a man's [/woman's] specialism, not by passing it ... a student who can weave his[/her] technology into the fabric of society can claim to have a liberal education, a student who can not weave his[/her] technology into the fabric of society can not claim even to be a good technologist (Ashby, 1966, pp. 84-85).

Fortunately, signals are beginning to emerge that suggest that the pendulum may be swinging back towards the private sector's wanting more comprehensively and liberally educated employees who are not so technically and narrowly trained (Roseheim, 1986). Unfortunately, community colleges, despite all their collaborations and linkages with the businesses and industries, have not seen and/or acknowledged these same signals. Consequently, they have not made any concerted effort to build a curriculum bridge between liberal arts education and technical arts education at their campuses for their students nor have they built strong bridges between themselves and their sister senior colleges and universities for their transfer students.

CHAPTER 3

METHODOLOGY

Introduction

This chapter discusses the methodology used in the survey research approach; the sample addressed; the evaluative instruments employed; and the procedure used in gathering data. It considers the Massachusetts' higher education system and its governance structure as it discusses the research objectives.

Massachusetts' Higher Education System

The higher education system in Massachusetts is composed of a private sector and a public sector. The private sector is described as a "\$4 billion industry in Massachusetts with 160,000 employees--[an industry from which] 68 percent of all bachelor degrees ... 86 percent of all master degrees ... 82 percent of all doctoral degrees and 96 percent of law and medicine degrees ... [are awarded]" (Blake, 1987a, p. 1). The public sector, a contemporary alternative to the long established, time honored private sector, employs 14,000 individuals and administers three segments--community colleges, state colleges, and universities--with a \$650 million budget (Blake, 1986). The university segment consists of five campuses: University of Massachusetts/Amherst; University of Massachusetts/Boston; University of Massachusetts Medical School/Worcester; Lowell University; and Southeastern Massachusetts University.

Nine campuses comprise the state college segment: Bridgewater State, Fitchburg State, Framingham State, North Adams State, Salem State, Westfield State, Worcester State, Massachusetts College of Art, and Massachusetts Maritime Academy. The Massachusetts General Court in 1958 established a state wide system of regional community colleges overseen by a Board of Regional Community Colleges. This Board determined the need for community colleges in terms of development and maintenance. Fifteen community colleges constitute this third segment of public higher education. With their dates of inception, they are as follows:

Berkshire (Pittsfield)	1960	North Shore (Beverly)	1965
Massachusetts Bay (Wellesley)	1961	Bristol (Fall River)	1966
Cape Cod (West Barnstable)	1961	Massasoit (Brockton)	1966
Northern Essex (Haverhill)	1961	Springfield Technical (Springfield)	1967
Greenfield (Greenfield)	1962	Middlesex (Bedford)	1969
Quinsigamond (Worcester)	1963	Roxbury (Boston)	1973
Holyoke (Holyoke)	1964	Bunker Hill (Charlestown)	1973
Mount Wachusett (Gardner)	1964		

Legislative action in June 1980 created the Board of Regents of Higher Education for the governance of public

higher education in Massachusetts. It also established a board of trustees for the public institutions of higher education (Peterson, 1985a).

Governance Structure

In the 1960s, a special legislative commission in Massachusetts presented the Commonwealth with a critical evaluation of the structure and status of public higher education known as the Willis-Harrington Report. The focus of the report was the examination of a thorough overhaul of the then existing governance of public higher education. This report led to appropriate legislation, the Willis-Harrington Bill, which organized by means of Chapter 15, General Laws, the public higher education sector into segments that had their institutional governance concentrated in distinct, individual boards of lay trustees. Each board set personnel and academic policies and had fiscal autonomy. The Legislature appropriated funding for each institution by line item budgets. The individual segmental boards were as follows:

- The Board of Trustees of State Colleges
 This segmental board was comprised of nine general purpose colleges [which] originally [were] four year teachers' colleges and two specialized institutions--Massachusetts College of Art and Massachusetts Maritime Academy.
- The Board of Trustees of the University of Massachusetts
 Originally having just one campus at Amherst the University later added a Boston campus and a medical school in Worcester.

- . The Board of Trustees of Southeastern Massachusetts University
The Univeristy was created from the merger of Southeastern Massachusetts Technological Institute and two existing technical colleges in 1969.
- . The Board of Trustees of the University of Lowell
The University was created from the merger of Lowell State College and Lowell Technological Institute in 1973.
- . The Board of Regional Community Colleges (MBRCC)
The community college system had begun under the initiative of former Governor Foster Furcolo and has grown to fifteen community colleges (Houlihan, 1986b, p. 182).

The MBRCC's duties included the responsibility of determining the need for education at the community and junior college level in Massachusetts and the development and execution of a comprehensive plan to meet this need. It had the authority to establish and maintain regional community colleges at suitable locations. Furthermore, the MBRCC had the jurisdiction to construct, lease, or otherwise provide any facilities for those colleges, including the right to obtain land by the process of eminent domain under the provisions of Chapter 79. It was clearly understood that its authority would not be superseded or subject to any other state board, bureau, department, or commission except as provided in Chapter 15, Section 28, General Laws (Shively, 1980).

The membership of MBRCC as stipulated in Chapter 15, General Laws, section 27, consisted of 17 members:

- Chancellor of the Board of Higher Education
- Commissioner of Education
- President of the University of Massachusetts

- President of a state college elected annually by the presidents of the state colleges, including the Massachusetts Maritime Academy
- President of a Massachusetts technical institute elected by the presidents of such technical institutes
- Chair[person] of the Student Advisory Commission to the [MBRCC]
- Eleven members appointed by the Governor, at least one of whom shall be the president of a private college, university, or junior in the Commonwealth, and at least two of whom shall be women.

The members shall serve without compensation but shall be reimbursed for their actual and necessary expenses incurred in the performance of their duties ... The Governor shall from time to time designate one of the members a chair[person]. Members of the board do not receive compensation and may not provide professional or business services to any of the institutions for reimbursement. Under present law, this would be considered an illegal conflict of interest (Shively, 1980, p. 8).

Furthermore, each community college governed by the MBRCC was allowed by Chapter 15, Section 34, General Laws, to have a Community Advisory Board which consisted of ten members appointed by the Governor. The members had to be residents of the region served by the college and at least one member of each Community Advisory Board had to be a representative of business and one had to be a representative of labor. At times, the community Advisory Board would be in conflict with the MBRCC. When such impasses occurred, the community college presidents found themselves in the middle of these conflicts. These disputes certainly did not assist the colleges involved in obtaining the resources they needed to develop new programs, acquire and

expand facilities, and increase administrative resources (Wolfman, 1985a).

In addition to the Community Advisory Board for each community college, the MBRCC also was provided by the law with a student Advisory Board (SAB) and Faculty Advisory Board (FAB). The Student Advisory Board consisted of a student representative elected by his/her peers at his/her community college. In turn, these fifteen representatives elected from themselves a spokesperson to the MBRCC for a one year term who was assigned to a permanent MBRCC committee and who had the same privileges and responsibilities as a MBRCC member. The FAB, on the other hand, was composed of faculty members elected by the faculty at each of the fifteen community colleges. FAB representatives to the MBRCC, although allowed to address the MBRCC members, were not given voting rights. Another group that interacted with the MBRCC was the Community College Presidents' Council. The Council was advisory in nature; met once a month; and made recommendations to the MBRCC. The MBRCC was known to have referred recommendations presented to it by the FAB and the SAB to the Presidents' Council for their comment (Shively, 1980). The Presidents' Council was organized into committees such as Administration and Finance; Educational Affairs; Personnel; Steering; and Facilities and Sites. It also collaborated with the community college Deans' of Academic Affairs Council in order to establish policy re-

commendations for the MBRCC (Shively, 1980).

The legislation also created the Board of Higher Education as the state wide coordinating agency for public higher education. The board consisted of seven members appointed by the Governor and one member elected from each of the segmental boards. Its mandated responsibilities "included planning, data collection, budget preparation, administration of state scholarship programs, approval of new degree programs for independent institutions, and affirmative action. Also, functioning under the umbrella of the Board of Higher Education was the Post Secondary Commission, a federally funded agency which administered federal educational grant programs in the Commonwealth" (Houlihan, 1986b, p. 182). In addition, the Secretary of Education served as advisor to the Governor on issues pertaining to education; made recommendations on behalf of the Governor regarding budget and capital outlay needs; and acted as a liason between the public and the academic community.

The governance of the public higher education in Massachusetts gradually began to be questioned by the academic, public, and legislative communities. Proposals brought forth advocated the creation of a stronger central board; the elimination of competing statutory authority which existed among the various segmental boards; and the removal of the Board of Higher Education and the Secretary of Educational Affairs Office. In September 1977, the Legisla-

ture established a special legislative commission to examine the issue of reorganization (Chapter 12 of the Acts and Resolves of 1977, later extended). This special commission was composed of twenty members: five state senators, ten state representatives, the Chancellor of the Board of Higher Education, and nine persons appointed by the Governor. The Commission's existence was placed on hold during the gubernatorial election campaign of 1978. It was revived and resumed its activities in May 1979 (Chapter 2 of the Acts and Resolves of 1980). The new Commission had twenty-five members; five state senators; ten state representatives; and ten persons appointed by the Governor. Serving as ex-officio members were the Secretary of Educational Affairs, Commissioner of Education, and the Chancellor of the Board of Higher Education. Two sub-committees, which were formed in January 1980, studied the need to restructure public higher education in Boston and the need to reorganize the governance of the whole public higher education system. Public hearings afforded all interested and concerned parties the opportunity to testify about the need to realign the entire system (Houlihan, 1986b).

The Commission members agreed that a central board of increased authority was needed in order to have the power to recommend a "single unified budget for the system [all three segments] and to selectively shift funds among institutions ... One of the main complaints with the system

as it then operated was that it required duplicative budget hearings and encouraged competitive institutional lobbying for state funds" (Houlihan, 1986b, p. 184). Beside budgetary authority, the Commission envisioned a central board which could phase out programs in the public higher education sector; be responsible for personnel and collective bargaining agreements; initiate, monitor, and oversee state wide planning; and encourage and approve new program development.

In May 1980, two reports were submitted by the Commission. The majority report recommended that segmental representation on the central board was to be terminated, and the Secretary of Educational Affairs would only serve as an advisor to the Governor. It also advocated the following:

- . establishing a 21 member Board of Governors as the central authority for public higher education; members to be appointed by the Governor, but all candidates to be screened by an 11 member nominating commission
- . granting the Board of Governors the responsibility and authority to submit one consolidated budget for the entire system to the Legislature; transfer funds among and between the twenty-eight institutions with the approval of the Senate and House Ways and Means Committees and the Secretary of Administration and Finance; approve new academic programs and terminate programs and degrees; set tuition levels for the system; coordinate collective bargaining efforts of the segments; prepare a five year plan for the system; and administer all state scholarship programs
- . establishing a 11 member advisory boards for the state colleges and universities; 10 mem-

bers to be appointed by the Governor and one student to be elected from each campus (Houlihan, 1986b, p. 184).

A minority report recommended that the Board of Higher Education, Office of the Secretary of Education, and the segmental boards be terminated. Furthermore, there will be no nominations commission to interview and review candidates for the board. It also recommended the following:

- . establishing a 15 member Board of Regents; members to be appointed at large by the Governor
- . granting the Board of Regents the following authority and duties to recommend a unified budget for public higher education to the Governor and the Legislature, receive a one line budget appropriation for the system and disburse funds to the individual institutions; to approve new academic programs as well as terminate old programs, divisions, schools, colleges and institutions; to serve as employer and establish personnel policies throughout the system, and to conduct all collective bargaining; to establish tuition levels throughout the system; to be responsible for all real property used by the system; to establish admissions standards for the system; to administer all grants, gifts, and trusts received from private foundations; to prepare a five year plan for the system; and to administer all state scholarship programs
- . establishing 9 member councils for each institution; members to be appointed by the Governor; councils to have the following authority: appoint the president, with the approval of the Board of Regents; appoint, transfer, dismiss, and award tenure to personnel as delegated by the Regents; establish and submit to the Regents for authorization maintenance and capital outlay requests; transfer funds between and among the accounts of the institution; set fees;

and develop a five year plan and mission statement for the institution for approval by the Board of Regents (Houlihan, 1986b, p. 185).

The Conference Committee, while deliberating the FY'81 state budget, addressed and settled the challenge of reorganization. The plan adopted was based on the minority report of the special commission and was appended to the FY'81 budget as an outside section--Sections 103-134 of Chapter 329 of the Acts and Resolves of 1980 (Houlihan, 1986b). A Board of Regents of Higher Education, as the governing authority, was established along with separate boards of trustees for each of the community and state colleges and universities. The Office of the Secretary of Educational Affairs, Board of Higher Education, and the existing segmental boards were abolished. "The Board of Regents was established as of August 1, 1980, and [was] granted a seven month period to coordinate a transition with its predecessor governing board and authorities. Effective March 1, 1981, the Board of Regents became the first overall governing authority with statutory jurisdiction and control over this reconstituted system of Massachusetts public higher education" (Houlihan, 1986b, p. 186). It allowed the appointment to the Board of Regents, persons with affiliations with private colleges, and it encouraged cooperative planning between public and private institutions of higher learning (Turner, 1986b).

This new board represented a major departure from a loosely coordinated system of higher education which had been in place as regional boards of each segment. Chapter 15A allowed for a juxtaposition of a central governing board with strong budgetary and programmatic authority with individual boards of trustees which were given substantial responsibility for the management and administration of individual colleges and universities. The Board of Regents has governing authority over all public institutions and is charged with overseeing the process of private sector charter and licensing review and approval (Duff, 1982).

Governance, defined as authoritative direction, is a policy making function as distinguished from the administrative function of policy implementation. The members of the Board of Regents and boards of trustees are chosen by the Governor of Massachusetts and are afforded administrative staffs which study and formulate policy options so that the members of these governing boards can provide necessary policy direction and oversight. A Chancellor is hired by the Board of Regents to coordinate their staff. As chief executive officer of the Board of Regents, the Chancellor assists the Board in determining the priorities for policy considerations; providing options for these policies as they are considered; and dealing with the collective bargaining agreements of the various segments (Duff, 1982). However, not everyone perceives the Chancellor as

unfettered from outside influences. Critics ask how a public official as the Chancellor of public higher education can be truly independent while accepting cash from corporations.

The Duff Fund [former Chancellor] and the Jenifer Fund have been established from contributions given by high tech firms and business persons. David Beaubien, a Regent, feels that Chancellor Jenifer is badly handicapped because he lacks a discretionary fund to pay for entertainment, travel, and other costs not covered by the State. Beaubien claims the fund is for the system, explaining that 'college presidents have alumni supported trust funds to dip into for such expenditures.' Another Regent Joseph Henson, President of Prime Computer, has sent out letters to the corporate sector asking business people to contribute between \$2000-\$10,000 for the special higher education fund. Henson stated that a special sub-committee of the Board of Regents will oversee this account. [Furthermore,] Henson indicated that Regents' lawyers concluded 'there's no question about the legality whatsoever of the fund' (Phillips, 1987b, p. 6).

The presidents are the chief executive officers of their institutions and are accountable to their board of trustees who, in turn, are responsible to the Board of Regents and the Chancellor. They are appointed by the trustees and the president of each public higher education institution are responsible with appropriate reference to collective bargaining agreements for cooperating with internal governance structures of their institutions (Duff, 1982). These two parties work in concert with representative faculty groups and their established governance struc-

tures and, in some categories of institutions, in personnel matters as appropriate (Duff, 1982). The trustees are entrusted with the authority to hold presidents responsible for exercising the leadership role necessary to formulate academic policies at the local level institutions and accountable for implementing the policy regulations of the Regents and trustees. They have the following responsibilities:

- . major policy issues--academic programs, admissions, maintenance and capital budget, personnel and labor relations, and master planning
- . administration of their respective institutions and implementation of policies established by the Board of Regents--establishment and operation of academic policy and programs, establishment of fees and trust funds, approval of personnel actions and implementation of affirmative action programs
- . establishment of policies necessary for the administrative management of personnel, staff services, and the general business of the institution under its authority subject to the authority of the Board of Regents under the provisions of Chapter 15A (Duff, 1982, p. 2).

All presidents and university chancellors participate in the Council of Chief Executive Officers of Public Institutions of Higher Education in Massachusetts known as the Council of Public Presidents/Chancellors. The Council's objectives are to assist and advise the Chancellor and Board of Regents where appropriate; to develop cooperation and mutual support among the several institutions; and to promote discussion on principal educational issues. The re-

solutions adopted by the Council are advisory in nature and in no way determine state policy (Bylaws 1). Likewise, the chief executive officers of public two year colleges participate in the Council of Community College Presidents. In 1965, the Council was formed to serve as a vehicle for community college presidents to make recommendations to the Chancellor and the Board of Regents (Shively, 1987a). Similar to the Council of Public Presidents and Chancellors, this Council has a chairperson, a vice chairperson, and a secretary. It is advisory in nature and has committees which address personnel, collective bargaining, budgetary, student services, and academic issues. In regard to contractual agreements, the Council has direct impact in regard to non-unit professionals and non-unit classified matters (Scibelli, 1987a). In addition, the Council recommends policies system wide. However, the Regents can override any policy which may come into conflict with authorized Regents' policy. Both councils and their proceedings are governed by the latest edition of Robert's Rules of Order.

Moreover, the Chancellor works with the boards of trustees and the presidents in order to determine that "policy options in these areas which he presents to the Board of Regents have reasonable support" (Duff, 1982, p. 2). However, the Board of Regents are not the highest authority in terms of higher education policy in Massachusetts. According to Senator Richard Kraus (D-Arlington), "the Board of

Regents never fully exercised its authority, and the Legislature passed education bills on issues that could have been handled by the Regents. This year [1987] ... a full package of education matters were turned over to [Chancellor] Jenifer by the Legislature's Education committee for the Regents to handle" ("Jenifer writes to ... ," 1987, p. 22). Chancellor Jenifer concurred with Senator Kraus's assessment. Admitting that "individual lawmakers had set higher education policy ... in the past" (Phillips, 1987e, p. 25), Jenifer promoted the concept of the Board of Regents as the source to set comprehensive policy. He believed that direction from the State Legislature is required to make clear "who is in charge and whether there is a unified system of higher education in the Commonwealth" (Curwood, 1987k, p. 49). Also, the Regents' Chairperson Edward Lashman explained that the Regents "can not promulgate regulations" (Curwood, 1987k, p. 49). What does occur is the Chancellor forwards to the Legislature "his best judgment, based on detailed analysis of the issues facing the state higher education system. It's up to the Legislature to set the Commonwealth's policy" ("Jenifer says Legislature ... ," 1987, p. 1).

The growth and success of the public higher education system relies on a productive relationship between the Regents and the executive and legislative branches of state government and the individual boards of trustees. Chancel-

lor Jenifer contended that "the Board of Regents and the Massachusetts' Legislature are forging a unique partnership that will create a strong, coordinated policy for state colleges and universities" ("Jenifer says Legislature," 1987, p. 1). However, the higher education community in Massachusetts is not unanimous in support of such a partnership. President John Silber, Boston University, expressed reservations about the policies of the Board of Regents. He believed that the Regents demonstrate a "'policy of unbridled expansion in the state sector of higher education in [program areas such as nursing, allied health sciences, social work, and engineering as well as] reckless [disregard for] the consequences of such expansion to the independent sector and the taxpayers'" (Muriel Cohen, 1987c, p. 37). He also objected to community colleges having dormitories because he foresaw their petitioning the Regents and the Legislature for baccalaureate degree awarding authority. Furthermore, Silber stated that the crippling of private sector higher education by means of the public sector's duplication of programs already in existence is not consistent with a healthy economic future for Massachusetts. He questioned whether the taxpayers are willing or able to "assume the burden of replacing [the private sector completely]" (Blake, 1987a, p. 1). His public request that the Governor and the Legislature's leadership remind the Board of Regents of their statutory mission emphasized

the fact that the Board of Regents is not an independent body.

Sample

The Board of Regents of Higher Education and administrative officers of eight randomly selected community colleges were included in the sample of the survey research approach used to examine the place of comprehensive liberal education as a curricular challenge for community colleges. The Chairperson and the Chancellor of the Board of Regents were interviewed. The researcher also consulted the Vice Chancellors of Academic Affairs, Planning and Program Development, and Fiscal Management as well as Regents' staff members--Fiscal Policy Analysts, Director of Data Quality, and Director of Academic Programs and Planning.

Eight community colleges were visited:

Eastern Massachusetts

Bunker Hill
Massachusetts Bay
Roxbury

Northern Massachusetts

Middlesex
North Shore

Central Massachusetts

Quinsigamond

Western Massachusetts

Holyoke
Springfield Technical.

The researcher conferred with the following administrative officers at the community colleges: Presidents, Deans of Academic Affairs, Directors of Institutional Research, Registrars, Deans of Students, Deans of Planning and Research, and Directors of Data Processing.

Rating Instruments

Data were collected from three sources--institutional documents, interview questionnaires, and statistical information.

Institutional Documents

Five Year Plan: In April 1982, the Board of Regents approached and issued to all public colleges and universities guidelines for institutional mission definition and directives for planning. These guidelines and directives provide the foundation for institutional planning processes and the direction for the growth and development of public education in the form of a Five Year Plan. This plan states clearly the institutional long range goals and objectives of each community college (Traicoff, 1983a). Furthermore, it is the product of a well defined process.

First, the mission and goals of the college are developed and approved by the college community.

Second, external environmental factors are continually monitored and assessed in order to make relevant assumptions about the external environment and its potential impact on the future of the college.

Third, internal environmental factors are analyzed to ascertain institutional strengths and weaknesses.

Fourth, by analyzing external and internal environmental realities and formulating realistic assumptions, implications can be derived which impact on the development of reasonable and tangible five year objectives. Once the college has determined its long

range objectives, the final planning step involves the development of strategies and the identification of resources necessary to implement the Five Year Plan. Budget requests then are made, in part, on the basis of institutional needs for implementation of the Five Year Plan (Traicoff, 1983a, p. 4).

In short, the Five Year Plan presents the unique characteristics of each public institution of higher education. These characteristics may be intrinsic in terms of low cost and convenient location, or they may be a matter of policy or choice as regards academic programs, student support services, and quality standards.

Enrollment Management Plan: The Board of Regents released a report in 1983 entitled Shaping the Future of Massachusetts Higher Education: Demographic Change and Enrollment Prospects and acknowledged the importance of enrollment as an issue which impacts the entire public higher education system. Institutions were asked to do their own enrollment planning, "integrated with the long range planning process at the campus and system levels" (Ivan, 1984, p. 1). The purpose of this plan is not to "produce immutable forecasts of future enrollments but rather to enable individual institutions to assess the potential impact of demographic changes in those communities most likely to affect their enrollment yield" (Ivan, 1984, p. 1). It requires institutions to study high school graduation rates, college attending rates of traditional and non-traditional applicant pools, and enrollment yield rates. The plan also

takes into account the data constraints and distinct needs of each campus as well as admissions philosophy, residential opportunities, and special services. Moreover, it includes an assessment of alternative institutional responses to potential enrollment changes and of the implications of these responses for institutional program planning and resource allocation. The researcher consulted the 1986 reports.

Long Range Plan: All institutions of the public higher education system are required by the legislation which created the Board of Regents to revise their long range plans each year. This plan includes a progress report on the Five Year Plan implementation, focusing on any new initiatives proposed; reasons for delays in implementation of previous planning recommendations; and a description of accomplishments since the last long range plan update. Also, this plan contains a description of the relationship between the long range plan and campus fiscal budget priorities. It incorporates the findings of state wide and institutional program reviews as well as accreditation self-studies and reports. Furthermore, it may take into account the steps implemented to improve the recruitment and retention of minority and other non-traditional students (Ivan, 1984). The researcher studied plans for 1982, 1983, 1984, 1985, 1986, and 1987.

Strategic Decisions-1987: New planning guidelines known as

Strategic Decisions have been established to lead institutions to develop a new Five Year Plan as well as a stronger relationship between planning and operations. These new guidelines intend to accomplish the following objectives:

- . To give each college and university an opportunity, after five years of experience as part of a new system, to provide the Regents with a realistic appraisal of the institution's current status
- . To afford each campus the opportunity to reflect upon and reaffirm or revise the broad strategic decisions that guide it and to identify anew the major issues it must address over the next five years
- . To challenge campuses to set specific goals of excellence appropriate to their missions and to provide the Regents with detailed proposals for achieving these objectives
- . To improve long range decision making and resource management through integration of campus planning and budgetary processes (1987-1988 Campus Planning Guidelines, 1987, p. 1).

The rationale for Strategic Decisions is that this process provides the basic sense of direction in terms of what kind of institution each college or university wants to be. It also affords the institutions the opportunity to "have their mission statements and to arrive at sharper definitions of their goals, objectives, and priorities" (1987-1988 Campus Planning Guidelines, 1987, p. 2). As in the original Five Year Plan, these new plans address each institution's mission, character, image, the students and communities it serves, the level and distribution of its

resources, and the strengths and weaknesses of its programs. The researcher consulted the Strategic Decisions-1987 Reports.

Liberal Arts and Sciences Program Review-1987: The Board of Regents has the authority by means of legislation to call for system wide program reviews. The purpose of a program review is to ensure that programs meet the following criteria:

- . The needs of students and of the Commonwealth and ensure access
- . The specific standards of quality relevant to each type of program for purposes of identifying and supporting high quality programs and also for identifying programs which need improvement
- . The need to affect priorities established by the system's long range planning process by directing limited resources toward appropriate programmatic objectives (Duff, 1982, p. 55).

In 1986, public institutions of higher education began to prepare for the Liberal Arts and Sciences Program Review called for by the Regents. As the appropriate administrative officers prepared the data required for the review, the institutions selected outside evaluators who are then approved by the Board of Regents. The institutions were obligated to provide the evaluators with quantitative reports on the Liberal Arts Program. After reviewing these documents, the evaluators visited the campuses; interviewed some Liberal Arts and Sciences faculty;

met with some administrators; and observed the campuses. Then the evaluators wrote reports on their visits and submitted them to their host institution. In turn, the institutions reviewed the evaluators' reports and prepared the required final report to the Board of Regents (Wylie, 1987). According to Dr. Elsa Gomez (1987), Director of Academic Programs, Board of Regents, the Liberal Arts and Sciences Program Reviews were to be submitted to the Regents by June 1987.

Budgets: Budget requests are integral steps in the progress a college plans to make during any specific academic year (Scibelli, 1984c). Also, they directly follow the formulation of a college's long range plan. Furthermore, "the college's fiscal autonomy is defined by its ability to re-request cash advances and move monies from one college account to another without state approval. Such freedom allows the institutions to handle unexpected expenditures with relative efficiency" (Wolfman, 1985a, p. 108). The Regents have established a two level budget formula that begins with the preparation of a maintenance budget which represents the funding required to duplicate present operations. This maintenance budget includes narratives, inflationary adjustments, enrollment adjustments, and additions or deductions from last year's base to arrive at a point of level operational support (Traicoff, 1985a). Funds are then added to support new programs and services

in accordance with the college's long range objectives and priorities as approved by the Regents.

[In other words,] the annual state appropriation is the vehicle through which all state agencies are funded. The Board of Regents of Higher Education sets policy for all public institutions of higher learning and awards state maintenance funds for the operations of these institutions.

The Board of Regents awards funds through a formula budget model and a new requests component for the public college campuses. Theoretically, the budgetary model is a formula intended to identify and define the basic factors to be considered in developing a budget request for a given campus; it also provides a set of rules for developing funding level requests. Finally, the formula provides criteria for evaluating each funding request submitted by the campuses. The formula uses the college's actual appropriation as the foundation for projecting the succeeding year's base. The formula is comprised of eleven components:

Total Fiscal Year Allocation

Total funds (01-16) allocated for maintenance of college

Salary Adjustments

Funds allocated to the college for collective bargaining increases

One Time Deductions

Funds deducted from the total fiscal year allocation which represents one time costs

Annualization

Additional funds needed to annualize any new positions approved during the previous fiscal year (Wolfman, 1985a, p. 105).

Parity

Funds required to maintain system wide minimums for a consistent program of maintenance and repair of facilities and replacement of equipment

Enrollment Gain/Loss

Addition or deduction of funds based on a 1% or greater difference between Fall promised and actual enrollments

High Cost Course Adjustment

Funds allocated in recognition of additional costs associated with certain programs

FTE Equalization Adjustment

Funds allocated to equalize different dollar rates in per FTE growth which have occurred since FY'81

Inflation

Additional funds for support costs and utilities based on an inflation factor determined by the Regents

Proposed Inter-Subsidiary

Funds transferred to and from other subsidiaries after application of the above adjustment

Mandatory Special Consideration

Additional maintenance obligations occurring in an upcoming fiscal year as a result of the new building scheduled for occupancy and data processing roll-over costs and maintenance associated with pick up of donated data processing equipment

The new requests are comprised of five major areas: (1) Instructional Program; (2) Instructional Support; (3) Management/Administration; (4) Information Systems; and (5) Plant.

Evaluations and recommendations for funding in each new request category are developed in accordance with the Regents' priorities and the specific criteria outlined by the Regents.

In order to comply with the Regents' budget process as described above, a college begins its internal planning process in January of each Year (Wolfman, 1985a, p. 106).

However, "problems arise when the budget leaves the Regents and enters the multi-leveled political process that ultimately results in allocation. By the time [the budget]

reaches the colleges, many adjustments have been made, which impact the colleges' ability to operationalize [their] long range plans" (Traicoff, 1985a, p. 3). In other words, the budget may experience cuts in maintenance funds while funding new programs with the consequent increase in enrollment. Community colleges then are required to reach FTE [Full Time Equivalent] levels without the "necessary underpinnings of adequate operational support" (Traicoff, 1985a, p. 4).

The planning process adopted by the Regents is extremely difficult as far as budget impact and budgetary projections are concerned. In planning for FY'85, community colleges submitted materials in May of 1983 to the Regents. Community colleges do not know the FY'84 allocation, so they must assume items are funded in FY'85. However, if these items are not, then the FY'86 planning information is already obsolete with its concurrent impact on subsequent fiscal years. Until the items can be more closely coordinated at the state level, the Regents will have to remain flexible in their allocation process (Van Winkle, 1984c, p. 1).

Consequently, public colleges and universities will be held increasingly accountable. Appropriations will be based on a "formula based budgeting process which includes productivity and performance evaluation measurements as major pieces" (Traicoff, 1983a, p. 27). Community colleges will need to continue to monitor faculty and staff productivity and to improve on their planning and management information systems. Traicoff (1985a) recommended that community colleges incorporate good short range planning sys-

tems. By doing so, he proposed "there is more opportunity to keep some control and thus keep a greater degree of connectedness between long range planning and budget allocations" (p. 4). The researcher studied budgets for fiscal years 1985, 1986, 1987, and 1988.

College Catalogs: Catalogs for the academic years 1985 to 1988 were consulted by the researcher. They serve as introductions to the community colleges and their many programs and services. They provide information about college policies, admissions, grading, financial assistance, curriculum, academic programs, course descriptions, personnel, college facilities and resources, and location.

The researcher requested these documents from each of the eight community colleges and Board of Regents. The presidents or administrative officers designated by them assumed the responsibility of forwarding the materials. The following offices of the Board of Regents with the approval of the Chancellor responded to the researcher's request: Office of Planning and Research--Five Year Plans, Enrollment Management Plans-1986, Long Range Plans-FY'82, '83, '84, and '85, and Strategic Decisions Plans-1987; Office of Fiscal Management--FY'85, '86, '87, and '88 budgets; and Office of Academic Affairs--Liberal Arts and Sciences Program Reviews-1987.

Interview Questionnaires

The questionnaires [See Appendix A] were used by the

researcher as a device to structure the context of the scheduled interviews held with the administrators of the Board of Regents and the eight randomly selected community colleges. The intent of interviewing the Board of Regents' staff was to gather information about the structure of public higher education in Massachusetts in terms of governance, mission, and programming and to ascertain the Regents' awareness of the role of liberal arts in the community college curriculum. The researcher sought to interview the Chairperson of the Regents; the Chancellor; Vice Chancellors of Academic Affairs, Fiscal Affairs, and Planning; Director of Data Quality; Director of Planning and Research; and Fiscal Policy Analysts. All agreed to be interviewed except one Vice Chancellor. On the other hand, the purpose of consulting the Presidents and Deans of Academic Affairs of community colleges was to learn about the types of degrees offered; the colleges' missions and goals; programming; and the place of Liberal Arts and Sciences in the colleges' academic curriculum. All agreed to be interviewed except one Dean of Academic Affairs.

Statistical Information

The researcher developed a statistical information request form [See Appendix B] in order to uniformly gather data about the liberal arts program, its electives, and its requirements; student enrollments; student demographics; course offerings; course enrollments; student trans-

fer to community colleges; and community college student transfers to four year institutions for the following periods of time: Fall 1985, Spring 1986, Fall 1986, and spring 1987. The researcher presented and discussed this form with each of the chief executive officers during the scheduled interview.

Procedure in Gathering Data

The survey research approach provided for data to be collected in a sequential manner. The steps involved getting letters of introduction written; scheduling interviews; determining a research schedule at the Regents; sending letters confirming the researcher's submission of data requests; and making follow-up telephone calls.

Step 1: Letters of Introduction

In December 1986, the researcher met with President Harold Shively of Bunker Hill Community College where she is a faculty member. She requested that he write a letter of introduction to the presidents of the community colleges involved in the sample. He agreed and wrote letters of introduction which described the researcher's teaching tenure in the Massachusetts' community college system; endorsed the thesis of her doctoral dissertation; and encouraged his fellow presidents' cooperation. The researcher also conferred with Dr. Kathleen Assar, Chairperson of the Community College Council of Deans of Academic Affairs, and asked her to introduce the researcher's thesis to her colleagues. She

did so by directly contacting the other Deans of Academic Affairs and informing them of the researcher's intentions to interview them.

Step 2: Interviews

Starting in December 1986, the researcher scheduled interviews with the administrative officers of the Board of Regents and randomly selected community colleges once the letters of introduction were sent by President Shively. Before approaching the Regents' staff to ask for access to necessary documents, the researcher met with Chancellor Franklyn Jenifer and then with Edward Lashman, Chairperson of the Board of Regents. During the interviews, she delineated the objectives of the dissertation; described the data she needed; and sought their approval to meet with members of the Regents' staff in order to acquire the necessary materials and information. Subsequently, once the approval was given, the researcher met and interviewed the Vice Chancellor of Academic Affairs, Dr. Norma Rees; the Associate Vice Chancellor of Academic Affairs, Dr. Tossi Taylor; Vice Chancellor of Fiscal Management, John Finnegan; and Vice Chancellor of Planning and Research, Dr. Peter Mitchell. The Vice Chancellors approved the researcher's requests to meet with their appropriate staff and agreed to provide access to the requested documents. Eventually, the researcher consulted the Director of Data Quality, Ronald Biron; Director of Academic Programs, Dr. Elsa

Gomez; and Director of Planning, Laura Clausen. She also discussed her data requests with administrative staff associates in the Office of Academic Affairs, Jay Littell and Catherine Smith, and Fiscal Policy Analysts, Karen Sayles and Trisch Kruza. Moreover, the Chancellor agreed to allow the researcher to work directly at the Regents' office in order to study the necessary documents. The researcher was afforded office space by the Vice Chancellor of Fiscal Management, John Finnegan. She posted a schedule of her research hours in the Offices of Academic Affairs, Fiscal Management, and Planning and Research. Each schedule was accompanied with a log in which the researcher indicated her arrival and departure times of her visits to the Regents' office.

Similarly, the researcher met and received the approval of the eight community college presidents before she contacted any administrative officers. During the interviews, she described the objectives of the dissertation and the data she needed. Moreover, she received the assurance of the presidents that they would inform their staff about her request to meet with them in order to gather specific data as well as their approval of her campus visits and subsequent interviews with other administrators. In addition, the presidents, once reviewing the statistical information request [See Appendix B] referred the researcher to the following personnel--Deans of

Academic Affairs, Directors of Institutional Research and Development, Registrars, Deans of Students, and Directors of Data processing. Only after having received the approval of the Presidents did the researcher then schedule interviews with the Deans of Academic Affairs.

Step 3: Correspondence

After the researcher completed the interviews of all appropriate administrators of the individual campuses, she let a period of time transpire in order to enable the colleges to gather the documents and data she requested. Her letters contained references to the scheduled appointment date and to the nature of the interview. In the correspondence, she described once again the materials she requested and mentioned the individual institution's agreement to provide them. She included a statement discussing how she planned to pick up the materials if mailing the documents would not be feasible.

Step 4: Follow-Up Telephone Calls

Once again, the researcher waited for a response from the community colleges to her letters. In those circumstances where she did receive responses--written or verbal, she acted in accordance to them. When no responses were forthcoming, she made follow-up telephone calls referring to her correspondence and continued to call until she received clarification of the respective college's intent to provide the data as originally agreed.

Table 1 points out the degree of response for the documents and statistical information by each sample community college. Only one community college, Holyoke, responded 100% and provided the researcher with all she requested: Five Year Plans; 1986 Enrollment Management Plan; 1982, 1983, 1984, and 1985 Long Range Plans; 1987 Liberal Arts and Sciences Program review; 1987 Strategic Decisions Plan; FY'85, '86, '87, and '88 budgets; 1985-1986 and 1986-1987 college catalogs; and statistical information concerning student enrollments and demographics; course offerings and enrollments; and student transfers for Fall 1985, Spring 1986, Fall 1986, and Spring 1987 terms. Springfield Technical provided 67% of all the documents requested. Six community colleges provided less than 50% of all the documents requested: Bunker Hill (33%); Mass Bay (7%); Middlesex (33%); North Shore (40%); Roxbury (33%); and Quinsigamond (0%). Sixty-three percent of the community colleges submitted to the researcher their Five Year Plans and Liberal Arts and Sciences Program Reviews of 1987. Twenty-five percent offered their Enrollment Management Plan of 1986. Seventy-five percent provided the researcher some statistical information according to her requests [See Appendix B]. Moreover, 75% of the community colleges made their college catalogs for 1985-1986 available, and 88% had their catalogs for 1986-1987 available for the researcher. However, only 13% had their FY'85 budgets and 25% provided the

TABLE 1
 PERCENTAGE OF RESPONSE TO REQUESTS FOR
 DOCUMENTS BY EACH SAMPLE COMMUNITY COLLEGE

Documents Requested	Bunker Hill	Holyoke	Mass Bay	Middlesex	North Shore	Roxbury	Quinsigamond	Springfield Tech
Five Year Plan	-	+	-	+	+	+	-	+
Enrollment Plan-1986	-	+	-	-	+	-	-	-
Long Range Plan								
1982	-	+	-	-	-	-	-	-
1983	-	+	-	-	-	-	-	-
1984	-	+	-	-	-	-	-	+
1985	-	+	-	-	-	+	-	+
Liberal Arts Review-1987	+	+	-	+	+	-	-	+
Strategic Decisions-1987	-	+	-	-	-	-	-	+

TABLE 1-Continued

Documents Requested	Bunker Hill	Holyoke	Mass Bay	Middlesex	North Shore	Roxbury	Quinsigamond	Springfield Tech
Budgets								
FY'85	-	+	-	-	-	-	-	-
FY'86	+	+	-	-	-	-	-	-
FY'87	-	+	-	-	-	-	-	+
FY'88	-	+	-	-	-	-	-	+
College Catalogs								
1985-1986	+	+	-	+	+	+	-	+
1986-1987	+	+	+	+	+	+	-	+
Statistical Information Requests	+	+	-	+	+	+	-	+
Total:	33%	100%	7%	33%	40%	33%	0%	67%

researcher with FY'86, FY'87, and FY'88 budgets. Also, only 25% submitted to the researcher their Strategic Decisions Plan of 1987. In regard to the long range plans, the responses varied. Thirteen percent gave the researcher copies of their 1982 and 1983 long range plans. Twenty-five percent gave her their 1984 long range plans while 38% submitted to the researcher their 1985 long range plan.

Table 2 depicts the response of the Regents to the researcher's request for documents concerning the eight community colleges under study. The Regents were able to provide 74% of all the documents as listed in Table 1 concerning Holyoke Community College. The Regents had 60% of the documents for Mass Bay, North Shore, and Quinsigamond. In contrast, the Regents only provided 47% of the documents for Bunker Hill, Roxbury, and Springfield Tech and 40% of these documents for Middlesex Community College. In regard to the types of documents made available, the Regents had 100% compliance with the requests for Five Year Plans and budgets for FY'85, FY'86, Fy'87, and FY'88. They had 50% compliance for Liberal Arts and Sciences Program Review Reports of 1987 and Enrollment Management Plans of 1986. In contrast, the Regents had 0% with requests for college catalogs and statistical information requests. Also, the Regents had 13% of the 1982 Long Range Plans and Strategic Decisions Plans of 1987. Concerning the 1983 Long Range Plans, the Regents had 25% compliance and 88% com-

TABLE 2

PERCENTAGE OF RESPONSE TO REQUESTS
FOR DOCUMENTS BY THE REGENTS

Documents Requested from the Regents	Colleges on File at Regents							
	Bunker Hill	Holyoke	Mass Bay	Middlesex	North Shore	Roxbury	Quinsigamond	Springfield Tech
Five Year Plan	+	+	+	+	+	+	+	+
Enrollment Plan-1986	-	+	+	-	+	-	+	-
Long Range Plan	-	+	-	-	-	-	-	-
1982	-	+	-	-	+	-	-	-
1983	-	+	-	-	+	-	-	-
1984	+	+	+	+	+	+	+	+
1985	+	+	+	-	+	+	-	+
Liberal Arts Review-1987	-	+	+	-	-	-	+	+
Strategic Decisions-1987	-	-	-	-	-	-	+	-

TABLE 2-Continued

Documents Requested from the Regents	Colleges on File at Regents							
	Bunker Hill	Holyoke	Mass Bay	Middlesex	North shore	Roxbury	Quinsigamond	Springfield Tech
Budgets								
FY'85	+	+	+	+	+	+	+	+
FY'86	+	+	+	+	+	+	+	+
FY'87	+	+	+	+	+	+	+	+
FY'88	+	+	+	+	+	+	+	+
College Catalogs								
1985-1986	-	-	-	-	-	-	-	-
1986-1987	-	-	-	-	-	-	-	-
Statistical Information Requests								
	-	-	-	-	-	-	-	-
Total:	47%	74%	60%	40%	60%	47%	60%	47%

pliance of the 1984 Long Range Plan of all the eight community colleges studied.

Table 3 reveals that the Regents and eight community colleges complied to the researcher's request for documents and statistical data 43.4% and did not comply 56.6%. Documents such as the budgets (62.5%) and Five Year Plans (81.5%) were made available. Yet, both groups did not respond to the statistical data requests of the researcher to any significant extent, only 37.5% compliance. Furthermore, the groups' compliance to requests for the following documents was minimal: 1982 Long Range Plans (13%); 1983 Long Range Plans (19%); and Strategic Decisions Plans of 1987 (19%).

Table 4 indicates the offices to which the researcher was directed by the presidents of the community colleges in order for her to get the documents and statistical data as she needed. The presidents of Holyoke and Quinsigamond were the sources for most of the documents. Roxbury's Assistant to the President, on the other hand, was the staff person designated to provide the researcher with the necessary documents and data. In contrast, the Deans of Academic Affairs of Mass Bay and Middlesex were the administrators designated as the sources of the researcher's requests while at Bunker Hill, the Dean of Planning and Research was the administrator identified as a resource for the college documents and statistical data. The Directors of

TABLE 3

PERCENTAGE OF RESPONSES TO REQUESTS FOR DOCUMENTS
BY REGENTS AND BY EIGHT COMMUNITY COLLEGES

Documents Requested	Regents and Colleges Compliance	Non-compliance
Five Year Plan	81.5%	18.5%
Enrollment Plan-1986	37.5%	62.5%
Long Range Plan		
1982	13.0%	87.0%
1983	19.0%	81.0%
1984	56.5%	43.5%
1985	56.5%	43.5%
Liberal Arts Program-1987	56.5%	43.5%
Strategic Decisions-1987	19.0%	81.0%
Budgets		
FY'85	56.5%	43.5%
FY'86	62.5%	37.5%
FY'87	62.5%	37.5%
FY'88	62.5%	37.5%
Catalogs		
1985-1986	37.5%	62.5%
1986-1987	44.0%	56.0%
Statistical Information	37.5%	62.5%
Total:	43.4%	56.6%

TABLE 4
CAMPUS SOURCES OF DATA

Offices to which researcher was directed	Data Requested			
	Five Year Plan	Enrollment Manage- ment Plan-1986	Long Range Plans	Strategic Decisions
President	Holyoke Middlesex Quinsigamond Roxbury	Holyoke Quinsigamond	Holyoke Quinsigamond Roxbury	Holyoke Quinsigamond
Assistant to President		Roxbury		Roxbury
Dean of Academic Affairs	Mass Bay Springfield Technical	Mass Bay Springfield Technical	Mass Bay Springfield Technical	Mass Bay Springfield Technical
Director of Insti- tutional Research	North Shore	North Shore Springfield Technical	North Shore Springfield Technical	North Shore Springfield Technical
Dean of Planning and Research	Bunker Hill	Bunker Hill	Bunker Hill	Bunker Hill

TABLE 4-Continued

Offices to which researcher was directed	Data Requested				Statistical Information
	Budgets	Liberal Arts Pro- gram Reviews	College Catalogs		
President	Holyoke Quinsigamond	Middlesex Quinsigamond	Holyoke Middlesex Quinsigamond Roxbury	Holyoke Quinsigamond	
Assistant to President	Roxbury	Roxbury		Roxbury	
Dean of Academic Affairs	Mass Bay Middlesex	Bunker Hill Holyoke Mass Bay North Shore Springfield Tech	Bunker Hill Mass Bay North Shore Springfield Technical	Mass Bay Middlesex	
Director of In- stitutional Re- search	North Shore Springfield Technical			Holyoke North Shore Springfield Technical	
Dean of Planning and Research				Bunker Hill	

Institutional research of North Shore and Springfield Technical were identified for the researcher as resources for all her data and document requests. Moreover, the Deans of Academic Affairs at Bunker Hill, Holyoke, Mass Bay, North Shore, and Springfield Technical provided copies of their Liberal Arts and Sciences Program Reviews for 1987 as well as college catalogs.

CHAPTER 4

RESULTS OF THE STUDY

This chapter discusses the methodology and results obtained from the treatment of the data collected from the Massachusetts Board of Regents of Higher Education and eight randomly selected community colleges. Three objectives are considered and examined.

The First Objective

Introduction

The first objective was to identify the extent to which the mission and goals of community colleges in Massachusetts include liberal arts learning. The researcher acquired a sense of the community college mission by interviewing the Regents and community college presidents and by getting responses from the presidents in regard to their attitudes toward the degrees their colleges offer. The researcher wanted to determine if the mission of their college was reflected in their explanation of the value and role of the degrees their college grants. After the researcher interviewed the presidents of community colleges in order to learn their perceptions of the importance of the degrees their college grants their students, she then examined what the administrators considered the role of these degrees in regard to the entire scope of higher education in Massachusetts. Before the researcher concluded her study of the mission of community colleges, she sought to learn how much autonomy

community colleges do have in regard to establishing the goals which reflect the mission statements. Her intent was to learn if, in fact, the community colleges had the authority to promote a greater emphasis on liberal arts learning if they so desired.

Direction of Public Higher Education

To understand the role of liberal arts, one must first comprehend the philosophical direction of the Massachusetts public higher education system. The Honorable Governor Michael Dukakis stated in a campaign position paper, "Economic Prosperity and Jobs for Our People," that the future of Massachusetts relies on the strength of its economy. "He articulated that a healthy, vibrant, and prosperous economy provided people with jobs they needed and that a strong private sector was the foundation for needed public services" (Peterson, 1983a, p. 18). Governor Dukakis acknowledged that the creation of employment opportunities was not sufficient. "Without a tradition of education excellence, Massachusetts would be an economic wasteland. The eighties called for more and better education--not less" (p. 19). To respond to the challenge, the Governor advocated increased State support for the public higher education sector. Garrison (1983) supported the Governor's description of the relationship between business and education. "The national and international marketplaces are forcing American business, industry, and education to change their methods of doing business. Col-

leges that refuse to build and cross the bridges demanded by new technology and local employment needs will be left stranded on the roadside, watching the traffic go whizzing past" (Garrison, 1983, p. 23).

Despite the significance of public higher education to the growth of the Commonwealth in terms of human resources and economy, Chancellor Joseph Duffey, University of Massachusetts, Amherst, admitted that there is in Massachusetts "a lingering ambivalence about public higher education" (Curwood, 1987r, p. 24). In some circles, it is considered a recent innovation. In others, it is considered low priced competition for the private institutions of higher education. In still other circles, public higher education is regarded as a second class citizen of the Commonwealth. Chancellor Franklyn Jenifer (1986a), Board of Regents, explained that the Massachusetts public higher education system has experienced fifteen years of capital austerity. "There is a broad consensus that the condition of our college and university facilities requires immediate attention if we are to sustain our commitment to excellence" (p. 2). Furthermore, Dr. Jenifer believed both excellence and access should merge to improve public higher education (Curwood, 1986d).

Massachusetts stands above the national average in the percentage of its 17 and 18 year olds who graduate from high school (i.e., Massachusetts 78.9% versus U.S. 72.0%), but fares less well among industrial states. The Common-

wealth also lags in terms of the proportion of the graduates going on to college. For example, in Connecticut, of the 81% of the age group which graduates from high school, approximately 60% go on to post secondary study; in Massachusetts, the figures is only 50%. Connecticut is a somewhat wealthier state than Massachusetts but has a higher percentage of minorities in its high school population. Its record, therefore, is a plausible model of future trends in Massachusetts (Duff, 1983, p. 25).

Board of Regents

Chancellor Jenifer (1986a) proposed that public higher education should address a broad range of educational needs which encompass those of the individual, the professions, business, industry, and the Commonwealth. Jenifer (1986b) admitted that despite the significant progress made in regard to providing equal opportunity and ensuring non-discrimination in the Massachusetts public higher education system, "the lingering effects of those past practices and policies are still manifested in the under representation of minorities and women within the faculty ranks and student enrollments" (p. 3). In view of the work yet to be done in the fostering of excellence and access, the Massachusetts public higher education system stands ready to meet the challenge. Of its three segments--community colleges, state colleges, and universities--the community colleges represent the foundation from which students can build their academic and career futures. According to Edward Lashman (1987), Chairperson, Massachusetts Board of Regents of Higher Education, the mission of community col-

leges is clear.

First, community colleges provide the opportunity for students to have access to a four year undergraduate liberal arts education when they do not follow the traditional path of going directly to a four year college or university directly from high school. Second, community colleges provide training in certain job skills in order to meet the demands of the marketplace. They should adjust their curricula to meet these demands, Lashman stated. Third, community colleges provide opportunities for non-traditional students--older students, welfare recipients, unemployed workers, English as a Second Language students, and employees who need to retrain--to acquire whatever level of education they desire or are capable of attaining. Lashman contended that the third mission of community colleges is harder to specify because the nature of the category of students whose needs are more varied than the traditional college student is more fluid. In short, the community colleges serve as the pointmen of the entire public higher education system. Their mission as designated by the Board of Regents (Duff, 1982) is to provide sound academic instruction, low cost tuition, open access admissions, and responsive and innovative education programs to meet the needs of the community they serve. They are called upon to provide "educational and counseling services to reduce the social, psychological and financial barriers which discour-

age enrollment and program completion" (p. 19). To say that community colleges' principal focus is on liberal arts learning would be incorrect. The Regents are clear when they they mandate the mission of community colleges. All community colleges will do the following:

- . provide a primary emphasis on excellence in instruction
- . provide associate degree programs which prepare individuals for paraprofessional, technical, and service occupations
- . provide associate degree and special programs which prepare qualified individuals to transfer to baccalaureate degree and other programs
- . provide certificate programs in specialized career and vocational areas
- . have primary responsibility within the public system for basic skills assessment and developmental education programs
- . provide community service and continuing education programs, community development programs and services, special programs for business, industries and agencies, cultural activities and other programs, services and activities as are needed and appropriate for their service areas (Duff, 1982, p. 20).

The Regents have indicated that each community college will develop a mission statement which specifies its major strengths and programs and which reflects the educational needs of the local service areas. Each board of trustees of individual colleges is to ensure institutional quality consistent with the mission statements. Some factors which contribute to institutional quality are as follows:

- . faculty qualifications consistent with institutional mission
- . library resources and capacity appropriate

- to program needs
- . provisions of necessary equipment, physical facilities, and other educational resources
- . an overall intellectual climate designed to cultivate and utilize all of the above resources (Duff, 1982, p. 21).

When interviewed, Dr. Tossi Taylor (1987), Associate Chancellor of Academic Affairs, Massachusetts Board of Regents, indicated that the Associate in Arts degree advocates the civilizing of community college students, many of whom enroll not to become comprehensively educated but rather enroll to be trained for immediate employment by means of the Associate in Science degree or the certificate program. Dr. Taylor explained that the Associate in Applied Sciences degree trains students only for employment. He stressed the importance of training students to become good citizens and learners. Should community colleges not do so, students will not have the skills to interact socially in a pluralistic society. Dr. Taylor believed that if community colleges do not set the courses and curriculum for a comprehensive preparation for their students, then they should not expect their students to voluntarily opt to do so themselves. Unfortunately, students want only what they want to get out of their schooling and do not seem to want to become educated as complete individuals who will be functionally capable to succeed in the world. Taylor suggested that one may conclude that in a sense, an Associate in Applied Sciences degree could handcuff the student for upward mo-

bility since it does not allow the student to transfer but only to go to work directly from school.

Edward Lashman (1987), Chairperson of the Board of Regents, offered additional insight concerning the relationship between the Regents and the community colleges. He claimed it is one of oversight. The Regents help colleges and universities develop planning goals and criteria such that planning goals can be attained. He explained that the Regents are not an operating board in that they are not in the business of serving institutions of higher education. They were not established to be a resource. They coordinate the public higher education system well; are responsible for the development of the colleges' goals; establish budgets; and approve academic programs and degree offerings.

Lashman claimed that to believe that the three segments of public higher education in Massachusetts coordinate their efforts in terms of curriculum, student admissions, program development, and community service, is a total misconception. Any coordination occurs to the extent that it is the Regents' responsibility. Lashman emphatically clarified that it is not the responsibility if any of the twenty-nine schools to coordinate their activities with each other. In regard to the issue of a student admissions articulation agreement, Lashman stated that to his knowledge this agreement occurred before the 1980 reorganization of the Regents. Allegedly, colleges and universities were

to have agreed to increase their admission standards and counsel students who do not meet these standards to enroll at community colleges first. Chancellor Franklyn Jenfier (1987a) explained that the Regents do, however, impose a compliance audit on colleges and universities individually in order to determine if the admissions policy and other policies of the Regents are followed by the public institutions of higher education. Jenifer indicated that the Regents may exercise the budget process as a means of encouraging schools to be in compliance with the Regents' policies. Should there be any violation of the law, the Regents may bring sanctions through its legal counsel and order the culpable college or university to desist from its unlawful practice and/or it can censure the school.

In regard to the determination of goals for community colleges, Lashman responded that the Regents are part-time volunteers who serve on a non-operational board. He stated that the Regents are not policemen. All they do is set policy. Lashman maintained that the Regents' staff carries out the day to day operations. He also explained that the Regents can not be operational since they serve part-time and do not have the expertise to do so since they are primarily laymen and not educators. The Regents employ the Chancellor and his staff. Lashman affirmed that the Regents do not do the job of their staff for them. He said that the Regents could be best compared to the relationship of a school com-

mittee to its superintendent. In addition, Lashman declared that no one on the Regents' staff should operate Quinsigamond Community College (QCC), for example. Instead, they should provide for QCC the policies to guide it in the running of its campus, the information about how much money is available for QCC, and their reactions to QCC's budget. For example, in terms of the Affirmative Action Policy, the Regents do the following: write the guidelines; call on presidents on a regular basis to get updates on the policy's enforcement; and enforce the policy by means of collegial authority and pressure on such areas as the budget and program approval as well as bring to the public's attention any deficiencies they may find. Lashman explained that no one in education has line authority like an executive of a business. He described all colleges and universities as fragile, open places which give every idea access. He stated that education is not a corporation and can be easily disrupted. He claimed that these institutions can not be governed. The most effective process of governance is collegial and consensual.

When asked about impacting the goals of community colleges, Lashman indicated that the Regents do so by means of the planning process. They require that all twenty-nine colleges and universities develop Five Year Plans. The Regents are able to do so by statutory rights established in 1980 by Chapter 15A and by their own regulations. Lashman

indicated that the missions and goals of community colleges are reviewed by the Regents through the Five Year Plan and budgetary process. Whereas the actual curriculum of the programs offered is the direct responsibility of the individual institutions of public higher education, the approval of degree granting programs must come from the Regents. In short, how institutions do their business is their concern and not of the Regents, Lashman indicated.

Furthermore, according to Lashman (1987), the Regents have five committees to facilitate its activities. There are the Committees of Academic and Student Affairs; Administration and Finance; Long Range Planning; Personnel, Labor Relations, and Affirmative Action; and Computer and Management Systems. Lashman stipulated that no matters come to the entire Board of Regents unless they are first discussed by one of these committees. Should a new program proposal of a college be rejected, there is no appeal process. Access is provided to all institutions in regard to new program development by the initial processes of Stage 1 and Stage 2. Once the Regents take a vote on a new program and the vote is negative, there is no final reconsideration process in existence. However, there are opportunities for colleges to respond to the concerns of the Regents staff prior to the Regents' final vote. Theoretically, nothing gets to the Board until all sides of an issue are considered by behavior or by justification of the Regents to the

proposal.

Lashman responded to the question concerning the degree of political influence on the Regents' affairs by stating that the United States works by a political process. He stated that the charge of the Regents is influenced by each charge of the Governor. Should the public wish to change the composition of the Board of Regents all they have to do is write to the Legislature. Lashman professed that the members of the Board of Regents are public servants subject to the public's judgment. Lashman stated that professionalism guides the Regents' and the institutions' of higher education behavior. Moreover, he stressed that higher education is not a factory nor an assembly whose function is to mass produce graduating students year after year.

In as far as the curriculum of community colleges is concerned, Lashman explained that the composition of each program's curriculum is the responsibility of each college. The Regents do not have accreditation teams. They do not give nor withdraw accreditation. National associations independent of Massachusetts concern themselves with accreditation issues. In other words, a peer evaluation process takes place. If one of our colleges fails to earn accreditation, the Regents' Academic Affairs staff would want to know why and would intercede. The Regents, stated Lashman, then would want to know why the staff did not become in-

volved in seeing the remedial steps were implemented. Should the Regents not be satisfied with the response of their staff, Lashman explained that the staff member may be dismissed. If the Regents consistently would receive poor answers, they would hold the Chancellor and his/her staff accountable. Furthermore, Lashman clarified that the Regents do not operate their staff; what they do, however, is hire people to do that task for them.

Bunker Hill Community College

Bunker Hill Community College (BHCC) was established in 1973 along with its sister institution, Roxbury Community College (RCC). These two colleges are the most recent members of the Massachusetts community college system. According to President Harold Shively (1983b), despite the evidence of the need for educational and community services for the Greater Boston area, the establishment of these two colleges was "ignored ... until every other part of the State has been developed" (p. 4). Shively contended that although a general agreement existed that a crucial need for community college services in greater Boston represented a principal public policy priority, appropriation levels have not increased in kind, thereby forcing the institution to remain fixed in size (Shively, 1983c, p. 8).

President Shively (1986b) also explained that community colleges determine their own mission statements which set the philosophy of the respective college and state what

the college is supposed to be doing. BHCC's mission is to offer a broad base education for transfer; provide a technical education for the work force; establish continuing education for part-time and older students; and serve the local community in BHCC's service area (Shively, 1986b). This mission is accomplished by the the following priorities:

- . extending open admissions to late adolescents and adults residing in the greater Boston area
- . emphasizing assessment and individualized approaches to instruction and developmental education
- . extending educational outreach efforts to underserved populations
- . providing occupational education at the certificate and associate degree levels in fields that promise substantial employment and career potential
- . providing low cost, high quality educational programs in the arts, sciences, social sciences, and humanities for students seeking eventual transfer to upper division college and university level work
- . contributing through education to improve productivity in health care, social services, business, and industry (Shively, 1983a, p. 6).

However, although Shively (1980) stated that BHCC's mission is to offer a broad base education for transfer, an administrative decision was made by him during the first year of the College's operation in 1973 to limit the number of students in the liberal arts program. Shively supported this policy "because most colleges in [the Boston] area were already offering liberal arts programs, and a void existed in technical areas. Resources were directed toward filling the void" (p. 3). Furthermore, the community col-

lege system foresaw that a steady trend of increased student enrollment in occupational programs would continue and that community colleges would be "increasingly responsive to the training requirements of the high technology industries based in Massachusetts" (Shively, 1980, p. 7). In fact, BHCC, in meeting its mission, stresses the importance of providing certificate and degree programs that respond to emerging career education needs of the students. "Recently, strong efforts have been devoted to the development of various certificate programs that meet both student as well as employer needs" (Shively, 1985a, p. 7). Consequently, BHCC is second only to Springfield Technical Community College (STCC) in percentage of occupational and career students (Shively, 1983c).

A byproduct of the education/training services BHCC provides for residents of its service region has been the development of a strong business/industry relationship. Firms in ... Boston ... have requested the design of training programs and seminars to meet their specific needs. This association has been beneficial for it enables the College to develop a more comprehensive understanding of employment trends while providing a valid professional service.

During the past three years, BHCC has extended this relationship to include:

- . on-site analysis of workers' educational and training needs
- . the design and implementation of training programs
- . evaluation of workers as a function of the recruitment and selection process
- . serving as a site for seminars and workshops
- . providing student interns and well prepared technologists for immediate employ-

ment

- . encouraging dialogue between companies and residents of the region (Shively, 1985e, p. 59).

External and internal pressures impact the process of determining a community college's mission statements (Shively, 1986b). The community and its needs exert external pressure. For example, when the Revere Sugar Refinery and Schrafft's Candy Company of Charlestown closed, BHCC established a Worker Assistance Center in 1984 in order to meet the retraining and counseling needs of the workers of its service area. The Center serviced these workers collaboratively with the State Office of Economic Affairs, the State Division of Employment, the Boston Private Industry Council, the Secretary of Labor's Office, and the Union Local P-400, AFL-CIO. By 1985, "576 displaced workers [had] been served by the Center. Of this total 255 [had] been placed in stable jobs; the others [were] involved in training activities or [were] participating in a variety of job search skills workshops" (Shively, 1985a, p. 33). In addition, internal pressure is brought about by the activities of the faculty and staff of BHCC, the trustees, and the president. According to Shively (1986b), the Regents react to the mission statement instead of acting on it. The statement does not change without leadership from BHCC.

Furthermore, Shively (1986b) regarded the interview question [See Appendix A] about the value of the Associate

in Arts, Associate in Science, and Associate in Applied Sciences degrees to be a philosophical one. According to Shively, only two degrees are offered at BHCC: Associate in Arts and Associate in Science. Research, stated Shively, has shown that there is a need for community colleges to provide their students a broad base educational background. He claimed that community college students, who are more likely to change their jobs frequently, must be good in mathematics and sciences. Shively admitted that in the Massachusetts community college system, programs are highly technical, but he continued to support the establishment of broader based programs. The Associate in Applied Sciences degree carries fewer courses in general education and liberal arts. He explained that Massasoit and Quinsigamond Community Colleges, by means of the Associate in Applied Sciences degree, offer more job related courses. Students enrolled in Associate in Applied Sciences programs have a narrow background in general education. Shively (1986b) contended the Associate in Applied Sciences degree represents a vocational-occupational educational model. Furthermore, according to Dr. Kathleen Assar (1986), Dean of Academic Affairs at BHCC, community colleges in Massachusetts are fully accredited institutions of higher education which offer comprehensive education and professional training. They should not be defined solely as occupational-vocational education schools. she confirmed that BHCC offers the

Associate in Arts and Associate in Science degrees and acknowledged that some community college administrators are prompting the Associate in Applied Sciences degree which, in fact, is a technical degree that focuses entirely on technical programs.

In regard to goals, Shively (1986b) explained that BHCC's goals are set during each Five Year Plan. They are developed department by department and division by division, ultimately with the budget in mind. The primary question is where is BHCC going to place its money and emphasis each year. Once the trustees approve the goals, the goals become set. Next, under the supervision of the vice president's office, each division must submit goals within the goals of BHCC. The role of the vice president is to prevent duplication of goals and to report any problems to the president during the adjustment process. Shively indicated that up until the past years, the Regents had no impact on the goal setting of BHCC. Now, the Regents, by virtue of Chapter 15A, can impact community colleges in terms of Affirmative Action and budget. Moreover, BHCC's goals are not greatly impacted by other community colleges. He stated that public colleges and universities do not impact the goals of BHCC. He admitted, however, if they have any influence, it is in the area of transfer courses.

Holyoke Community College

President David Bartley (1987) explained that the

mission of Holyoke Community College (HCC) has never been in question. The College was founded in 1946 as Holyoke Junior College, a municipal junior college. Its mission was to prepare students in Liberal Arts and Sciences for transfer to four year colleges and universities. In 1964, Holyoke Junior College became a member of the public higher education system; changed its name to Holyoke Community College; and developed a comprehensive curricula. Located on a 135 acre campus near the junction of Routes 91 and the Massachusetts Turnpike, HCC is accessible to students who live and work in Western Massachusetts. According to Bartley (1987), students understand that they are receiving two years of a four year education. HCC offers quality education, capable instructional staff, and an atmosphere which is collegiate in nature. Furthermore, HCC maintains an open enrollment policy and has developed numerous career oriented programs so much so that more than fifty percent of its students are enrolled in a career oriented curriculum. The focus of HCC differs from BHCC in degree. "While [its] career programs are designed to develop the skills needed for immediate employment and upward mobility in a particular career field, they are not considered to be terminal programs. Many graduates of career oriented programs continue their education on a full-time or part-time basis" (Bartley, 1982, p. iii).

Bartley (1987) also indicated that community colleges

are much more than the degrees they offer. They are people's colleges which provide students with skills and improved critical thinking processes. He acknowledged that "economic and technological changes may affect the opportunities for graduates, the nature of the work available, and the composition of the business community" (Bartley, 1985b, p. 48). Since the high tech world is a constant one of new knowledge demands, HCC is committed to prepare students for the high tech marketplace. Moreover, HCC also responds to community needs by providing "programs such as those developed to retrain displaced workers, provide welfare recipients with employable skills, and serve high school seniors in danger of losing social security benefits" (Bartley, 1983a, p. 67). Bartley (1987) acknowledged that community colleges have difficulty in recruiting students from major community service areas because they have to compete with each other, with four year public colleges and universities, and with private colleges. Also, like Shively at BHCC, Bartley asserted that in order for HCC to fulfill its mission, it must have adequate funding with enough flexibility to meet changing needs. Bartley (1985b) proposed that HCC must do the following:

- . actively inform legislators and others involved in the budgeting process about the needs of the College
- . develop additional sources of revenue including the solicitation of gifts from alumni, corporations, and individuals
- . establish the capability to compete success-

fully for federal, state, and foundation grants (p. 93).

In regard to degree granting programs, Bartley (1987) did not distinguish between an Associate in Arts and Associate in Science degree. Personally, he did not think that such a distinction is important, although he affirmed that the difference may be considered significant by some employers in regard to meeting the demands of a specific job. Bartley contended that the Associate in Arts degree is a recognized degree, particularly in the health fields. Salary figures in health careers reflect the importance of the Associate in Arts degree. Also, companies hire Associate in Arts degree recipients for above entry level positions and consider these students to have some level of expertise. Yet, Bartley believed that HCC needs to do a better job in selling the Associate in Arts degree recipient to senior colleges and universities and to the business community. Furthermore, Bartley (1987) did not think that community colleges like Holyoke Community College promote the Associate in Science degree either. He asserted that business and industry seem to want well-rounded workers. To achieve such a trained work force, the corporations have opted to give students, whom they employ, specialized training right at their companies. In as much as the Associate in Applied Sciences degree is concerned, Bartley indicated that the geographical area near HCC does not have much demand for such a highly specialized training experience.

Even though Holyoke Community College does not have an immediate need for the Associate in Applied Sciences degree, Dr. Winston Lavalley (1987), Dean of Academic Affairs, Holyoke Community College, indicated that this degree represents competency based training. It is not completely vocationalism in nature. He believed that there is merit in moving toward the Associate in Applied Sciences degree since it represents training for immediate career employment without any transfer options or course requirements. For example, the Associate in Applied Sciences in Optometric Technology degree focuses solely on eye glass repair.

The single most important purpose of the Associate in Applied Sciences degree is to prepare students to enter directly into specific occupations. For the degree to achieve greater acceptance as an employment credential, effective articulation must be developed between the educational institution and the employer of Associate in Applied Sciences degree graduates. The most important facet of the linkage with employers is the maintenance of a timely and effective curriculum reflecting current professions in the work world. This relationship with employers, however, breaks with academic tradition, in that the Associate in Applied Sciences degree curricula are not initiated and developed solely within the educational institution. This partnership between the institutions and the potential employer needs to be nurtured continuously (Critiers for Excellence, 1985, p. 5).

Bartley (1987) also indicated that the role of the associate degree is important. He explained that more companies want students who have an education beyond high school. The Associate in Arts degree affords students marketable skills to go beyond entry level positions and allows students to

transfer with full credit to a four year college. Lavallee (1987) felt that the question about the role of community colleges' degree offerings within the entire scope of Massachusetts' higher education system is a valid one. He stated that HCC has made a great effort to have four year public colleges accept its students as first semester juniors, even though the 1984 Transfer Compact guarantees this status to be actually afforded our students. In reality, Lavallee indicated that some of HCC's students may only be admitted as second semester sophomores. Some public colleges and universities accept the Associate in Science degree. Private institutions of higher education seem to accept the Associate in Science degree more easily, Lavallee contended. He suggested that there is a great deal of difficulty in Massachusetts, especially at the public four year colleges and universities in regard to the acceptance of the Associate in Applied Sciences degree as a transfer degree.

Furthermore, Bartley (1987) stated that whereas the mission of HCC is set by the Trustees, the goals are the result of the interaction of faculty--discipline and discipline--with administrators. He confirmed that the Regents impact HCC's goals slightly. In regard to other community colleges impacting HCC's goals, Bartley commented that community colleges which are close geographically coordinate their activities to make sure they reflect their respective communities' directions and needs. The Community College

Presidents' Council represents an opportunity for the presidents to define and redefine what other sister community colleges are doing. Bartley submitted that the Council affords the presidents a flow of ideas which enable them to discuss and plan how to better serve their areas. Furthermore, he indicated that state colleges and universities influence HCC and its curriculum whenever they change their requirements in terms of admissions, course work, or program focus. He stressed that HCC is in constant communication with these institutions in order to provide a pathway for its students for transfer. Moreover, Bartley explained that the Council of Public Presidents and Chancellors affords the community college presidents a mutual exchange of what they are doing in terms of budget, needs, programs, etc. with other public higher education segments. This Council represents a free flow of information.

Massachusetts Bay Community College

On the other hand, President Roger Van Winkle (1987) of Massachusetts Bay Community College stated that the mission of community colleges in Massachusetts has not been stable for a period of time. The ranking of higher education in New England may be described as having Harvard University ranked at the top and public community colleges ranked at the bottom. Only recently, within the past eight years, Van Winkle contended, have educators witnessed a major thrust in the Commonwealth for public higher education in general and for

community colleges specifically. Furthermore, Van Winkle indicated that public higher education has never been as important as the private higher education sector. He stated that instead, it has been considered as an after thought in Massachusetts. Van Winkle affirmed that the awareness of the citizens of the Commonwealth of the importance of public higher education is at least twenty years behind their contemporaries in the western part of the United States. Van Winkle believed that Massachusetts Bay Community College (MBCC) is focusing on the technical and career professions primarily.

Massachusetts Bay Community College was chartered by the Commonwealth in February 1961. It has had an eventful history including three geographic locations: Back Bay, Boston (1961); Watertown (1965); and Wellesley (1970) (Van Winkle, 1983a). "In 1970, ... the Legislature allocated funds for property in Wellesley, then removed the allocation, and only after an extensive lobbying campaign, returned the funds at the eleventh hour. The College secured a permanent location, and on November 26, 1973, the Wellesley campus opened on the site of the former Elizabeth Seton High School" (Van Winkle, 1983a, p. 4).

For the first twenty-five years, MBCC functioned as a public junior college by focusing its efforts on the education of students in Liberal Arts and Sciences for the purpose of securing their transition to a four year baccalau-

reate institution. Van Winkle (1987) explained that in 1982, the Regents directed MBCC to change its focus. The rationale for the switch from a liberal arts transfer concentration to high technology, business, and health sciences was based on MBCC's geographic location and proximity to Massachusetts' "technology highway"--Route 128. According to Van Winkle (1987), since the Regents mandated MBCC to meet their responsibilities to the citizens, businesses, industries, and government bodies in their service areas, they reasoned that corporations and businesses are also defined citizens of the Commonwealth and should have their needs addressed--the preparation and training of future employees by means of public community colleges for immediate and employment. Van Winkle (1987) pointed out that the Regents notified MBCC that it had three years to make the transition from a liberal arts focus to occupational-technical career programs. He estimated that in 1980, 70% of the student body were enrolled in the Associate in Arts transfer program. In 1986, 60% had completed technical or health science programs of the Associate in Science degree programs.

Van Winkle (1983a) described MBCC's mission as a cooperative effort with the surrounding high technology industry. MBCC is committed to do the following:

- . provide entrance level education for those persons without previous working experiences, choosing to enter fields of high technology

- . provide accelerated training to the persons with work experience involved in career recycling
- . provide specialized training on campus or at plant facilities for high technology company employees as determined by the individual company needs
- . interact with high technology businesses in the areas of equipment, facilities use, and personnel exchange (p. 8).

Yet, Van Winkle did not abrogate MBCC's responsibility to its students.

While considering the immediate needs of the industrial community, MBCC must also weigh the longer term needs of those [it educates]. For both social and economic considerations, continuing one's education is imperative. Many, who complete an associate degree in a career preparation program, choose to go to a senior college immediately or do so while working [and] taking advantages of tuition reimbursement and release time programs offered by their respective companies (Van Winkle, 1983a, p. 8).

To fulfill its mission as a comprehensive open door public community college, Van Winkle (1984c) stated that MBCC provides opportunities for educational excellence; supports life long learning; services economically and educationally disadvantaged citizens; and creates opportunities for students to develop their abilities to speak and write well, count effectively, and solve problems. He (1983a) explained that since MBCC has a diverse primary service area of more than twenty-five communities, it does not reap the benefits of any one group of constituents identifying with it. In turn, "this apparent lack of a strong single community and legislative base has impacted adversely on the college" (p. 7), especially in terms of the budget process.

In regard to degrees, Van Winkle (1987) stated that the value of the Associate in Arts degree is that it is primarily designed as a transfer program. It offers a broad, general education and represents a core of liberal arts general requirements for the baccalaureate degree. Theoretically, the purpose of this degree program is to train generalists. The value of the Associate in Science degree is similar to that of the Associate in Arts degree. In addition, it connotes specific major interests. Students who enroll in the Associate in Science degree program to pursue a transfer program in a specific area in order to proceed to a Bachelor of Science degree. Also, for some students, it is a terminal degree that prepares students for a wide range of immediate employment opportunities. Its emphasis is on science and math. Furthermore, it has a more specific employment focus. Van Winkle (1987) said that there are gray lines now in regard to transfer since the University of Lowell accepts Associate in Applied Sciences technologies. Previously, the distinctions between the three degrees--Associate in Arts, Associate in Science, and Associate in Applied Sciences and especially between Associate in Science and Associate in Applied Sciences--were clearer.

Dr. Gerald Bazer (1987), Dean of Academic Affairs of Massachusetts Bay Community College, believed that the liberal arts discipline demands are inherently useful and rewarding..He described the Associate in Arts degree as one

which provides students with a well-rounded education in traditional liberal arts as well as preparation for transfer. On the other hand, Bazer considered the Associate in Science degree to offer less of a comprehensive education in comparison to the Associate in Arts degree. The Associate in Science degree concentrates on the preparation of students in a particular career field and in some instances for transfer. Bazer described the Associate in Applied Sciences degree as preparation for more immediate employment in a technical career. It offers less opportunity for a general education. Furthermore, there is less opportunity for those students to transfer. The Associate in Applied Sciences degree focuses on the acquisition of specific technical skills.

Moreover, Van Winkle (1987) explained that the role of the Associate in Arts degree at both public and private two year colleges is designed to guarantee students after two years of study, a broad, general academic preparation to facilitate with little difficulty their entry at the junior level of a baccalaureate degree awarding institution. Van Winkle also confirmed that MBCC has problems in regard to transferring its students to public colleges and universities in Massachusetts. He claimed that the independent higher education sector is far more flexible in terms of accepting MBCC students for transfer. The competition for students between the public and private sectors has increased. The

limited student body pool, according to Van Winkle, for both sectors to choose from makes MBCC students more competitive.

In addition, Van Winkle (1987) stated that there still exists a question in regard to admissions standards. In 1982 or 1983, he explained that the Regents released a master plan that indicated which segment would serve which students. Van Winkle asserted that the concept was that university students would draw upon resources of the university setting since a better student would share in a competitive environment. The next category would be the good, solid 2.5 high school student. Van Winkle confirmed that by means of admissions of admissions testing, these students would demonstrate good test scores which suggest college level capability, although they may have performed less well in high school. Van Winkle (1987) submitted that family responsibilities and geographic delimitations would influence these students to consider state colleges. Primarily, he explained educationally disadvantaged students would attend community colleges. Other factors which would influence these students would be economic and geographic reasons; family responsibilities such as single parenthood; convenience in terms of location; scheduling; and low costs.

However, Van Winkle (1987) maintained that there is a problem in regard to the admissions standards. Demographics show a significant decline in enrollment. If this master plan were put into effect and observed by all three segments, which does not occur, Van Winkle asserted, the pub-

lic universities would not have any major difficulties. The reason that this plan would not adversely effect universities, according to Van Winkle, is that the tuition costs of private sector colleges and universities are rising so much that students look upon universities in the public sector more favorably. Yet, Van Winkle contended that the public colleges would be impacted more by an adherence to such an admissions master plan. State colleges seem to be more candid about their need to keep any students who apply. The advantages in cost appear not to be sufficient to outweigh the lure of the private sector colleges.

Furthermore, Van Winkle indicated that state colleges' Liberal Arts and Sciences do not have a clear focus of mission in regard to the business sciences. They try to convince high school students of the potential benefit of entering a four year college directly from high school instead of first going to MBCC, for example, in order to complete their freshman and sophomore years. Van Winkle also explained that MBCC which now serves students, who are without high school diplomas; have low high school records; or have General Equivalency diplomas, would not be adversely impacted by the admissions standards.

In fact, Van Winkle pointed out that MBCC could even increase its enrollment if the other two segments actively advised incoming freshmen that their poor records and inadequate skill levels in reading, English, and math sug-

gested that they would do better by enrolling in MBCC first. However, according to Van Winkle, this situation is not the case. State colleges and universities enroll poorly prepared students; should these students barely pass the first semester, they would be allowed to enroll the second semester, sometimes being placed on academic probation; and by the third semester, they would fail and/or drop out, probably never to return to higher education in the near future.

Van Winkle (1987) stated that the Associate in Arts degree is more strenuous and demanding than the Associate in Science degree, which is clearly more focused on business, sciences, etc. as the students' major fields of study. The Associate in Science degree assumes that students need certain types of specialization as freshmen and sophomores for their junior and senior years. In regard to the Associate in Applied Sciences degree, Van Winkle indicated that in 1986, the Regents notified MBCC and other community colleges that they had the authority to bestow the Associate in Applied sciences degree. Currently, he believed that Quinsigamond, Mass Bay, and Massasoit Community Colleges offer or support the issuance of the Associate in Applied Sciences degree. Van Winkle added that New Englanders in general and Bay Staters in particular are educational snobs in regard to the Associate in Applied Sciences degree. They seem to consider it is a terminal degree which is designed for immediate employment at low entry levels with no aca-

demic transfer option whatsoever.

Van Winkle (1987) also stated that the Regents need to determine what is a transfer program and what is not. He believed that it is the responsibility of the Regents to discern the difference. Currently, a problem has arisen in regard to what is considered a transfer articulation agreement. He also indicated that the Regents appear to consider the Associate in Applied Sciences degree as terminal and the Associate in Arts and Associate in Science degrees as transferable. The Regents seem not to be able to distinguish the three roles of an Associate in Science degree-- transfer option; terminal degree option; or preparation for immediate employment option. Bazer (1987) believed that the Associate in Science degree, which is considered transferable in some circles, is disadvantaged by the number of credits which do not meet necessarily all the requirements of the Transfer Compact. Students enrolled in Associate in Science degree programs may end up being a second semester sophomore at the receiving baccalaureate institutions. He also admitted that the Associate in Applied Sciences degree is not widely considered in Massachusetts because the academic community has a lack of awareness of its value. Moreover, Bazer confirmed that the Associate in Arts degree, a transfer degree, is more likely to have the courses which will apply directly to the Transfer Compact and afford a student a junior status at the receiving senior institution.

In regard to goals, Van Winkle (1987) stated that MBCC's goals are part of the long range planning process which include the mission statement. Van Winkle indicated that the Regents tell community colleges what their mission is. They approve or disapprove our goals. Community colleges reprioritize their goals in response to the Regents' recommendations. The Regents, according to Van Winkle, are known to then reprioritize MBCC's goals again. MBCC then must look at the Regents' recommendations and make the suggested adjustments, and then the regents approve the MBCC's goals. Before sending the original goals to the Regents, MBCC's trustees first review them and give MBCC their approval to forward them to the Regents. In regard to other community colleges impacting MBCC, Van Winkle stated that they do so in the areas of program offerings and competition for the students from the service delivery areas. He also pointed out that the Community College Presidents' Council modestly impacts MBCC. The presidents behave in a cooperative fashion and discuss broad range policy. The Council reviews Regents' policies and make recommendations to them. It is a deliberate body of peers which votes by consensus. Furthermore, Van Winkle explained that state colleges and universities impact community colleges in a variety of ways, especially in terms of transfer articulation of programs and negotiations. The Transfer Compact states that all students enter as juniors at receiving public senior institutions.

Successful transfer of MBCC's students to a receiving college, described Van Winkle (1987), depends more on departmental interpretations of the transfer compact. It relies on the strengths and weaknesses of a specific program rather than on negotiations between the two schools. Van Winkle pointed out that the Biology Department of Southeastern Massachusetts University, for example, looks at the students' records and the colleges in which the students are currently enrolled. The acceptance of MBCC's students as transfer Biology majors to Southeastern Massachusetts University depends on the receptivity of the University's Biology Department's faculty in regard to MBCC's faculty degrees and publications of MBCC's Biology Department. Van Winkle commented that the public's reaction is that the Transfer Compact promotes a great communality of view between all segments. However, in application, such accord is not real, Van Winkle asserted. What matters, he contended, is the receiving institution's departments which review the admission applications of the transfer students who have indicated a desire to graduate with a baccalaureate degree in a specific discipline.

Middlesex Community College

Dr. James Houliahn, Jr. (1987), President of Middlesex Community College (MCC), indicated that principally the mission of Middlesex Community College is to provide access to public higher education. He stated that MCC helps and

encourages its students to fulfill their potential. Houlihan contended that MCC and other community colleges have become human service and health education centers of the public higher education system in Massachusetts. Houlihan also said that he believed that the perception of other segments of the public higher education system is that community colleges do not offer the same quality or level of humanities and liberal arts. Houlihan asserted that this perception is far from the truth.

Middlesex Community College indeed does provide the freshman and sophomore years of a four year baccalaureate degree, Houlihan (1987) maintained, while the other foci are the direct results of the Regents' direction. According to Houlihan, presidents of community colleges carry out this Regents' initiated mission by means of political and practical processes germane to their respective campuses. For example, MCC has been made aware that an aspect of its mission is to serve the community as a resource as well as to enrich it, Houlihan pointed out. In addition, he confirmed that MCC assists local businesses in terms of curricular program design for MCC's students, in-service training for their employees, and even retraining or upgrading opportunities for their employees. Furthermore, MCC expresses, according to Houliahn (1983b), a "growing commitment to high technology in response to its location in the center of the high technology industry around Routes 128 and 495" (p. 2).

Middlesex Community College was established in 1970. It did so with a mandate from the Massachusetts Board of Regional Community Colleges "to establish a cluster of health-related educational training programs. Over the next decade, [the College developed] curricula for programs in fields such as nursing, dental science, medical and dental assisting, radiologic technology, medical sonography, medical laboratory technology and emergency medical services" (Houlihan, 1985b, p. 5). Houlihan (1984a) affirmed that according to the Regents' priorities, health career programs remain a critical part of the public higher education system's long range plan. Although technical-occupational training appears to be the focus of the Regents, the housing and facilities of such training programs do not seem to be a key priority, Houlihan (1985c) explained.

In regard to degree offerings, Houlihan (1987) strongly supported the offering of the Associate in Arts degree. Historically, MCC offered the Associate in Arts degree. Also, MCC has a general education liberal arts component of a minimum of 21 credits which all occupation programs reflect. The Associate in Arts degree offers to students, who have a limited academic background, exposure and experience in the humanities and liberal arts, providing them the opportunity to consider new concepts. Houlihan asserted that one should not talk about MCC without including the liberal arts. He believed that MCC's emphasis is on liberal arts and should

continue to be on liberal arts. Houlihan also advised that MCC should not focus only on occupational-technical programs. In fact, according to Houlihan, the liberal arts transfer program historically has been the primary goal of MCC. In addition, he believed that more and more students will need Associate in Arts preparation. He stated that technical trends seem to demonstrate a need for more liberal arts preparation on the part of the workers as well as graduating students.

Dean of Academic Affairs, Dr. Carl Schilling, added that the value of all three degrees--Associate in Arts, Associate in Science, and Associate in Applied Sciences--can be measured by an individual who receives it and to the extent that the degrees respond to the need to verify the achievement of the individual from his/her academic beginning at MCC to his/her graduation. According to Schilling (1987), the role of the Associate in Arts degree is to serve as a conventional route for liberal arts transfer. He believed that the Associate in Science degree should also be designed for transfer, although he was not sure how many other community colleges in Massachusetts accept the Associate in Science degree as a transfer degree. Schilling indicated there is a difference between the degree nomenclature and the content of the program. He pointed out that, in other words, the name of a degree is attached to generally accepted nomenclature for field study and not for

the intent or purposes for which the study is undertaken. The issue of transfer and non-transfer is related to curriculum, Schilling asserted. He indicated that it is designed to allow students movement to a four year college as well as a continuation of study in a definite field. Schilling stated that non-transfer is reasonably complete in itself. Some MCC students leave college to go out to join the labor force. Furthermore, Schilling stated that the Associate in Applied Sciences degree provides another opportunity for students to fulfill their goals.

Finally, in terms of goals, Houlihan (1987) defined them as the ways to implement the mission of MCC. He indicated that MCC's administrators work with the Regents regarding its goals. In terms of other community colleges, Houlihan described their impact as one of sharing information and discussing general policies. State colleges and universities impact MCC in terms of the Transfer Compact. Schilling (1987) personally felt that these two other public higher education segments impact MCC in regard to the transfer and admission processes. He also added that he felt the state colleges should not offer MCC's programs or those offered by other community colleges. Moreover, he confirmed that the Regents clearly impact MCC in terms of the budget process. Furthermore, the Regents directly influence MCC in regard to transfer opportunities and academic concerns.

North Shore Community College

Not every community college president regarded the mission of his/her college as a directive solely of the Regents. President George Traicoff (1987) of North Shore Community College (NSCC) defined the mission statement as a living document which needs to be reviewed constantly since the population which a community college serves is always changing. Traicoff asserted that NSCC and other community colleges represent access with flexibility and excellence. North Shore Community College, established in 1965, strives to meet the needs of community residents as well as those of the business and industrial sector. It "must continue to work closely with North Shore industries and government to jointly determine the most viable means of maintaining the economic growth and prosperity in the region. [It] must continue its commitment to technical education" (Traicoff, 1983a, p. 17), although its mission is to provide students academic instruction for transfer to a four year institution as well as career preparation for entry into a variety of occupational fields.

Traicoff (1987) affirmed that NSCC is accountable to this mission. He stated that NSCC has always been concerned with all students--those who graduate as well as those who take only one course. He explained that it stresses the end results--what the students have become at the end of the program--rather than dwell on who the students are when

they enter. Traicoff indicated that he is especially interested in the issue of the illiteracy levels of the inmates incarcerated in local prisons. He felt that prisoners have very limited options if they are illiterate. Consequently, part of NSCC's mission is to provide educational opportunities to this population. However, not all residents believe NSCC is accountable. Traicoff (1984a) commented that a survey was conducted by NSCC and that it demonstrated that significant percentages of North Shore residents have unfavorable perceptions of the quality of education at the College.

In addition, some students themselves question NSCC's mission. Former student Cynthia Hoey indicated that she would not be dependent on welfare if she had been able to finish her executive secretarial program two years ago (Lai, 1987). Since Ms. Hoey was unable to locate a licensed child care center for her three year old son, she had to withdraw during the first semester at NSCC, thereby being prevented from acquiring skills which would enable her to end her dependence on the state welfare system and empower her to end her poverty.

Traicoff (1987) acknowledged that NSCC faces many challenges in fulfilling its mission. He explained he had nothing against occupational-technical training so long as NSCC tells its students that's what it is giving them instead of leading its students to believe that they are re-

ceiving a college education in a traditional sense. Traicoff contended that a degree is meant to offer a certain level of skill development for the future preparation of the student. He personally felt that if a degree, which he described as an accumulation of data, philosophy, and experiences, does not contribute to a student's growth and development, then it is not successful nor is the student who is awarded such a degree.

Traicoff also indicated that the value of an Associate in Arts degree is that fundamentally it is a transfer program. In regard to the Associate in Science degree, he considered its value is that it helps a student become employable. The Associate in Science degree also serves as a foundation for the building of an education in the future whenever a person may need it. In some places, the Associate in Sciences degree is based in the sciences only. Traicoff explained that Quinsigamond Community College is moving toward the Associate in Applied Sciences degree to take the role of the Associate in Science degree while the Associate in Science degree would become a transfer degree. In fact, according to Traicoff, Dr. Clifford Peterson, the President of Quinsigamond Community College, serves on a committee of the American Association of Junior and Community Colleges which is exploring the role of the Associate in Applied Sciences at the community college level. Traicoff asserted that the Associate in Applied Sciences degree is a designa-

tion for a significant number of courses to be taken in a career field. Not being a transfer program, the Associate in Applied Sciences degree represents more of a training program which offers more than a certificate program. Furthermore, Traicoff affirmed that there is not much difference between all three degrees--Associate in Arts, Associate in Sciences, and Associate in Applied Sciences. They all should be a basis for further education for students.

Traicoff (1987) also explained that the Associate in Arts degree serves as an entry into a program of study for earning a bachelor's degree. In contrast, he claimed that the Associate in Science degree helps students focus on immediate, short term, and intermediate ranged goals. It helps students develop skills and knowledge, making them more valuable in an economic sense. Also, the Associate in Science degree provides students a way to advance in the future in terms of their status and earning power. Traicoff asserted that he believed students' self-esteem will rise with the Associate in Science degree. He also stated that the Associate in Science degree represents a continuity of high school programs. It is an entry point to a college education for NSCC students. At times, Traicoff stated that the Associate in Science degree seems to raise student aspirations to transfer to a baccalaureate institution. He made reference to Dale Parnell's work, The Neglected Majority, in which Parnell mentioned that the Associate in Science de-

gree is a natural entry for high school students to college as well as an opportunity for students to receive a general curriculum of studies. Traicoff did admit, however, the business career in which students enroll as an Associate in Science degree program faces problems. These students do not have enough liberal arts credits to qualify as a junior in a four year college. He indicated that during the fifth semester, NSCC students are not ready to hear they can not transfer as a junior. The students have to do either one of the following: (1) stay at NSCC and get more liberal arts credits or even an Associate in Arts degree or (2) go to the baccalaureate receiving senior institution and enter as second semester sophomores.

In fact, goals change more than mission statements asserted Traicoff (1987). He explained that all segments of NSCC participate in goal setting. Departments set objectives for themselves and the division establish their goals. Sometimes, goals may become mixed with objectives. Traicoff described the duration of objectives to be from six months to one year. In contrast, goals are establish for five years; are drafted sometimes to project a desired end two to three years in the future; or are set for an indefinite amount of time. Traicoff asserted also that the Regents impact NSCC a great deal especially through the budget and funding processes. Community colleges, on the other hand, impact each other in that in seeking to do the same job, they all learn

from each other, Traicoff pointed out. For example, in 1976, he said that some community colleges became committed to the use of computers in the classroom and the use of computers in general. In time, other community colleges observing this success also addressed the computer issue as a curricular resource.

As far as the Community College Presidents' Council is concerned, Traicoff described the Council as a means of the presidents to share issues and discuss directions of the community college system. The Council is a barometer for the system which measures the nuts and bolts concerns of community colleges. In regard to the Council of Public Presidents and Chancellors, Traicoff indicated that this Council impacts community colleges in the area of transfer articulation. He acknowledged that there are alleged problems community college students are facing when they attempt to participate in the Transfer Compact. Although the Compact stipulates that state colleges and universities will accept sixty credits of work done at community colleges, some public institutions allegedly do not do so. Traicoff indicated that nothing happens to these institutions if they choose not to follow the Compact. Traicoff, however, did point out that as Chairperson of a committee appointed by the Council of Public Presidents and Chancellors to address the transfer articulation, he had not received any evidence about transfer problems. He explained that what does occur at some

community college students who may not take courses in concert with the Compact requirements and then try to transfer these courses to receiving public baccalaureate institutions in lieu of the Transfer Compact requirements. Consequently, they encounter problems of their own making.

Traicoff confirmed that state colleges and universities impact community colleges to a very large extent. He described the University of Massachusetts as the flagship of all public higher education in Massachusetts. Traicoff stated that the University very well establishes a tenor and an image of higher education for taxpayers. Moreover, he pointed out that the view of the total spectrum and role of each segment impacts all three segments. Traicoff indicated that as institutions of higher learning become more college and university-like and less like State Teacher Normal Colleges, community colleges will be seen more as a friend of the other two segments instead of as a competitor. Also, Traicoff recommended that university presidents should put more of their money in their transfer programs which recruit students from community and junior colleges and then concentrate their institutions' growth at their junior and senior levels. Traicoff claimed that the challenge which could be met within the next ten to fifteen years is to let the freshman and sophomore levels be the concentration of community colleges. Right now, none of these recommendations are happening. Traicoff also believed that there is no aggres-

sive search for the better students who are matriculating at community colleges.

Quinsigamond Community College

President Clifford Peterson (1987b) of Quinsigamond Community College (QCC) supported President Traicoff's position that the community colleges' mission is one of financial and geographic accessibility. Peterson cited instruction as directly responsive to be a particular region of the Commonwealth. He believed that the terms urban, rural, and suburban, when applied to community colleges in Massachusetts does not make sense. What does make sense, Peterson contended, is the availability of jobs in the geographic area in which the community college offers programs and curriculum to respond to the employment situation. He also insisted that the regional aspect of defining community colleges is confusing since there is no basic difference in the people served by community colleges. Peterson explained that people do not live and work in the same area of the State. They travel and cross service areas of community colleges. As an example, Peterson (1987b) gave General Motors Corporation. Although General Motors is in the service area of Massachusetts Bay Community College, 6% of its employees live in the Worcester area. Peterson suggested that the terms urban, rural, and suburban should be used in regard to the demographics of the students.

Peterson (1987b) described QCC as one of the more com-

prehensive community colleges in the State. The College has tried to maintain a balance between transfer and occupational-technical students. When Peterson used the term occupational, he meant a technical level above and beyond vocational preparation. The term, vocational, is used to identify secondary level programs found at the high school level for eleventh and twelfth grades. Peterson asserted that the phrase occupational and technical represents better what QCC offers its students. He recommended that there should be a career path to the occupational level from the vocational level. To address the issue of such a path, QCC has developed 2+2 Programs [See Chapter 1] with local high schools.

The Legislature in 1963 approved the establishment of QCC in response to a request of the Worcester area Chamber of Commerce, and it became the sixth college in the total community college system. Like MBCC and RCC, QCC had various campus sites before finally finding its permanent home campus. "From temporary quarters at the College of the Holy Cross, Quinsigamond enrolled its first class in the Fall of 1968. After reaching an agreement with the City of Worcester, the College moved to city owned facilities. In 1970, the Commonwealth of Massachusetts purchased property of the former Assumption Preparatory School--the new permanent campus of Quinsigamond" (Peterson, 1982, p. 1). Although located in the City of Worcester, the QCC provides services to urban and suburban populations throughout Central Massa-

chusetts.

Quinsigamond Community College, according to Peterson (1987b), is committed to being a major provider of life long learning opportunities for citizens in its service delivery area. It recognizes the necessity to be part of the economic growth and development of the region by "working cooperatively with business and industry to provide desired education and training which will be necessary to meet the expanded work force needs of the area" (George Smith, 1987, p. 6). These cooperative efforts have evolved into linkages to the business and service segments of its service area community. Consequences of these linkages equate to jobs for QCC students; a closer relationship between the work force and various college curricula; and economic development.

Peterson (1987b) also explained that the value of the Associate in Arts degree is that it provides students transferability to a Bachelor in Arts degree program as well as a broad liberal education. He commented on the need for a comprehensive liberal education throughout the curriculum of all community college programs. Peterson indicated that the value of an Associate in Science degree is that it should represent the first and second years of a Bachelor of Science curriculum. He stated that the Associate in Science degree is becoming increasingly important in Massachusetts in regard to engineering and high technology. However, Peterson maintained that the Associate in Science degree has been

used primarily for occupational educational programs for immediate employment. Peterson contended that the Associate in Science degree used as if it were an Associate in Applied Sciences degree. He believed that QCC and other community colleges need three distinct degree curricula and a general education core. He defined general education as that portion of a degree's curriculum not directly related to the degree's concentration itself. In Massachusetts, Peterson indicated there is a problem in regard to general education since it is a matter of definition. Furthermore, he explained that liberal arts and general education are used interchangeably as well as liberal arts and liberal arts transfer program used interchangeably. As far as the value of the Associate in Science degree, Peterson indicated that its focus is specially on one objective--immediate employment for the student. The issue of transferability is secondary and a matter of student aspirations.

Lastly, Peterson (1987b) described the goal setting of QCC as a process of management by objectives which has each administrator determining a list of goal statements. From their work flows the institutional goals which represent the starting point for QCC's Five Year Plan. This May 1987 equals a two year transition process for QCC. Peterson stated that the Regents impact QCC's goals as little as possible. However, he pointed out that the Regents seriously impact QCC's budgetary processes and determine some priorities in

regard to programs and monies for such specific programs as Affirmative Action. Peterson admitted that community colleges do not have complete autonomy. According to him, what the community colleges do not have is organized leadership. Chapter 15A clearly defines the role of the Regents [See Chapter 3]. Community college presidents' task, according to Peterson, is to see that Chapter 15A is followed. Peterson asserted that the presidents seriously felt pressed to impact Chapter 15A and the Regents, they would have to resort to the political process.

Peterson also indicated that community colleges impact each other to the extent that they constitute a distinct system within the entire public higher education system. He explained that the biggest unifying factor of all these colleges is the collective bargaining agreement. Also, he submitted that the public's positive and negative perceptions of what the community colleges do actually impact the rest of the public higher education system. Moreover, according to Peterson, the Community College Presidents' Council enables the presidents to coordinate some of the activities they are doing. The Council is the primary means of communication between all fifteen community colleges which enables the presidents to support each other and promote a system wide uniformity. Peterson also believed that state colleges and universities should work to complement and not compete with community colleges. He admitted that all segments face

the issue of avoiding duplication of services and programs as well as experiencing the same funding and budgetary processes as stipulated by the Regents. Furthermore, Peterson stated that the admissions standards and Transfer Compact are Regents' policies. If neither policy is being carried out fairly and/or well, Peterson recommended that the Regents resolve the problem and not the presidents or chancellors.

Roxbury Community College

Roxbury Community College (RCC) is the only one in Massachusetts considered to be an example of the 56 community colleges in the United States serving a predominantly Black population (DeVaugh, 1982, p. 11). It has existed as a predominantly Black and Hispanic institution since it was founded in 1973 and has served as an example of bilingual education at the post secondary level. "During that period, it has had to continuously combat negative external factors consistent with the local racist and discriminatory politics of Boston concerning service of low income people of color" (p. 10). President Brunetta Wolfman (1983b) explained that RCC's programmatic potential has been hampered by a lack of facilities and equipment. She indicated that RCC has had a ten year struggle to get a permanent facility, whereas BHCC was conceived at the same time as RCC and BHCC was completed within two years (Hart, 1987c). In the Summer of 1982, RCC relocated to the former Boston State College campus.

The move followed years of negotiations over possible mergers and state administrative pronouncements concerning the construction of a new campus. Negotiations over past, current, and future housing of the college has directed the energies and attention of the administration from other problems important to the operation of the College. [An assumption has been made by RCC's officials that] the current support from the Governor and the Regents will enable the plans for the new [permanent] facility to be completed and that this Southwest Corridor campus for 1500 FTE students will be constructed by the Fall of 1986 (Wolfman, 1983b, p. 22).

Currently, a second early November 1987 opening of this permanent facility has been changed to mid-December. However, the new campus may not be prepared for occupancy before February 1988 (Hart, 1987c). "Administrators said if construction is not finished by December, there may be no time to equip and furnish the new buildings before students begin their second semester" (p. 7). Roxbury Community College is the only community college in Massachusetts which does not have a permanent facility nor campus. Since its mission is to provide services to people of color and other groups who have not traditionally been afforded equal access to higher education, these constant delays in the establishment of RCC's permanent campus is a "clear bias against people in the inner city [of Boston], be they Black, Hispanic, or Asian ... [an act of] racism" contended President Wolfman (Hart, 1987c, p. 7).

Former President Kenneth Haskins (1980) explained that Boston has always lacked community college services. He felt

that since the University of Massachusetts, Boston would focus on admitting students who have had a traditional preparation for academic work, RCC would become the institution committed to introducing its students to "ideas, influences, and ways of life that broaden their view of the world. It may be that students and teachers intent on changing society could raise the consciousness of community college students about where they fit in the social system and why they fit where they do. All this is possible, important, and underway in many community colleges" (Karabel, 1978, p. 558).

Wolfman (1987) believed that community colleges have four basic missions. First and foremost, they serve as a component within the higher education framework. They offer high quality traditional curriculum at a low cost. Second, community colleges respond to community needs in terms of services and occupational-technical programs. Third, they represent an alternative educational experience for adults who plan to return to school. Fourth, community colleges' greatest value is their ability to be inventive and creative in regard to interests expressed by community groups. In specific, Wolfman (Thompson, 1985) stated that RCC's mission is to do the following:

- . construct a permanent new campus along the Southwest Corridor in Roxbury
- . develop academic programs and strategies for teaching and learning to help RCC students enter the high technology and service sections of the economy
- . develop our programs and resources through col-

laborative links with industry and other institutions (p. 1).

Roxbury Community College has committed itself to enlarge the number of technical career programs it offers (Wolfman, 1984). Haskins (1980) stated that labor intensive industries in the fields of health and high technologies will provide opportunities for RCC to establish relationships with businesses and agencies. Such collaborative efforts hopefully would result in employment opportunities for RCC students and increase public recognition of what RCC has to offer.

In as much as Wolfman (1987) is concerned, the Associate in Science degree is interchangeable with an Associate in Arts degree. Formerly, the Associate in Science degree was considered a terminal degree. Wolfman pointed out that the Associate in Arts degree should be the first two years of a liberal arts major and should prepare students for their junior year of a four year institution. Wolfman explained that students try to achieve an educational level by taking a variety of introductory courses. However, she believed that this is not the case for many students who are enrolled in liberal arts. She stated that they take a smattering of courses and not a solid foundation of core courses with a declared major. Furthermore, Wolfman had mixed feelings about the value of the Associate in Applied Sciences. The Associate in Arts is a transfer degree while the Asso-

ciate in Science is considered a terminal degree. Now, colleges are accepting the Associate in Science degree as transferable, and some seem to accept the Associate in Applied Sciences degree, also. Wolfman commented that students enrolled in the Associate in Applied Sciences degree program may be at a disadvantage in comparison to their classmates enrolled in Associate in Arts and Associate in Science degree programs when they consider continuing their education in the future or plan to advance in their career field.

Wolfman (1987) explained that Dr. Clifford Peterson, President of Quinsigamond Community College, feels that students with an Associate in Applied Sciences degree would benefit since he believed that they would be penalized with just a certificate. Peterson, according to Wolfman, advocates the Commonwealth's support for the Associate in Applied Sciences degree and would like employers to advertise for employees who have an associate degree.

The Associate in Science degree has also been compared to a shortened apprenticeship program by Wolfman (1987). She indicated that the role of an Associate in Science degree is to provide a basic one year foundation. There is no common core nor agreement at RCC about the course requirement for the first year. During the second year, students specialize in their particular occupational-technical area. In regard to the Associate in Arts degree, Wolfman (1987) stated that its function, is to provide the first two years of a four

year degree. she stated that students could then specialize during their junior and senior years.

Finally, Wolfman (1987) indicated that the goals of Roxbury Community College are done independently from the Regents. Goals are required by the Regents only in the community colleges' Five Year Plans. Wolfman indicated that the Regents are now reconsidering the planning process and are discussing their reactions with the presidents and trustees. In addition, Wolfman explained that state colleges and universities impact community colleges in regard to transfer requirements. She also stressed the fact that public higher system is not one system in regard to admission standards. She pointed out that there is no monitoring of admissions standards of state colleges and universities. Although state colleges and universities are allegedly supposed to refer underprepared students to community colleges, they do not do so in a consistent basis, Wolfman claimed. Likewise, she claimed Transfer Compact agreements are accepted by all segments although the extent of acceptance--all of sixty credits--is inconsistent in terms of interpretation.

Springfield Technical Community College

Springfield Technical Community College is located in a national historic land mark site. It is located on 34.5 acres of the Armory Square complex of the former Springfield Armory. The whole Armory square complex--54 acres in total--has been designated as a National Historic Landmark. The re-

maining 19.5 acres of the complex are managed by the National Park Service which oversees the Gun Museum (Office of Academic Affairs, 1985, p. 196). Chartered in 1964, Springfield Technical Institute became Springfield Technical Community College (STCC) in 1967 as it entered the Massachusetts community college system (Scibelli, 1984b).

President Andrew Scibelli (1985a) stressed that STCC has traditionally placed high priority on offering a technical education that is both state of the art and job placement oriented. STCC has program offerings in electronics, computer science, engineering, engineering technologies, business, nursing, and health and human service technologies. It also increased its engineering offerings and expanded transfer programs in engineering science and liberal arts as well as programs such as Fire Science, Law Enforcement, and Early Childhood Education (Scibelli, 1983a).

Moreover, Scibelli (1987a) defined the mission statement as a statement which depicts the ebb and flow of STCC. He explained that the mission statement is adjusted to meet the needs of the community it services. In accordance with the Regents' mandate, Scibelli affirmed that STCC is flexible, accessible, and community oriented. Like its sister institutions, STCC offers a high quality education at a low cost. Scibelli noted STCC's work with local schools in developing 2+2 programs; providing career awareness programs for high school students; targeting minorities and females;

and facilitating the study of advanced science technology for high school faculty. "Probably the greatest strength of [STCC] is its effectiveness in meeting its mission of service to the community through a diversified array of programs ... [which] are selected in cooperation with area persons serving on advisory committees and in direct response to technological change. Specialized programs have been developed to help the under qualified to become qualified for the rigors of the more sophisticated technical and general courses and programs" (Scibelli, 1983a, p. 3).

Also, Scibelli (1987a) stated that the Associate in Arts degree is broad in nature. He considered the Associate in Science degree to be far more specific and offers a more hands on type of educational approach. Scibelli explained that the American Council of Occupational Education recommended making the Associate in Science degree a transfer degree and the Associate in Applied Sciences degree a purely occupational-technical degree. He also believed that an Associate in Arts degree serves as a transferable program which has very limited value as a terminal program. He claimed that they know this fact by the success rate of students in the job market. In regard to the Associate in Science degree, Scibelli contended that it has a very specific role--career and job orientation. He stated that at STCC, the Associate in Science degree is not considered for transfer in general. In specific, it is used as a

transfer option in the area of engineering only. The engineering program is designed so that students with an Associate in Science in Engineering can have junior status at a receiving baccalaureate institution. However, Scibelli contended that most Associate in Science programs are not designed for transfer to a four year college. He explained that basically, the role of the Associate in Applied Sciences degree is like that of the Associate in Science degree. Scibelli point out that its distinction is that it, namely the Associate in Applied Sciences degree, is not designed for transfer. However, Scibelli admitted that what is transferable or not is determined by the receiving four year institution.

Agreeing with President Wolfman, Scibelli (1987a) indicated that STCC's goals are basically determined by means of the Five Year Plan. He explained that input is available from all levels of STCC in the setting of STCC's goals. Scibelli confirmed that the Regents impact community colleges in terms of the money they allot to the colleges. In actuality, Scibelli explained that the Regents only recommended budgetary allotments. He commented that the State Legislature is the source of all funding. The Regents provide direction to the distribution of the state's allotment. When the Legislature approves the annual fiscal budget, it sends it to the Regents who, in turn, indicate the line item accounts. Scibelli took note that the Regents monitor each

college's transfer of funds from any one account to another and can, in effect, say no to any such transfer of funds. He explained that community colleges submit their budgets to the Regents, who, in turn, forward them to the Legislature. Moreover, Scibelli stated that the Regents can also impact the personnel slots and physical plant needs requests of the community colleges. They also can provide the discipline over the colleges' presidents and are ultimately responsible for the presidents' and other administrators' salary increases. In other words, according to Scibelli (1987a), the Regents may employ subtle ways to encourage community colleges to see the world as they do in Massachusetts. Scibelli also affirmed that state colleges and universities impact community colleges in regard to the transferability of the programs. These other two segments, stated Scibelli, dictate to the community colleges the curriculum their programs should have if they wish their students to be able to transfer to their institutions. For example, Scibelli explained, the American Business Association Accreditation group has determined that, in Massachusetts, community college marketing and management classes can not be transferred to a baccalaureate receiving institution since it apparently has come to the conclusion that these classes are upper level courses which should be offered at the receiving public four year institution. In other words, curriculum, the need for FTEs, and program offerings represent

turf issues between the three segments--community colleges, state colleges, and state universities (Parkins, 1987 and Edward Kerr, 1987). Independent, private colleges and universities are more responsive in some instances to STCC transfer students (Parkins, 1987).

The Second Objective

Introduction

The second objective was to investigate the opportunities for community college students for the expressed liberal arts curriculum. All of the eight community colleges studied offered both career programs and transfer programs. Career programs prepare students with the more practical experiences sought by the marketplace--a market place characterized by a need for an increasing degree of specialization on the part of its employees, and transfer programs provide students with broader and more theoretical experiences strengthened by core curriculum requirements which are usually incorporated in the first two years at most four year institutions of higher learning (Peterson, 1983b). The liberal arts program, often referred to as the liberal arts transfer program or transfer program, is designed for those community college students who either intend to gain a general educational background or to ultimately earn a Bachelor in Arts or Bachelor in Science degree (Shively, 1980). This program encompasses courses in areas such as the humanities, social sciences, natural sciences, and mathematics which

provide students with learning experiences that purport to assist them in gaining concepts, knowledge, and skills required to function as a well informed individual (Houlihan, 1983a). Seeking to make the liberal arts program relevant to its students, RCC involves neighboring cultural and community agencies in order to enrich its humanities and social science courses (Thompson, 1985).

While all disciplines, properly taught, convey not only information but also the skills and methods for acquiring more information, the humanities reveal the need for such adaptation skills and an appreciation for them as a vital part of the human behavioral repertoire. The ability to make an appropriate response to change in the light of one's basic objectives and values is an absolutely vital part of the survival skills needed by members of the human species (Shared Vision Task Force, 1987, p. 12).

In other words, the liberal arts curriculum intends to assist students in gaining the "tools to shape their lives" (Traicoff, 1984b, p. 1), namely the insight to understand themselves.

Reflecting a national trend, the number of community college students in Massachusetts enrolled in the liberal arts program continued to increase until the 1970s. The early 1970s represented a period of change at campuses where students began to shift their interests from transfer programs to career programs. Prior to this change, "the popular sentiment had been that career programs tended to be primarily beneficial to those who were less academically

proficient" (Van Winkle, 1983a, p. 3). Gradually, the enrollment figures declined on the one hand and increased in the Associate in Science and in Associate in Applied Sciences programs (Peterson, 1983b). For example, at MBCC in 1968, its student body had 63% of its members enrolled in transfer programs and 37% of its members in career programs. In 1983, "73% of the student body [were] enrolled in career programs, 13.4% [were] in the Developmental Program, and only 13.6% [were] in the transfer programs" (Van Winkle, 1983a, p. 3).

Once, the liberal arts programs were highly structured. In some community colleges like QCC, for example, students had few choices and were required to take two years of English and a foreign language. Now, the liberal arts curriculum is considered more flexible, especially in regard to the sophomore year (Peterson, 1983b). Students at QCC only have to take two semesters of English Composition and one semester of World History. In addition, students may select twelve credit hours in the humanities; twelve credits in the social sciences; six credits in mathematics; and eight credit hours of laboratory science. The remaining eighteen hours are to consist of liberal arts electives, and six credit hours of non-liberal arts are permitted (Peterson, 1983b). Foreign language are no longer required and neither is physical education. In short, apparently, the liberal arts program will continue "to evolve ... in ways calcu-

lated to strengthen and improve its usefulness to students wishing to transfer to upper division institutions" (Shively, 1985b, p. 17). The justification and flexibility of the liberal arts program is as follows:

The area of liberal arts education is very much in need of curriculum assessment, revision, and upgrading. Because liberal arts tend to lend themselves to a 'classical' concept of education, the resultant misconception is that 'classical' can be constant and unchanging. The dramatically obvious changes which are seen relevant to technological educational practices overshadow the changes in curricula and practices which should be applied in the area of liberal arts education to keep the programs current. Not only is this curriculum development essential to the interests of the faculty but also to the students who specifically major in liberal arts and to the students majoring in other programs who select electives toward the goal of a well rounded education (Scibelli, 1983a, pp. 24-25).

Opportunities for community college students for an expressed liberal arts curriculum are based initially on access. Community colleges can no longer be responsive only to expressed needs, asserted Bartley (1985b). He believed that community colleges must exert the initiative in terms of researching and defining student needs as well as removing barriers to access. For example, Bartley (1983a) advocated that access could be expanded by increased outreach efforts on the part of community colleges since "many individuals who would be well served by [community colleges] are only marginally aware of ... the programs and services offered" (p. 2). Lack of information appears to be one of the barriers to access.

Bartley (1983a) pointed out that "even college oriented high school seniors and their counselors could be better informed about ... the opportunities available at [community colleges]" (p. 2). In addition, Bartley encouraged linkages to be developed between community colleges and community service agencies. Furthermore, he (1985b) also recommended that community college satellite campuses may be housed at local schools. In this way, they can serve members of the service area community, who, although they are nervous about pursuing college level work, may be less so if they could take college courses at a local school in an environment with which they are familiar. Moreover, the existence of well publicized support groups also can serve as a means of increasing access. Prospective students will be able to identify with people already enrolled as community college students (Bartley, 1983a, p. 3). In addition, Bartley encouraged community colleges to consider honor level courses to attract and serve "superior students, who, for financial or personal reasons, can best be served by a small public college located within commuting distance of their homes" (Bartley, 1983a, p. 3). At the same time, Bartley (1985b) indicated that community colleges should continue to increase access to groups who are still under represented in Massachusetts' public higher education system: minorities, handicapped persons, adult men, and limited English speaking individuals.

One of the community colleges surveyed takes a unique approach to the issue of access to opportunities to the expressed liberal arts curriculum. STCC recognized the need for a bridge to be built--a linkage to be forged--between the secondary level public school system and the public higher education system early in the student's public school education. STCC pointed out that this early intervention program "facilitates the process of career information for prerequisite academic preparation during high school" (Office of Academic Affairs, 1985, p. 167). In other words, children are educated prior to entering high school about the importance of secondary level courses in the ultimate academic and career goal process by means of a mentor program which pairs junior high school students with community college faculty, and in some cases, with industry sponsors.

STCC has developed such a collaborative career Awareness Program with the Springfield public schools in order to provide assistance in the career and academic guidance of junior high school students (Office of Academic Affairs, 1985). During the summers, STCC provides in-service workshops for Springfield public schools' science and mathematics teachers for the purpose of assisting them in regard to the integration of academic and career information in their classroom instruction. Public school students will also be recruited for summer enrichment courses in science and mathematics. "These mini-courses will help the students build

their confidence about taking science and mathematics courses as they complete junior high school and choose appropriate high schools" (Office of Academic Affairs, 1985, p. 169). Local businesses are encouraged to fund scholarships for students to attend these summer enrichment courses, tuition free.

Demographic Information on Community College Students

When discussing the issue of access to the liberal arts program or to any other program, one must keep in mind the students involved. A profile of community college students enables one to understand who wants to enroll at community colleges and for which programs. Gathering and preparing demographic information are valid and essential means for community colleges to use in the preparation of their long range enrollment planning and in the determination of recruitment strategies. However, not enough efforts have been exerted to make "periodic reports on social, political, economic, and technological trends" (Thompson, 1985, p. 17). Such reports would also aid aid program directors to assess trends when they plan and review their programs. That research which has been done by the Regents illustrated that "many more older students, more 'black and brown students' whose first language is not English, and more students from homes with single parents" (Curwood, 1987d, p. 17) are enrolling in community colleges. Clevenger (1987) defined the typical community college student body as follows:

Students [who] are older, working, goal oriented, are upgrading or changing skills. They often lack the background necessary for college work as well as confidence in their ability to learn. In many cases, they're the first of their family to go past high school ... These students are able to relate what they are studying to other experiences or jobs ... When they see evidence that they can achieve at a high level, their subsequent achievement, and self-confidence increase dramatically (p. 2).

Shively (1985e) stated that many community college students--typical recent high school graduates or mature adults--have financial difficulties and need financial assistance. "Tuition waiver programs have increased from essentially one program, Vietnam Veterans, to at least eight programs, all requiring individual attention: employees of higher education; dependents of employees of higher education; State employees; Massachusetts Vietnam Veterans; National Guard; Unemployed Tuition Waiver; Tuition Waiver-Financial Assistance; and senior citizens" (Shively, 1985e, p. 54). Furthermore, research that has been done pointed out that within two or three years, Massachusetts will witness a 43% drop in the number of eighteen year old students. This drop will cause additional strain and competition between the three segments of the public higher education system (Cohen, 1986a). Van Winkle (1983a) predicted that this drop will be noticeable by 1992. He forecasted that community colleges would fare better than the state colleges and universities.

This decline will be counteracted partially by

the rise in the number of women aged 25-30 returning to college part-time. Also, as inflation continues to force more persons into the work force, programs to train and retrain are becoming increasingly necessary. Therefore, short term intensive training programs are required to alleviate the mismatch between the jobs and the workers seeking those jobs. In particular, the increase in the diversification of high technology industry and the need for specialized personnel create a demand for programs to update and refine employees' skills (p. 10).

Given the stated importance of demographic information about community colleges students, the researcher approached the Regents and each of the eight community colleges in the sample for the following demographic information [See Appendix B] for the academic semesters Fall 1985, Spring 1986, Fall 1986, and Spring 1987:

- | | |
|-------------|------------------------|
| . Age | . Program of Study |
| . Gender | . Financial Aid Status |
| . Race | . Veterans' Status |
| . Residence | . Income Level |
| | . Citizen Status. |

The groups for which the researcher wanted this information were as follows:

- . All students
- . Students enrolled as Liberal Arts (LA) majors
- . Students enrolled as LA-ESL majors
- . Students enrolled as LA-Certificate majors
- . Students enrolled as General Studies majors
- . students enrolled as LA-Business majors
- . Students enrolled as Associate in Science majors
- . Students enrolled as Associate in Science majors by each major area of concentration
- . Students enrolled in non-LA Certificate Programs by each program
- . Students enrolled as Associate in Applied Sciences majors
- . Students enrolled as Associate in Applied Sciences majors by each major area of concentration

- . Students enrolled as part-time students
- . Students enrolled as part-time students by program of study
- . Students who transferred to community colleges
- . Students who transferred to community colleges by program of study.

The researcher wanted to learn who the community college students are in comparison to how they are described by educators locally. She also wanted to examine the profile of students enrolled in liberal arts degree programs and certificate programs and compare their profile to those students enrolled in Associate in Science and Associate in Applied Sciences. The researcher wanted to determine how they compared in regard to the variables of race, age, gender, residence, citizen status, income level, financial aid status, and veterans' status. Moreover, she sought to learn how many students actually were part-time and in which programs they were enrolled. The issue of part-time students was considered so as to determine how much their enrollment affects the total course enrollment reports as well as the enrollment figures in the degree programs. Furthermore, the researcher was interested in learning what kind of students transfer to community colleges and into what programs they enrolled.

In specific, the researcher was intent on learning about the following factors in order to answer the following questions:

Age . Do the ages of the students of the eight

community colleges surveyed reflect what the community colleges indicate as an increasingly older student body?

Gender

Are there more women than men enrolled in community colleges?

Race

What actually is the number of minority students enrolled at the eight community colleges survey? How do they compare in number to the total number of white students enrolled? Of the number of students designated as minorities, how many are American citizens? How many are foreign students? How many are permanent residents?

Program of Study

Who are actually enrolled in the Associate in Arts, Associate in Science, and Associate in Applied Sciences programs? Who have been enrolled in certificate programs? How many of the total number of students enrolled as Associate in Arts, Associate in Science, and Associate in Applied Sciences students are really part-time? How many are minorities and non-citizens?

Income Level

What are the average income categories of community college students and how do their income levels compare to their choice of programs of study--Associate in Arts, Associate in Science, Associate in Applied Sciences, or certificate program?

Citizen Status

How many community college students are not American citizens? How many are foreign students? Of this number, how many are categorized as minorities? Of non-citizen minorities, how do their total numbers compare to the total number of students identified as minorities, how many are actually Americans?

Financial Aid Status

How many students are receiving financial aid? What kind of aid are they receiving? In what kind of programs are they enrolled? What kind of student is identified as Disadvantaged?

Veterans

How many are enrolled as students? What programs have they chosen?

Residence

Where do community college students come from--urban, suburban, exurbia, or inner city

areas? In what countries are their permanent residences? Do these students come from the designated service areas of each community college surveyed, or are they from areas serviced primarily by other community colleges?

Board of Regents

The researcher began her search for this demographic information by presenting to each administrator whom she interviewed at the Board of Regents and community colleges a statistical information request form [See Appendix B]. The reactions she received from the administrators were varied. At the Board of Regents, the researcher met with Dr. Peter Mitchell (1987), Vice Chancellor of Planning and Programming. Dr. Franklyn Jenifer (1987a), Chancellor, had referred the researcher to Dr. Mitchell. During her meeting with Dr. Mitchell, the researcher was informed that Dr. Mitchell considered her statistical information request to be too encompassing. He further explained that the request would place an enormous burden on his staff. However, should the researcher be willing to incur the costs of processing the data which Dr. Mitchell indicated his office already had on computer tape, there then might be a possibility of her receiving these data. The researcher, in turn, explained to Dr. Mitchell that President David Bartley (1987) of Holyoke Community College; James McCann (1986), Director of Data Processing, Bunker Hill Community College; Elaine Smith

(1987), Director of Planning and Institutional Research, North Shore Community College; and Richard Williams (1987c), Assistant to the President of Roxbury Community College had indicated that their colleges had sent these data already to the Regents and had referred the researcher to the Regents to get the data. They explained that to their knowledge, the Regents had processed these data at least for the semesters Fall 1985, Spring 1986, and Fall 1986. Therefore, the researcher concluded that cost should not be a factor and so informed Dr. Mitchell.

Prior to her meeting Dr. Mitchell, the researcher had learned from her field research that the Regents' Enrollment Auditing System (EAS) consisted of an audit of the enrollment of each of the twenty-nine public colleges and universities of the Massachusetts' public higher education system. The first EAS report for the Fall of 1984 was published in March 1985. Before it was designed, the Regents' Management Systems Division would gather data in the following manner:

- . obtained and analyzed student unit records from a number of state colleges and universities
- . reviewed student unit record enrollment systems from other states to identify important data elements
- . made site visits to campuses to observe possible data collection problems (Van Ummerson, 1986, p. A3).

Van Ummerson (1986) explained that the Regents concluded that individual student unit records were necessary because they permitted data verification and validation. How-

ever, they acknowledged that such a system would be hard to implement due to the diversity and size of the three public higher education segments.

The entire procedure of gathering data at the Regents consists of the Enrollment Auditing System Model, the Data Collection Network, the Data Element Set, and the System Operational Phases. The Data Collection Network consists of the twenty-nine public college and university campuses, the Regents' computer network, and the Board of Regents (Van Ummerson, 1986). The Data Element set is made up of four separate tapes requested from each campus for each semester since the Fall 1984 Term:

Tape 1: Structure/Key Control File

- . Campus File
- . Department File
- . Institutional Program/Major File
- . Course Description File
- . Course Schedule File

Tape 2: Enrollment Summary/Student Record Profile

Without Grades

- . Enrollment Summary
- . Student Record Profile

Tape 3: Student Name and Address File

- . Student Name and Address

Tape 4: Enrollment Summary/Student Record Profile

With Grades

- . Enrollment Summary
- . Student Record Profile.

The six System Operational Phases of the Enrollment Auditing System consist of tape preparation, tape production, variable editing, data analysis, system development, and system reporting. After discussing the existence of the data collected by the Regents by means of their Data Collection Network, the researcher began to negotiate a compromise whereby the researcher would study the documents at the Office of the Board of Regents at no cost to Dr. Mitchell's own department. However, Dr. Mitchell expressed concern about providing a study area for the researcher on a consistent basis. By means of the Chancellor's intervention and agreement of Vice Chancellor of Fiscal Affairs and Management, Joseph Finnegan, the researcher was provided a study area in the Fiscal Affairs Department. Dr. Mitchell then referred the researcher to Mr. Ron Biron, Director of Data Quality. He also recommended that the researcher interview Dr. Tossi Taylor, Associate Vice Chancellor of Academic Affairs; Joseph Finnegan, Vice Chancellor of Fiscal Affairs and Management; and Laura Clausen, Director of Planning and research Development. The researcher then met with Mr. Biron after she concluded her interview with Dr. Mitchell in order to discuss her statistical information request.

Biron (1987) stated that he was not certain if the information which the researcher requested could be made available. He explained that the Regents do not require the

community colleges to report by program in the enrollment audit. The colleges only report by race, gender, residence, age, and campus. He also indicated that variables such as the Associate in Applied Sciences nomenclature have not been coded specifically, and therefore, the Regents do not have these data nor are the enrollment figures of the Associate in Applied Sciences degree separated from either the Associate in Arts or the Associate in Science degree. Biron also indicated that the Regents did not have any of the data concerning Spring 1986 which the researcher requested, nor did the Regents begin to collect data for the Spring 1987 term. What the Regents had were data on tape for Fall 1985 and Fall 1986. However, Biron explained that although the Regents had the data which the researcher needed, his staff had not reported on them yet since the data had not been checked for errors nor for completeness. Consequently, Biron pointed out that he did not know how clean the data on the tapes were at the moment.

Biron also indicated that his office did not have the resources nor the staff to process all data from the entire public higher education system. Moreover, he did not believe that the Regents had separate data about the programs of study in which students who transferred to community colleges were enrolled. In regard to the researcher's request for information about students enrolled in LA certificate and non-LA certificate programs, Biron commented that these

Figures may be incorporated in the Associate in Arts and Associate in Science total enrollment figures at some community colleges. He further added that the Regents had asked through their Office of Academic Affairs for a system wide inventory of programs to take place in order to standardize reporting nomenclature. Their intent is to make this coding reporting similar and to have the institutions of higher learning have similar HEGIS [Higher education General Information Survey] codes. According to Biron, currently there are no categories of programs uniformly designated system wide. Biron did release to the researcher the following reports, but he did not provide all of the data as specifically requested by the researcher [See Appendix B]:

- . Higher Education General Information Survey Summary Report 1984
- . Enrollment Auditing System Report State Supported Enrollment Fall 1984
- . Enrollment Auditing System Report State Supported Enrollment Fall 1985
- . Massachusetts Higher Education General Information Survey Summary Report 1985.

However, as stated previously, the Regents' Enrollment Auditing System had generated most of the data the researcher needed since the Fall of 1984. Yet, these data were not provided. What the researcher did receive can be seen in Tables 5 to 7. Consequently, the researcher could

not determine from data supplied by the Regents if, in fact, students were participating in the expressed liberal arts curriculum for the Fall 1985, Spring 1986, Fall 1986, and Spring 1987 semesters. The only demographic data the researcher received from the Regents dealt with the age, race, gender, enrollment status, and county of residence of students enrolled in community colleges for the Fall 1985 semester.

The Regents did not provide data concerning the enrollment figures for full and part-time day students who were enrolled in degree programs--Associate in Arts, Associate in Science, and Associate in Applied Sciences. Furthermore, the Regents did not provide data concerning the enrollment figures of these students by major in each of the degree programs. Consequently, the researcher was unable to determine the number of slots made available for students, especially for those students who declared themselves Associate in Arts majors.

Table 5 shows that HCC, MBCC, and MCC had a majority of students enrolled between the ages of 15-19, whereas BHCC, NSCC, QCC, RCC, and STCC had a majority of students who were twenty years of age and older. The bulk of their student enrollments was made up of students between the ages of 20 and 45. All of the eight community colleges enrolled more women than men. People of no color, namely whites, represented a plurality at MCC, NSCC, QCC, and BHCC. On the other hand,

TABLE 5

DEMOGRAPHIC DATA OF DAY STUDENTS BY
COMMUNITY COLLEGE FOR FALL 1985

Data Requested Age	Bunker Hill (BHCC)		Holyoke (HCC)		Mass Bay (MBCC)		Middlesex (MCC)	
	N	%	N	%	N	%	N	%
15-19	1210	34.6	1756	53.9	1297	54.9	1442	59.4
20-24	873	24.9	573	17.6	558	23.6	564	23.2
25-29	474	13.5	291	8.9	160	6.8	136	5.6
30-34	284	8.1	205	6.3	91	3.9	98	4.0
35-39	177	5.1	121	3.7	64	2.7	77	3.2
40-44	88	2.5	81	2.5	33	1.4	47	1.9
45-59	121	3.5	56	1.7	45	1.9	33	1.4
60-84	29	.8	14	.4	16	.7	1	.1
Unknown	244	7.0	158	5.0	99	4.1	30	1.2
Total	3500	100.0	3255	100.0	2363	100.0	2428	100.0

TABLE 5-CONTINUED

Data Requested	North Shore (NSCC)		Quinsigamond (QCC)		Roxbury (RCC)		Springfield Tech (STCC)		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Age										
15-19	1206	37.9	853	34.2	412	30.9	1407	41.0	9583	43.6
20-24	663	20.9	473	18.9	418	31.3	846	24.6	4968	22.6
25-29	393	12.4	285	11.4	201	15.1	422	12.3	2362	10.7
30-34	282	8.9	252	10.1	120	8.9	290	8.4	1622	7.4
35-39	182	5.7	149	6.0	61	4.6	160	4.7	991	4.5
40-44	121	3.8	74	3.0	29	2.2	84	2.5	557	2.6
45-59	140	4.4	65	2.6	32	2.4	64	1.9	556	2.5
68-84	59	1.8	21	.8	10	.8	53	1.5	203	.9
Unknown	134	4.2	325	13.0	51	3.8	51	3.8	1150	5.2
Total	3180	100.0	2497	100.0	1334	100.0	3435	100.0	21,992	100.0

TABLE 5-CONTINUED

Data Requested Gender	Bunker Hill (BHCC)		Holyoke (HCC)		Mass Bay (MBCC)		Middlesex (MCC)	
	N	%	N	%	N	%	N	%
Female	1901	54.3	2033	62.5	1428	60.4	1472	60.6
Male	1577	45.1	1199	36.8	931	39.4	953	39.3
Unknown	22	.6	23	.7	4	.2	3	.1
Total	3500	100.0	3255	100.0	2363	100.0	2428	100.0

TABLE 5-CONTINUED

Data Requested Gender	North Shore (NSCC)		Quinsigamond (QCC)		Roxbury (RCC)		Spring-Field Tech (STCC)		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Female	1934	60.8	1637	65.6	867	64.9	1932	56.3	13,204	60.0
Male	1212	38.1	860	34.4	462	34.6	1503	43.7	8,697	40.0
Unknown	34	1.1	0	0.0	5	.5	0	0.0	91	.4
Total	3180	100.0	2497	100.0	1334	100.0	3435	100.0	21,992	100.0

TABLE 5-CONTINUED

Data Requested Race	Bunker Hill (BHCC)		Holyoke (HCC)		Mass Bay (MBCC)		Middlesex (MCC)	
	N	%	N	%	N	%	N	%
American Indian	12	.3	14	.4	2	.1	20	.8
Asian Pacific	431	12.3	11	.3	26	1.1	20	.8
Black	475	13.6	81	2.5	62	2.6	41	1.7
Hispanic	152	4.3	78	2.4	00	0.0	29	1.2
Cape Verdean	28	.8	00	0.0	00	0.0	1	.1
White	2051	58.6	2625	80.7	1281	54.2	2294	94.5
Alien	00	0.0	00	0.0	00	0.0	00	0.0
Other	00	0.0	21	.7	00	0.0	00	0.0
Unknown	351	10.1	425	13.0	992	42.0	23	.9
Total	3500	100.0	3255	100.0	2363	100.0	2428	100.0

TABLE 5-CONTINUED

Data Requested Race	North Shore (NSCC)		Quinsigamond (QCC)		Roxbury (RCC)		Spring-Field Tech (STCC)		Total	
	N	%	N	%	N	%	N	%	N	%
American Indian	4	.1	3	.1	00	0.0	15	.5	70	.3
Asian Pacific	33	1.0	32	1.3	19	1.4	14	.4	586	2.7
Black	68	2.1	66	2.6	697	52.3	253	7.4	1743	7.9
Hispanic	79	2.5	95	3.8	250	18.7	279	8.1	962	4.4
Cape Verdean	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0
White	2886	90.8	2260	90.5	184	13.8	1956	55.9	15,537	70.7
Alien	00	0.0	41	1.7	2	.2	66	1.9	109	.5
Other	27	.9	00	0.0	182	13.6	33	1.0	263	1.2
Unknown	83	2.6	00	0.0	00	0.0	819	23.9	2,693	12.2
Total	3180	100.0	2497	100.0	1334	100.0	3435	100.0	21,992	100.0

at MBCC and STCC, whites represented approximately 60% of the total student population only because of the large number of unknown students who are probably mostly white. RCC was the only institution in which the people of no color constituted less than 14% of the total student population, and people of color were more than 86% of all the students enrolled. In terms of the people of color, non-Hispanic Blacks were the largest group enrolled followed by the Hispanic and then Asian students. These eight community colleges had more non-Hispanic Blacks enrolled than Hispanics and Asians. Likewise, seven of the eight community colleges had more Hispanics than Asians. The eighth college, BHCC, had 65% more Asians than Hispanics. Of the total number of Asians enrolled in the Fall 1985 semester at these eight institutions, BHCC had approximately 74% of the total number of Asian students enrolled at these eight schools for the Fall 1985 term. Moreover, whereas no Hispanics were known to be enrolled at MBCC; STCC had 29%; RCC had 26%; and BHCC had 15%. Collectively, these three colleges had 70% of the total Hispanic student population of the eight schools studied.

Furthermore, the Regents explained that the ethnicity not reported headcount and FTE figures are under represented because some campuses code ethnicity unknown as white. Consequently, the white headcount and FTE figures may be over represented in the data reported (Van Ummer-

son, 1986). In addition, the Regents submitted that the Federal Government does not have a general Asian Pacific Islander category as do the Regents in their race variables. In this category are included the Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese, Hawaiian, Guamanian, and Samoan.

It appears, therefore, that under the Federal Census Bureau procedures, other Asians and Pacific Islanders (Cambodians, Laotians, etc.) are included under 'other'. EAS, however, has one general category of 'Asian and Pacific Islanders' which covers the entire geographic area. Another major difference between the two systems is that Cape Verdeans are not listed as a separate category by the Census Bureau as they are within EAS. Finally, the Census includes non-residential aliens but not as a separate category (Van Ummerson, 1986, pp. A16-17).

Furthermore, the United States Department of Education defines American Indians or Alaskan Natives as people who have roots in any of the original peoples of North America and who maintain cultural identification by means of tribal affiliation or community recognition. On the other hand, non-Hispanic Blacks are those individuals who have origins in any of the Black racial groups of Africa. In contrast, Hispanics are identified as persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race. Finally, non-Hispanic whites are those individuals whose origins are in any of the original peoples of Europe, North Africa, or the Middle East (Peng, 1986). The Department of Education

clearly states that the racial categories do not in any way denote scientific definitions of anthropological origins and that a person is only counted in one group. These race and ethnicity categories apply to U.S. citizens and resident aliens, holders of Form 1-551/155. Non-resident aliens are not citizens nor nationals of the United States. They are in the United States on a visa or temporary basis and do not have the right to remain here indefinitely (Peng, 1986).

Table 6 illustrates the enrollment patterns of the Fall 1985 term. With the exception of MBCC, the community colleges had more part-time students than full-time students. In addition, students identified as unclassified represented a significant category. At BHCC, MBCC, MCC, and STCC, unclassified students constituted more than 40% of the total number of students enrolled. At NSCC and QCC, they made up more than 35% of the student population. Only at RCC were unclassified 2% of the total student population. Only three colleges, HCC, MCC, and STCC, reflected pre-college student enrollments. At HCC, these students were less than 1% of the total student population. At MCC, they were 3%, and at STCC, they were more than 4%.

Furthermore, according to the Regents (Marshall, 1986), community colleges reported their enrollment figures by using the following categories: gender, level (pre-college and lower division), and status (classified and un-

TABLE 6

DAY DIVISION HEADCOUNT BY ENROLLMENT CATEGORIES
BY COMMUNITY COLLEGE FOR FALL 1985

Data Requested	Bunker Hill		Holyoke		Mass Bay		Middlesex	
	N	%	N	%	N	%	N	%
Full-Time	2742	41.4	2192	45.6	2372	54.4	1976	28.8
Part-Time	3867	58.6	2617	54.4	1989	45.6	4891	71.2
Total	6609	100.0	4809	100.0	4361	100.0	6867	100.0
Classified	3466	52.4	4809	100.0	2577	59.1	3519	51.2
Unclassified	3143	47.6	0	0.0	1784	40.9	3348	48.8
Total	6609	100.0	4809	100.0	4361	100.0	6867	100.0
Pre-College	0	0.0	40	.9	0	0.0	17	.3
Lower Division	6609	100.0	4769	99.1	4361	100.0	6850	97.7
Total	6609	100.0	4809	100.0	4361	100.0	6867	100.0

TABLE 6 -CONTINUED

Data Requested	North Shore		Quinsigamond		Roxbury		Springfield Tech		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Full-Time	1962	34.3	1524	33.7	889	42.1	2477	39.4	16,134	39.1
Part-Time	3740	65.6	2991	66.3	1223	57.9	3814	60.6	25,132	60.9
Total	5702	100.0	4515	100.0	2112	100.0	6291	100.0	41,266	100.0
Classified	3614	63.4	2933	65.0	2070	98.0	3435	54.6	26,423	64.0
Unclassified	2088	36.6	1582	35.0	42	2.0	2856	45.4	14,843	36.0
Total	5702	100.0	4515	100.0	2112	100.0	6291	100.0	41,266	100.0
Pre-College Lower Division	0	0.0	0	0.0	0	0.0	287	4.6	344	.8
Total	5702	100.0	4514	100.0	2112	100.0	6291	100.0	41,266	100.0

classified as well as full and part-time). Classified students are students who are formally matriculated as candidates for a degree. Unclassified students are those who are taking courses for credit, but are not according to the colleges' records degree candidates at the time they are reported. These data indicated that the bulk of unclassified students are also part-time students (Marshall, 1986).

Because of the nature of the definition of 'unclassified' students, it is often difficult for an institution to accurately categorize them according to level--either undergraduate or post-baccalaureate. As a result, it can not be assumed that unclassified students are reported in the same consistent or uniform manner as the classified enrollment figures. Because the data on unclassified students are often deemed less reliable than that on classified students, data for both groups are presented separately for those who require data on students currently enrolled in degree programs (p. ii).

In regard to students' status, lower division refers to their freshman and sophomore class designation (Van Ummer-son, 1986), and pre-college alludes to the services community colleges provide students who wish to prepare for and earn the Massachusetts State High School Equivalency Certificate. Some community colleges like NSCC offer services for literacy training and/or skill development in mathematics, reading, or English, beginning at grade levels 0 to grade 8 (Traicoff, 1986c).

Table 7 makes clear that the community colleges serve students outside of the county in which they are located. BHCC and RCC are located in Suffolk County. HCC and STCC are

found in Hampden county. MBCC is in Norfolk County; NSCC is located in Essex County; and QCC is found in Worcester County. Forty-four percent of students enrolled in BHCC reside in Suffolk county. The remaining 56% came from other counties, with 42% coming from MCC. Seventy-four percent of HCC's students reside in Hampden County. On the other hand, 32% of MBCC's students reside in Norfolk County and 48% live in Middlesex County. Ninety-three percent of MCC's students are located in Middlesex County. Yet, more than 99% of the students served by NSCC have no designated county residence. In contrast, 91% of QCC's students reside in Worcester County. The county residences of 99% of RCC's students are unknown. Eighty-four percent of STCC's students live in Hampden County. As far as the issue of residence is concerned, "an in-state student is defined as an American citizen or a permanent or a permanent alien resident who has lived in Massachusetts for six continuous months with the intention of living in the State indefinitely" (Scibelli, 1986b, p. 16). The term outside Massachusetts includes out of state students and foreign students when appropriate zip code and country codes were provided. The Regents pointed out that the non-resident alien headcount and FTE figures might be under represented "because campuses do not usually report them separately when reporting racial/ethnic data to the State" (Van Ummerson, 1986, p. I15). The researcher noted that data provided by the Regents in Table 6 were not con-

TABLE 7

GEOGRAPHICAL DISTRIBUTION HEADCOUNT BY COUNTY
BY COMMUNITY COLLEGE FOR FALL 1985

County by College	Barn- stable	Berk- shire	Bris- tol	Dukes	Essex	Frank- lin	Hamp- den	Hamp- shire
Bunker Hill	2	2	7	0	107	1	1	1
Holyoke	2	5	0	0	0	15	2410	780
Mass Bay	2	0	22	0	22	0	5	0
Middlesex	0	0	1	0	67	0	1	0
North Shore	1	0	0	0	17	0	0	0
Quinsigamond	1	0	0	0	0	2	7	2
Roxbury	0	0	0	0	0	0	0	0
Springfield Tech	3	13	2	0	2	18	2876	223
Total	11	20	32	0	215	35	5300	1006

TABLE 7 - CONTINUED

County by College	Middle- sex	Nantuc- ket	Nor- folk	Ply- mouth	Suf- folk	Worces- ter	Out of Mass	County Unknown	Total
Bunker Hill	1468	1	136	18	1547	8	178	24	3500
Holyoke	4	0	2	0	0	9	28	0	3255
Mass Bay	1134	0	762	38	286	42	11	39	2363
Middlesex	2258	0	17	0	36	18	21	9	2428
North Shore	0	1	0	0	1	0	2	3158	3180
Quinsigamond	111	0	11	1	2	2264	14	82	2497
Roxbury	0	0	0	0	0	0	1	1333	1334
Springfield Tech	7	1	2	2	1	37	153	95	3435
Total	4982	3	930	59	1873	2378	408	4740	21,992

sistent with the totals in Table 7 which were the result of other sets of data provided by the Regents.

Bunker Hill Community College

The researcher also approached each of the eight community colleges with the intent to learn from the statistical information request [See appendix B] who are participating in the expressed liberal arts curriculum; who are enrolled in liberal arts in specific; and who the community college students are in general. President Harold Shively (1986) of Bunker Hill Community College (BHCC) referred the researcher to James McCann, Director of Data Processing; Robert Margolis, Director of Research; and Dr. William Craft, Dean of Institutional Research and Planning. The researcher learned from James McCann (1986) that the issue of identifying liberal arts students at BHCC is problematic because of the inclusion in this category of the following students: students who are enrolled in liberal arts certificate diploma programs; ESL students who also are enrolled in this group; General Studies majors; and business majors. In addition, McCann explained that BHCC had some data as to who were the transfer students at BHCC, but he did not have any data as to where BHCC graduates transferred after completion of their degree program requirements or during the course of their stay at BHCC. He referred the researcher to the Regents for gathering the data which she requested. Furthermore, McCann indicated that he could not provide infor-

mation about the income level and financial aid status of students. McCann pointed out that most of the data the researcher requested had already been sent to the Computer Processing Division of the Regents' Office of Planning and Program Development. He stated that the information for Fall 1985, Spring 1986, Fall 1986, and Spring 1987 as requested by the researcher would be prepared by the Spring 1987 semester. The researcher met with his staff associate Ellen Leahy (1987a), Administrative Manager, and received some data in April 1987. The Researcher returned in May 1987 and received raw data--not tabulated nor calculated--for Fall 1985, Spring 1986, and Fall 1986 in terms of students' age, race, gender, residence, major, citizen status, and veterans' status. Spring 1987 data were not prepared. What was given to the researcher concerning Spring 1987 were the raw data about course offerings. The researcher consulted Leahy (1987b) and Michael Ferretti (1987), Programmer, about the reason why her requests for curriculum data for Fall 1985, Spring 1986, and Fall 1986 had not been provided. They indicated that the data had been processed and rolled over [See Chapter 1-Definition of Terms] onto the students' transcripts shortly after the next semester started. Consequently, since they said that they had not received notification of the researcher's 1986 request for curriculum data made to McCann (1986) in the Fall 1986, they did not process them for her. They advised that she go to the Regis-

trar's Office and hand count the course data she wanted from the hard copy printouts the Registrar would have for the Fall 1985, Spring 1986, and Fall 1986 semesters. Such an implementation of their recommendation was not viable for the researcher due to limitations of time, staff, and funds.

The researcher then met with the Dean of Institutional Research and Planning, Dr. William Craft (1986). Dr. Craft explained that his division's computer system would only focus on two semesters at one time, namely Fall 1986 and Spring 1987. Furthermore, as of December 22, 1986, he stated he would not be able to give the researcher information about Fall 1985 and Spring 1986. Craft also contacted Margolis in the presence of the researcher to clarify the researcher's understanding that BHCC offered General Studies as a liberal arts major in the day division. Margolis confirmed that General Studies was, in fact, considered a liberal arts major in the day division. The researcher received from the Dean a copy of BHCC's Fall 1986 Day Division Representative Enrollment Statistics as well as the Dean's assurance he would speak to McCann and Margolis about the researcher's data request. Tables 8 to 12 represent the data which the research was able to gather. Processing raw demographic data for Fall 1985, Spring 1986, Fall 1986, and Spring 1987 was not viable for the researcher.

Table 8 shows that the majority of the students enroll-

TABLE 8

DEMOGRAPHIC DATA FOR ALL DAY STUDENTS ENROLLED AT
BUNKER HILL COMMUNITY COLLEGE BY ACADEMIC SEMESTER

Data Requested	Fall 1985		Fall 1986	
	<u>N</u>	%	<u>N</u>	%
Age				
1-16	40	1.1	40	1.3
17-20	1611	43.1	1401	45.6
21-24	805	21.5	605	19.7
25-34	765	20.5	572	18.6
35-44	322	8.6	237	7.7
45+	121	3.2	121	3.9
Unknown	73	2.0	100	3.2
Total	3737	100.0	3076	100.0

TABLE 8--CONTINUED

Data Requested	Fall 1985		Fall 1986	
	N	%	N	%
Gender				
Female	2184	58.4	1802	58.6
Male	1553	41.6	1274	41.4
Total	3737	100.0	3076	100.0

TABLE 8-CONTINUED

Data Requested	Fall 1985		Fall 1986	
	N	%	N	%
Race				
American Indian	12	.3	12	.4
Asian Pacific	314	8.4	322	10.5
Black	322	8.6	342	11.1
Hispanic	169	4.5	169	5.5
Cape Verdean	0	0.0	0	0.0
White	2839	76.0	2150	69.9
Alien	0	0.0	0	0.0
Other	81	2.2	81	2.6
Total	3737	100.0	3076	100.0

ed at BHCC for the Fall 1985 and Fall 1986 terms are twenty-one years of age and older. Forty-three percent in Fall 1985 and 45% in Fall 1986 were between the ages 17 and 20. Women represented approximately 58% of the total student population in Fall 1985 and Fall 1986. Whites represented 76% of the student body in Fall 1985 and approximately 70% in Fall 1986. Blacks increased from 8% in Fall 1985 to 11% in Fall 1986 of the total student body; Hispanics increased 1% from 4.5% in Fall 1985 to 5.5% in Fall 1986; the Asians also had about a 2% increase--from 8% in Fall 1985 to 10% in Fall 1986. There was a decline of about 700 white students from Fall 1985 to Fall 1986.

Table 9 indicates that students enrolled in the Associate in Arts degree program constituted 26.6% in Fall 1985; 30.7% in Spring 1986; 34% in Fall 1986; 38.6% in Spring 1987 of the total students. The number of Associate in Science students with non-declared majors declined over this period. However, the number of students enrolled in liberal arts remained relatively stable. The students enrolled in the Associate in Science degree program represented 49.9% in Fall 1985; 52% in Spring 1986; 52.3% in Fall 1986; and 51.5% in Spring 1987. The percent of students enrolled in each academic semester enrolled in programs other than the Associate in Arts degree program for these four semesters went from about 75% in Fall 1985 to 60% in Spring 1987. However, this resulted almost entirely because of decreases in the number

TABLE 9

PROGRAM ENROLLMENT SUMMARY OF DAY STUDENTS
ENROLLED AT BUNKER HILL COMMUNITY COLLEGE BY
ACADEMIC SEMESTER

Degree	Fall 1985		Spring 1986	
	<u>N</u>	%	<u>N</u>	%
Associate in Arts	994	26.6	901	30.7
Liberal Arts	614	61.8	542	60.2
Liberal Arts- Business	144	14.5	123	13.7
Liberal Arts- ESL	236	23.7	236	26.1
Sub-Total	994	100.0	901	100.0
Associate in Science	1845	49.4	1526	52.0
Other	898	24.0	508	17.3
Certificate-LA	14	1.6	11	2.2

TABLE 9-CONTINUED

Degree	<u>N</u>	Fall 1985 %	<u>N</u>	Spring 1986 %
Certificate- Non-LA	214	23.8	189	37.2
No Declared Major	304	33.9	189	37.2
Action Boston Community De- velopment	143	15.9	119	23.4
Unknown	223	24.8	0	0.0
Sub-Total	898	100.0	508	100.0
Total	3737	100.0	2935	100.0

TABLE 9-CONTINUED

Degree	<u>N</u>	Fall 1986 %	<u>N</u>	Spring 1987 %
Associate in Arts	1044	34.0	1111	38.6
Liberal Arts	566	54.2	588	53.0
Liberal Arts- Business	143	13.7	146	13.1
Liberal Arts- ESL	335	32.1	377	33.9
Sub-Total	1044	100.0	1111	100.0
Associate in Science	1608	52.3	1482	51.5
Other	424	13.7	287	9.9
Certificate-LA	14	3.3	8	2.8

TABLE 9-CONTINUED

Degree	N	Fall 1986 %	Spring 1987 N	Spring 1987 %
Certificate- Non-LA	231	54.5	201	70.0
No Declared Major	46	10.9	3	1.1
Action Boston Community De- velopment	103	24.3	75	26.1
Unknown	30	7.0	0	0.0
Sub-Total	424	100.0	287	100.0
Total	3076	100.0	2880	100.0

of students in the Associate in Science program and those with non-declared majors. This table also points out that of the total number of Associate in Arts students, a significant portion is made up of English as a Second Language students. In the Fall 1985 term, ESL students represented 23.7%; in Spring 1986--26.1%; in Fall 1986--32.1%; and in Spring 1987--33.9%. A second group which impacts the Associate in Arts degree figures is that which is designated Liberal Arts-Business. In Fall 1985, these students constituted 14.5% of the total number of Associate in Arts students; in Spring 1986--13.7%; in Fall 1986--13.7%; and in Spring 1987--13.1%. Only 61.8% in Fall 1985; 60.2% in Spring 1986; 54.2% in Fall 1986; and 53% in Spring 1987 were designated as liberal arts majors from the total number of students enrolled in the Associate in Arts degree program.

Table 10 points out that the age distribution of the liberal arts majors is as follows: in the Fall 1985 term, 76.1% were twenty-one years and older; in Spring 1986, 75.9% were older than twenty years; and in Fall 1986, 78.8% were twenty-one years and older. More women than men enrolled in liberal arts: 50.4% in Fall 1985; 63.6% in Spring 1986; and 57.3% in Fall 1986. Whites represented the majority of students enrolled in liberal arts. Only 12.9% Blacks; 6.1% Asians; and 4.6% Hispanics were enrolled in liberal arts in Fall 1985 of the total number of students

enrolled. in the Spring 1986 term, 11.8% Blacks; 6.1% Asians; and 5.1% Hispanics were designated liberal arts majors; and in the Fall 1986 term, 13.6% Blacks; 8.3% Asians; and 3.9% were identified as liberal arts majors. Of the total number of students enrolled as liberal arts majors, 12.9% were not American citizens in the Fall 1985 term; 11.1% were not U.S. citizens in the Spring 1986; and 15.4% were not American citizens in the Fall 1986 term. The researcher noted that the data provided by BHCC for Table 9 were not consistent with the data provided for Table 10.

Table 11 documents that in comparison to the non-ESL population, the LA-ESL students enrolled at Bunker Hill are much older. In Fall 1985, only 3.5% of the total number of students designated as LA-ESL majors were between the ages of 17 and 20; 1.3% in Spring 1986; and 7.4% in Fall 1986. In the Fall 1985 term, women constituted 50% of the total LA-ESL student population, whereas in Spring 1986, the women represented 46.1% of the LA-ESL students, and then in the Fall 1986 term, they increased to 69.3% of the LA-ESL student body. Asians make up 77.3% of the LA-ESL group in Fall 1985; 74.6% in Spring 1986; and 38.6% in Fall 1986. Whites, namely people of no color, were only 6.5% in Fall 1985 and 7% in Spring 1986 but increased to 31.2% in Fall 1986. Hispanics also displayed an increase. In Fall 1985, they were 10% of the LA-ESL student population. In Spring 1986, they were 10.5%, and in Spring 1986, they increased to 15.2%.

TABLE 10

DEMOGRAPHIC DATA FOR DAY STUDENTS ENROLLED AT
 BUNKER HILL COMMUNITY COLLEGE BY ACADEMIC
 SEMESTER AS LIBERAL ARTS MAJORS

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Age						
17-20	82	13.9	97	14.1	128	21.2
21-24	261	44.5	280	40.6	226	37.4
25-34	169	28.8	184	26.7	155	25.7
35-44	44	7.5	51	7.4	53	8.8
45+	8	1.4	21	3.1	10	1.7
Unknown	23	3.9	56	8.1	32	5.2
Total	587	100.0	689	100.0	604	100.0

TABLE 10-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Citizen Status						
Citizen	511	87.1	613	88.9	511	84.6
Non-citizen	76	12.9	76	11.1	93	15.4
Total	587	100.0	689	100.0	604	100.0
Gender						
Female	296	50.4	438	63.6	346	57.3
Male	291	49.6	251	36.4	258	42.7
Total	587	100.0	689	100.0	604	100.0

TABLE 10-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	N	%	N	%	N	%
Race						
American Indian	1	.2	5	.7	2	.3
Asian Pacific	36	6.1	42	6.1	50	8.3
Black	76	12.9	81	11.8	82	13.6
Hispanic	27	4.6	35	5.1	24	3.9
Cape Verdean	11	1.8	14	2.0	13	2.2
White	405	69.2	474	68.8	408	67.5
Other	2	.3	1	.2	4	.7
Unknown	29	4.9	37	5.3	21	3.5
Total	587	100.0	689	100.0	604	100.0

TABLE 11

DEMOGRAPHIC DATA FOR DAY STUDENTS ENROLLED AT
 BUNKER HILL COMMUNITY COLLEGE BY ACADEMIC
 SEMESTER AS LA-ESL MAJORS

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	N	%	N	%	N	%
Age						
17-20	9	3.5	3	1.3	31	7.4
21-24	45	17.3	44	19.3	89	21.2
25-34	133	51.2	135	59.2	171	40.7
35-44	28	10.8	28	12.3	56	13.3
45+	18	6.9	14	6.1	15	3.6
Unknown	27	10.3	4	1.8	58	13.8
Total	260	100.0	228	100.0	420	100.0

TABLE 11-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Citizen Status						
Citizen	82	31.5	35	15.3	144	34.3
Non-citizen	178	68.5	193	84.7	276	65.7
Total	260	100.0	228	100.0	420	100.0
Gender						
Female	130	50.0	105	46.1	291	69.3
Male	130	50.0	123	53.9	129	30.7
Total	260	100.0	228	100.0	420	100.0

TABLE 11-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Race						
American Indian	0	0.0	0	0.0	2	.5
Asian Pacific	201	77.3	170	74.6	162	38.6
Black	13	5.0	14	6.1	45	10.7
Hispanic	26	10.0	24	10.5	64	15.2
Cape Verdean	2	.8	4	1.8	7	1.7
White	17	6.5	16	7.0	131	31.2
Other	1	.4	0	0.0	6	1.4
Unknown	0	0.0	0	0.0	3	.7
Total	260	100.0	228	100.0	420	100.0

The Black LA-ESL student group constituted in Fall 1985 5% of the total LA-ESL student body; in Spring 1986--6.1% and in Fall 1986--10.7%. In regard to the issue of citizenship, 68.5% of the LA-ESL majors were not U.S. citizens in Fall 1985; 84.7% were not citizens in Spring 1986; and 65.7% were not American citizens in Fall 1986.

In contrast, Table 12 reveals that 86.6% of the students enrolled in the LA-certificate program were whites in Fall 1985; 93.8% were white in Spring 1986; and 77.8% were white in Fall 1986. In Fall 1985, 6.7% were Black and 6.7% were Hispanic; in Spring 1986, 6.2% were Hispanic. No Blacks were recorded. On the other hand, in Fall 1986, 11.1% were Black and 11.1% were recorded as Hispanic. The majority of LA-certificate students were older than twenty years of age in the Fall 1985 and Spring 1986 terms. Yet, in the Fall 1986 semester, 44.4% of these students were between the ages of 17 to 20 years old. Women constituted 46.7% of this group in Fall 1985; 75% in Spring 1986; and 55.5% in Fall 1986. Six point seven percent were not American citizens in Fall 1985; and 27.8% were identified as non-American citizens in Spring 1986.

Table 13 illustrates that there were more men than women enrolled as LA-Business majors. In Fall 1985, men make up 62.5% of the total LA-Business student population; in Spring 1986, 50.3% were men; and in Fall 1986, 55.4% were men. Only 13.2% of the LA-Business majors were between the

TABLE 12

DEMOGRAPHIC DATA FOR DAY STUDENTS ENROLLED AT
 BUNKER HILL COMMUNITY COLLEGE BY ACADEMIC
 SEMESTER AS LA-CERTIFICATE MAJORS

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Age						
17-20	1	6.7	1	6.3	8	44.4
21-24	10	66.7	4	25.0	3	16.7
25-34	2	13.3	3	18.8	4	22.2
35-44	0	0.0	0	0.0	0	0.0
45+	0	0.0	2	12.4	0	0.0
Unknown	2	13.3	6	37.5	3	16.7
Total	15	100.0	16	100.0	18	100.0

TABLE 12-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	N	%	N	%	N	%
Citizen Status						
Citizen	14	93.3	16	100.0	13	72.2
Non-citizen	1	6.7	0	0.0	5	27.8
Total	15	100.0	16	100.0	18	100.0
Gender						
Female	7	46.7	12	75.0	10	55.5
Male	8	53.3	4	25.0	8	44.5
Total	15	100.0	16	100.0	18	100.0

TABLE 12-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Race						
American Indian	0	0.0	0	0.0	0	0.0
Asian Pacific	0	0.0	0	0.0	0	0.0
Black	1	6.7	0	0.0	2	11.1
Hispanic	1	6.7	1	6.2	2	11.1
Cape Verdean	0	0.0	0	0.0	0	0.0
White	13	86.6	15	93.8	14	77.8
Other	0	0.0	0	0.0	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
Total	15	100.0	16	100.0	18	100.0

TABLE 13

DEMOGRAPHIC DATA FOR DAY STUDENTS ENROLLED AT
 BUNKER HILL COMMUNITY COLLEGE BY ACADEMIC
 SEMESTER AS LA-BUSINESS MAJORS

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Age						
17-20	19	13.2	22	14.2	61	36.3
21-24	56	38.9	69	44.5	63	37.5
25-34	38	26.4	43	27.7	38	22.6
35-44	15	10.4	10	6.5	6	3.6
45+	6	4.2	9	5.8	0	0.0
Unknown	10	6.9	2	1.3	0	0.0
Total	144	100.0	155	100.0	168	100.0

TABLE 13-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Citizen Status						
Citizen	119	82.6	134	86.5	143	85.1
Non-citizen	25	17.4	21	13.5	25	14.9
Total	144	100.0	155	100.0	168	100.0
Gender						
Female	54	37.5	77	49.7	75	44.6
Male	90	62.5	78	50.3	93	55.4
Total	144	100.0	155	100.0	168	100.0

TABLE 13-CONTINUED

Data Requested	Fall 1985		Spring 1986		Fall 1986	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Race						
American Indian	1	.7	1	.7	0	0.0
Asian Pacific	12	8.3	7	4.5	13	7.7
Black	10	6.9	12	7.6	18	10.7
Hispanic	3	2.1	5	3.2	6	3.6
Cape Verdean	1	.7	1	.7	0	0.0
White	111	77.1	121	77.5	126	75.0
Alien	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
Unknown	6	4.2	9	5.8	5	3.0
Total	144	100.0	155	100.0	168	100.0

ages of 17 and 20 years old in Fall 1985; 14.2% in Spring 1986; and 36.3% in Fall 1986. The majority of the LA-Business majors were whites: 77.1% in Fall 1985; 77.4% in Spring 1986; and 75% in Fall 1986. People of color were not enrolled to any great extent. Blacks were 6.9%; Asians were 8.3%; and Hispanics were 2.1% of this group in the Fall 1985 term. In the Spring 1986 term, Blacks represented 7.7% of LA-Business majors; Asians--4.5%; and Hispanics--3.2%. In Fall 1986, Blacks increased to 10.7%; Asians increased to 7.7%; and Hispanics increased to 3.6%. Non-U.S. citizens comprised 17.4% of the LA-Business majors in Fall 1985; 13.5% in Spring 1986; and 14.9% in Fall 1986.

Holyoke Community College

The researcher met with President David Bartley (1987) of Holyoke Community College and presented her data requests which include information about student enrollments, student demographics, students who transfer to HCC, and HCC students who transferred to four year institutions. President Bartley recommended that the researcher met with Dr. Paul Raverta (1987), Registrar, for these data. In regard to student demographics, Dr. Raverta explained that HCC had data prepared for age, gender, race, program of study, and residence of all students enrolled for Fall 1985, Spring 1986, Fall 1986, and Spring 1987. However, HCC did not have data prepared nor available for variables of income level, citizen status, financial aid status, and veterans' status. Raverta pointed out that

community colleges are allowed to collect data about income level and financial aid status but are not mandated to do so. Furthermore, Raverta explained that disadvantaged students have an income of under \$5,000.00. However, a recent Massachusetts State Office of Education guideline has allowed community colleges to include PELL Grant students enrollment figures in the total figures of disadvantaged students although their income may be more than \$5,000.00 (Cronin, 1986).

PELL Grants are federally funded grants for needy undergraduate students. The PELL Grant Program is the single largest Federal grant program. Awards for eligible students have ranged from \$200.00 to \$2100 per academic year, although the typical maximum for attendance at Holyoke Community College has been \$1710. Students who are at least half-time but less than full-time qualify for reduced awards. All students eligible for PELL Grant consideration who also want any financial aid through HCC are required to apply for the PELL Grant and submit the resulting "Student Aid Report" to the Financial Aid Office, whether or not it indicates eligibility (Bartley, 1986b, p. 9).

Table 14 indicates the age distribution of full and part-time students enrolled in the Fall 1985, Spring 1986, Fall 1986, and Spring 1987 academic semesters. Students who were twenty years older constitutes 61.6% in Fall 1985; 71.2% in Spring 1986; 61.3% in Fall 1986; and 79.9% in Spring 1987 of the total student population. Table 15 shows that women made up 62.5% of the total enrollment in Fall 1985; 62.3% in Spring 1986; 62% in Fall 1986; and 65.3% in spring 1987. Table 16 presents the fact that 80.7% in Fall 1985 of the total student body were whites; 79.6% in Spring 1986 were whites; 77.4% in

TABLE 14

AGE DISTRIBUTION OF DAY STUDENTS ENROLLED AT HOLYOKE COMMUNITY COLLEGE BY ACADEMIC SEMESTER

Data Requested	Male		Fall 1985 Female		Unknown		Total	
	N	%	N	%	N	%	N	%
0-19	513	41.1	734	58.8	1	.1	1248	38.4
20-24	450	45.1	537	54.8	1	.1	998	30.7
25-29	88	28.4	222	71.6	0	.0	310	9.5
30-44	64	14.2	385	85.6	1	.2	450	12.8
45-50	9	13.2	59	86.8	0	.0	68	2.1
60+	6	40.0	9	60.0	0	.0	15	.5
Unknown	56	34.2	85	51.8	23	14.0	104	5.0
Total	1196	36.8	2031	62.4	26	.8	3253	100.0

TABLE 14-CONTINUED

Spring 1986

Data Requested	Male		Female		Unknown		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
0-19	232	42.8	309	57.0	1	.2	542	18.8
20-24	603	44.9	740	55.1	0	.0	1343	46.7
25-29	96	29.7	227	70.3	0	.0	323	11.2
30-44	91	18.5	400	81.5	0	.0	491	17.1
45-50	9	10.0	80	88.9	1	1.1	90	3.1
60+	7	43.8	9	56.2	0	.0	16	.6
Unknown	26	35.6	29	39.7	18	24.7	73	2.5
Total	1064	37.0	1794	62.3	20	.7	2878	100.0

TABLE 14-CONTINUED

Data Requested	Male		Fall 1986 Female		Unknown		Total	
	N	%	N	%	N	%	N	%
0-19	523	41.0	742	58.2	11	.8	1276	38.7
20-24	475	49.1	487	50.4	5	.5	967	29.3
25-29	84	25.6	242	73.8	2	.6	328	10.0
30-44	71	14.4	418	85.0	3	.6	492	15.0
45-50	13	12.2	92	86.0	2	1.8	107	3.3
60+	7	29.2	17	70.8	0	.0	24	.7
Unknown	27	26.2	45	43.7	31	30.1	103	3.0
Total	1200	36.4	2043	62.0	54	1.6	3297	100.0

TABLE 14-CONTINUED

Data Requested	Male		Spring 1987 Female		Unknown		Total	
	N	%	N	%	N	%	N	%
0-19	236	40.4	348	59.6	0	.0	584	20.1
20-24	598	47.4	663	52.5	1	.1	1262	43.4
25-29	106	30.6	241	69.4	0	.0	347	11.9
30-44	84	15.6	453	84.4	0	.0	537	18.5
45-50	21	14.8	121	85.2	0	.0	142	4.9
60+	8	33.0	16	67.0	0	.0	24	.8
Unknown	8	53.0	6	40.0	1	7.0	15	.4
Total	1061	36.4	1848	63.5	2	.1	2911	100.0

TABLE 15

RACIAL COMPOSITION OF DAY STUDENTS ENROLLED AT
HOLYOKE COMMUNITY COLLEGE BY ACADEMIC SEMESTER

Data Requested	Fall 1985					
	<u>N</u>	Full-Time %	<u>N</u>	Part-Time %	<u>N</u>	Total %
American Indian	8	57.1	6	42.9	14	.4
Asian Pacific	7	63.6	4	36.4	11	.3
Black	59	72.8	22	27.2	81	2.5
Hispanic	46	59.0	32	41.0	78	2.4
Cape Verdean	0	0.0	0	0.0	0	0.0
White	1800	68.6	824	31.4	2624	80.7
Alien	13	61.9	8	38.1	21	.7
Unknown	254	59.9	170	40.1	424	13.0
Total	2187	67.2	1066	32.8	3253	100.0

TABLE 15-CONTINUED

Spring 1986

Data Requested	Full-Time		Part-Time		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
American Indian	7	63.6	4	36.4	11	.4
Asian Pacific	5	62.5	3	37.5	8	.3
Black	40	54.8	33	45.2	73	2.5
Hispanic	60	65.2	32	34.8	92	3.2
Cape Verdean	0	0.0	0	0.0	0	0.0
White	1488	65.0	803	35.0	2291	79.6
Alien	11	52.4	10	47.6	21	.7
Unknown	204	53.4	178	46.6	382	13.3
Total	1815	63.1	1063	36.9	2878	100.0

TABLE 15-CONTINUED

Data Requested	Fall 1986		Part-Time		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
American Indian	8	88.9	1	11.1	9	.3
Asian Pacific	9	75.0	3	25.0	12	.4
Black	59	64.8	32	35.2	91	2.8
Hispanic	82	64.1	46	35.9	128	3.9
Cape Verdean	0	0.0	0	0.0	0	0.0
White	1718	67.3	835	32.7	2553	77.4
Alien	9	56.3	7	43.7	16	.5
Unknown	293	60.1	195	39.9	488	14.7
Total	2178	66.1	1119	33.9	3297	100.0

TABLE 15-CONTINUED

Data Requested	Full-Time		Spring 1987		Part-Time		Total	
	N	%	N	%	N	%	N	%
American Indian	5	55.5	4	44.5	9	.4		
Asian Pacific	3	37.5	5	62.5	8	.9		
Black	43	51.8	40	48.2	83	2.9		
Hispanic	88	68.2	41	31.8	129	4.4		
Cape Verdean	0	0.0	0	0.0	0	0.0		
White	1376	61.5	861	38.5	2237	76.9		
Alien	7	50.0	7	50.0	14	.5		
Unknown	236	54.8	195	45.2	431	14.6		
Total	1758	60.4	1153	39.6	2911	100.0		

TABLE 16
 GENDER COMPOSITION OF DAY STUDENTS ENROLLED AT
 HOLYOKE COMMUNITY COLLEGE BY ACADEMIC SEMESTER

Data Requested	Full-Time		Fall 1985 Part-Time		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Gender						
Female	1247	61.4	785	38.6	2032	62.5
Male	929	77.6	269	22.4	1198	36.8
Unknown	11	47.8	12	52.2	23	.7
Total	2187	67.2	1066	32.8	3253	100.0

TABLE 16-CONTINUED

Data Requested	Full-Time		Spring 1986 Part-Time		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Gender						
Female	1060	59.1	734	40.9	1794	62.3
Male	747	70.2	317	29.8	1064	37.0
Unknown	8	40.0	12	60.0	20	.7
Total	1815	63.1	1063	36.9	2878	100.0

TABLE 16-CONTINUED

Data Requested	Full-Time		Fall 1986 Part-Time		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Gender						
Female	1223	59.9	820	40.1	2043	62.0
Male	921	76.8	279	23.2	1200	36.4
Unknown	34	63.0	20	37.0	54	1.6
Total	2178	66.1	1119	33.9	3297	100.0

TABLE 16-CONTINUED

Data Requested	Full-Time		Spring 1987 Part-Time		Total	
	<u>N</u>	%	<u>N</u>	%	<u>N</u>	%
Gender						
Female	989	53.5	859	46.5	1848	63.5
Male	769	72.5	292	27.5	1061	36.4
Unknown	0	0.0	2	100.0	2	.1
Total	1758	60.4	1153	39.6	2911	100.0

Fall 1986 were Caucasian; and 76.9% in Spring 1987 were people of no color. Blacks at HCC constituted 2.5% of the total student body in Fall 1985; 2.5% in Spring 1986; 2.8% in Fall 1986; and 2.9% in Spring 1987. Hispanics represented 2.4% of the total student population in Fall 1985; 3.2% in Spring 1986; 3.9% in Fall 1986; and 4.4% in Spring 1987. In terms of the Asian students, they made up .3% of total student enrollment in Fall 1985; .3% in Spring 1986; .4% in Fall 1986; and .3% in Spring 1987.

Table 17 points out that 21.5% of the students were enrolled in the Associate in Arts degree program in Fall 1985; 21.1% in Spring 1986; 23.8% in Fall 1986; and 25.7% in Spring 1987. On the other hand, 76.9% of the students were enrolled in Associate in Science degree programs in Fall 1985; 76.5% in Spring 1986; 74.4% in Fall 1986; and 72.2% in Spring 1987. In regard to the residence of the students at HCC, 96.6% were in-state residents in the Fall 1985 as were 96.3% in Spring 1986; 99% in Fall 1986; and 96% in the Spring 1987. Table 18 reveals the program enrollment distribution figures. In the four semesters studied, 28.5% of the students were enrolled in transfer programs; 70% were in career programs; and 1.5% were enrolled in special programs. In Fall 1985, 26.2% were enrolled in transfer programs; 28% in Spring 1986; 28.9% in Fall 1986; and 31% in Spring 1987.

Dr. Raverta explained that HCC had raw data about student demographics for liberal arts majors; certificate ma-

TABLE 17

PROGRAM ENROLLMENT AND RESIDENCE DISTRIBUTION OF DAY STUDENTS
ENROLLED AT HOLYOKE COMMUNITY COLLEGE BY ACADEMIC SEMESTER

Data Requested	Fall 1985		Spring 1986	
	<u>N</u>	%	<u>N</u>	%
Program of Study				
Associate in Arts	700	21.5	607	21.1
Associate in Sciences	2500	76.9	2202	76.5
Associate in Applied Sciences	0	0.0	0	0.0
Special	53	1.6	69	2.4
Total	3253	100.0	2878	100.0

TABLE 17-CONTINUED

Data Requested	Fall 1986		Spring 1987	
	<u>N</u>	%	<u>N</u>	%
Program of Study				
Associate in Arts	783	23.8	748	25.7
Associate in Sciences	2453	74.4	2101	72.2
Associate in Applied Sciences	0	0.0	0	0.0
Special	61	1.8	62	2.1
Total	3297	100.0	2911	100.0

TABLE 17-CONTINUED

Data Requested	Fall 1985		Spring 1986	
	<u>N</u>	%	<u>N</u>	%
Residence				
In-state	3142	96.6	2770	96.3
Out-of-state	27	.8	21	.7
Other	81	2.5	87	3.0
Unknown	3	.1	0	0.0
Total	3253	100.0	2878	100.0

TABLE 17-CONTINUED

Data Requested	Fall 1986		Spring 1987	
	<u>N</u>	%	<u>N</u>	%
Residence				
In-state	3265	99.0	2795	96.0
Out-of-state	32	1.0	27	.9
Other	0	0.0	89	3.1
Unknown	0	0.0	0	0.0
Total	3297	100.0	2911	100.0

TABLE 18

PROGRAM ENROLLMENT DISTRIBUTION OF DAY STUDENTS ENROLLED AT
HOLYOKE COMMUNITY COLLEGE BY ACADEMIC SEMESTERS

Data Requested	Fall 1985		Spring 1986	
	<u>N</u>	%	<u>N</u>	%
Programs				
Transfer	851	26.2	806	28.0
Career	2349	72.2	2003	69.6
Special	53	1.6	69	2.4
Total	3253	100.0	2878	100.0
	Fall 1986		Spring 1987	
Transfer	954	28.9	902	31.0
Career	2343	71.1	1947	66.9
Special	0	0.0	62	2.1
Total	3297	100.0	2911	100.0

jors; Associate in Science majors; Associate in Applied Sciences majors; part-time students; transfer students; and Liberal Studies students. He added that HCC had not processed these data but could provide the researcher the raw data if she wanted to process the data herself. The researcher did not have the staff, facilities, finances, nor equipment to do so. She concentrated her study on the information she was given as presented in Tables 14 to 18.

Massachusetts Bay Community College

When the researcher met with President Roger Van Winkle (1987) of Massachusetts Bay Community College, she learned that her data requests were to be submitted to Dr. Gerald Bazer, Dean of Academic Affairs. After having submitted her requests to Dr. Bazer (1987), the researcher was informed that her request was very comprehensive in scope. Dr. Bazer pointed that MBCC was undergoing a change in its computer system and meeting the researcher's data request would be a major undertaking. In response to the researcher's comments that the Regents had been requesting such data since the Fall of 1984, Bazer commented that their submission was less intense. Bazer indicated that he would take the researcher's request under advisement [See Chapter 3]. The researcher did not receive the data as she requested.

Middlesex Community College

Middlesex Community College was another one of the community colleges surveyed. The researcher presented her sta-

tistical information data request to President James Houlihan (1987), who recommended that she speak with Dr. Carl Schilling, Dean of Academic Affairs. Schilling (1987), after reviewing the data request, informed the researcher that she had asked for more data than what the Registrar's Office requests. He indicated that only a portion of the information would be provided, since MCC was not in a position at that time to assign the responsibility of searching files and records for much of the material listed in her requests. Data were provided concerning program codes, minority figures, gender figures, age distribution, course enrollment summaries, and geographic distribution of all students enrolled in Fall 1985, Spring 1986, Fall 1986, and Spring 1987 semesters. Some of the variables were presented in raw data which the researcher, due to delimitations of time, access to computer facilities, staff, and funds, could not tabulate and calculate for these four semesters.

Table 19 presents the age distribution of all day students at MCC for the terms Fall 1985, Spring 1986, Fall 1986, and Spring 1987. The majority of all the students were twenty years of age and older. Forty-six and one half percent of the total student body enrolled in 1985 were younger than twenty year olds; 39% were nineteen years old or younger for Spring 1986; 44.6% represented the age group 15-19 in the Fall 1986 term; and 38.4% were less than twenty years of age in Spring 1987. Part-time students tend to be older than

TABLE 19

AGE DISTRIBUTION OF DAY STUDENTS ENROLLED AT
MIDDLESEX COMMUNITY COLLEGE BY ACADEMIC SEMESTER

Data Requested	Fall 1985				Total %
	<u>N</u>	Full-Time %	<u>N</u>	Part-Time %	
15-19	1018	90.1	112	9.9	46.5
20-24	624	78.2	174	21.8	32.9
25-29	94	59.1	65	40.9	6.6
30-34	54	53.5	47	46.5	4.2
35-39	36	44.4	45	55.6	3.3
40-44	21	38.9	33	61.1	2.2
45-49	18	51.4	17	48.6	1.4
60+	2	100.0	0	0.0	.1
Unknown	48	70.6	20	29.4	2.8
Total	1915	78.9	513	21.1	100.0

TABLE 19-CONTINUED

Data Requested	Spring 1986					
	<u>N</u>	Full-Time %	<u>N</u>	Part-Time %	<u>N</u>	Total %
15-19	812	91.2	78	8.8	890	39.0
20-24	705	77.9	200	22.1	905	39.6
25-29	90	52.0	83	48.0	173	7.6
30-34	54	47.4	60	52.6	114	5.0
35-39	34	39.1	53	60.9	87	3.8
40-44	17	35.4	31	64.6	48	2.1
45-49	12	36.4	21	63.6	33	1.5
60+	1	33.0	2	67.0	3	.1
Unknown	28	93.3	2	6.7	30	1.3
Total	1753	76.8	530	23.2	2283	100.0

TABLE 19-CONTINUED

Data Requested	Fall 1986				Total %
	<u>N</u>	Full-Time %	<u>N</u>	Part-Time %	
15-19	1078	93.2	79	6.8	1157 44.6
20-24	731	81.9	162	18.1	893 34.4
25-29	106	51.0	102	49.0	208 8.0
30-34	65	57.0	49	43.0	114 4.4
35-39	41	49.4	42	50.6	83 3.2
40-44	16	33.3	32	66.7	48 1.9
45-49	14	35.9	25	64.1	39 1.5
60+	1	33.0	2	67.0	3 .1
Unknown	35	71.4	14	28.6	49 1.9
Total	2087	80.5	507	19.5	2594 100.0

TABLE 19-CONTINUED

Data Requested	Spring 1987				Total	
	<u>N</u>	Full-Time %	<u>N</u>	Part-Time %	<u>N</u>	%
15-19	829	89.1	101	10.8	930	38.4
20-24	758	76.1	238	23.9	996	41.1
25-29	107	57.0	81	43.0	188	7.8
30-34	47	43.9	60	56.1	107	4.4
35-39	35	39.8	53	60.2	88	3.6
40-44	22	50.0	22	50.0	44	1.8
45-49	15	31.9	32	68.1	47	1.9
60+	1	25.0	3	75.0	4	.2
Unknown	11	61.1	7	38.9	18	.8
Total	1825	75.4	597	24.6	2422	100.0

