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ABSTRACT

Based on a method to estimate undergraduate enrollments using age and residency information, undergraduate projections to 1990 for Connecticut colleges and universities are presented. Implications of the projections for competition among institutions and postbaccalaureate enrollments are also addressed. The projections show little overall decline in total undergraduate headcount enrollment to 1985. If students of the same age and from the same residence areas were to continue to attend the same types of institutions at the same rates as they did in fall 1980, full-time equivalent (FTE) enrollment would fall about 3 percent by 1985. By 1990, the headcount decline would be 6 percent, with an FTE decline of about 11 percent. In addition to headcount and FTE enrollment projections, separate estimates were calculated for full-time and part-time students. No specific projections were made for postbaccalaureate education; however, changes in enrollment at this level will modify overall enrollment levels in institutions offering graduate education. In 1980, 31 percent of all undergraduates in Connecticut institutions were over 24 years old. It appears that adult learners are currently participating at rates that can be expected to compensate substantially for the declining numbers of younger students. The 25- to 34-year-old age group will increase numerically during the 1980s as the population peak moves along, and by 1990, 40 percent of undergraduate students in Connecticut institutions of higher education could be over 24. Additional factors that are likely to influence higher education enrollment are identified, although they are not part of the projection methodology. Assumptions underlying the methodology and the procedures of the methodology are described. (SW)

BHE reports

R-4-81

BOARD OF HIGHER EDUCATION
61 WOODLAND STREET, HARTFORD, CT 06105

September 1981

DEMOGRAPHIC CHANGES AND THEIR IMPACT ON HIGHER EDUCATION ENROLLMENT IN CONNECTICUT

A report presented to the Board of Higher Education
September 22, 1981

This project was supported, in part, by a grant from the National Center for Education Statistics (G008006650).

SUMMARY

The Board of Higher Education recently completed a study that indicates a more optimistic view of undergraduate higher education enrollment for the 1980s than previously has been forecast.

Using data supplied by Connecticut's public and independent colleges and universities on the age and residence of their undergraduate students and projections of the state's population to 1990, the Board has developed projections which show little overall decline in total undergraduate headcount enrollment to 1985. No projections are made for graduate enrollment. The study finds that if students of the same age and from the same residence areas were to continue to attend the same types of institutions at the same rates as they did in fall 1980, full-time-equivalent enrollment would fall approximately 3 percent by 1985. By 1990, the headcount decline would be 6 percent, with an FTE decline of approximately 11 percent.

Previous projections by the Board and other agencies have depended heavily on the demographics of high school graduates in the 1980s, which show a 34 percent decline by 1990. However, the availability of detailed age and residency data for fall 1980 on undergraduate students has allowed these characteristics to be taken into account for the first time in the development of projections for the public and independent sectors of higher education in Connecticut. In 1980, 31 percent of all undergraduates in Connecticut institutions of higher education were over 24 years of age, a larger proportion than had been anticipated. Therefore, it appears that adult learners are currently participating at rates that can be expected to compensate substantially for the declining numbers of younger students. The 25- to 34-year-old age group will increase numerically during the 1980s as the population peak moves along, and by 1990, 40 percent of undergraduate students in Connecticut institutions of higher education could be over 24.

These projections are based on demographic data only and therefore assume that all other factors will remain constant. However, policies adopted by the federal government, the state and the individual institutions can, and indeed will, have a critical effect on actual enrollments. This report lists some of those policy initiatives and other factors such as social and economic change (Table 1) but does not attempt to predict the extent of their influence on future enrollments.

The report uses categories of institutional vulnerability developed by the Carnegie Council for Policy Studies in Higher Education as a frame of reference for interpreting the Board of Higher Education's enrollment projections by type of institution. The independent colleges and universities appear to be somewhat more susceptible to demographic change than the public institutions because they enroll a larger proportion of younger students. However, in applying the Carnegie concept of vulnerability to Connecticut institutions, some types of institutions are more likely than others to be able to moderate, and in some cases even to overcome, projected enrollment declines. These less-vulnerable institutions which include the highly selective liberal arts institutions (in Connecticut these are Connecticut College, Trinity College and Wesleyan University) and research universities (Yale University and the University of Connecticut) have more institutional strategies and options available to them to increase their share of the declining pool of students. Their success, however, could come at the expense of vulnerable institutions. Nationally, these institutions have been identified as state colleges and those independent institutions which are less selective (in Connecticut the State Colleges, four-year regional independent institutions and two-year independent institutions). In turn, however, some of these vulnerable institutions may be able to enroll even more adult learners.

The Regional Community Colleges, because of the extent of their current enrollment of adult learners, are categorized as less vulnerable to demographic change. The State Technical Colleges also fall into this category because of the expectation that there will continue to be high demand for their specialized programs.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

LIST OF TABLES

INTRODUCTION

The Board of Higher Education has developed undergraduate enrollment projections to 1990 for institutions of higher education in the State of Connecticut. In fall 1980, age and residency information was collected for the first time on all students in Connecticut institutions of higher education. This allowed for detailed analysis of the impact of residential area and the changing age distribution of Connecticut's population on higher education enrollment. Separate projections were calculated for full-time and part-time students and both headcount and full-time-equivalent enrollment projections were developed.[1] No specific projections are made for postbaccalaureate education in light of the mixed trends in graduate enrollment. However, changes in enrollment at this level will modify overall enrollment levels in institutions offering graduate education.

Population demographics are one of the major factors influencing future enrollment patterns. Participation is also affected by changing social and economic conditions and policy and program initiatives at the institutional, state and federal levels. Table 1 lists some of these additional factors and their likely influence on higher education enrollment. The enrollment projections presented in this report do not take account of these additional factors. Therefore, they should not be treated as predictions of future levels of enrollment, but as indicators of what would happen in Connecticut if students of the same age and from the same residential areas were to continue to attend the same types of institutions at the same rates as they did in fall 1980.

While projecting future enrollments is an endeavor fraught with uncertainty, the declining number of college-age youth in Connecticut during the 1980s, together with the growth in the number of persons over 24 years of age in the state, are immutable facts that will affect higher education. In addition, decisions made in one place in the overall system will have an impact on institutions in another part of that system. This report provides a backdrop against which judgments about the future can be cast, trends measured, and planning initiatives fostered and evaluated.

Aggregate undergraduate projections are presented in the next section, together with a discussion of their implications for competition among institutions. Postbaccalaureate enrollments are then briefly addressed. Appendix I provides a description of the methodology used to estimate undergraduate enrollments and the assumptions underlying the methodology.

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[1] A full-time equivalent (FTE) enrollment is defined as 15 credit hours of study. Appendix I describes the method employed to convert headcount projections to FTE projections.

TABLE 1

FACTORS LIKELY TO INFLUENCE STUDENT PARTICIPATION RATES IN CONNECTICUT HIGHER EDUCATION

	Change in Participation Rate
A. Factors under the influence of higher education community	
Merging of institutions	?
Reduced geographic distribution of institutions	–
Enrollment ceilings, by institution	–
Increased state financial aid for in-state students	+
Increased recruitment activities	+
Lower admission criteria	+
More effective programs to retain students	+
New programs	+
Location of programs near population centers	+
Increased Connecticut public in-state tuition	–
Increased Connecticut public out-of-state tuition	–
Increased private tuition	– Priv/+ Pub
Increased costs of out-of-state education	+
B. Factors beyond the influence of higher education community	
i. Characteristics of Labor Market	
Increased demand for graduates in technical fields	+
Increase in business and industry as providers of education	–
High unemployment	+
ii. Characteristics of Prospective Students	
Increased level of achievement of high school graduates	+
Decreased high school graduation rate	–
Increased rate of participation of high school graduates in higher education	+
Decreased access to financial aid and/or loans	–
Reinstatement of armed services draft without college exemption	–
Decreased participation of women over 24 years of age as "catch-up" phenomenon peaks	–
iii. State funding constraints eased	+

See assumption No. 6, p. 20 and Carol Frances, College Enrollment Trends: Testing the Conventional Wisdom Against the Facts. (American Council of Education, Washington, D.C. .1980). Table 12E.

RESULTS AND DISCUSSION

Little overall decline in headcount enrollment is anticipated by 1985, with full-time-equivalent enrollment dropping by 3 percent. By 1990, the decline in enrollment is expected to be more severe, with a headcount drop of about 6 percent from 1980 and an FTE decline of almost 11 percent (Figure 1, Table 2). It is likely the independent sector will be more susceptible to decline than the public sector, since the latter currently provides more services to adult learners, a group that will be growing in numbers during the 1980s.

The results present a more optimistic picture of higher education undergraduate enrollments in Connecticut during the 1980s than has previously been forecast. Earlier statements concerning future enrollment decline were based upon the substantial decline that will occur in the number of high school graduates. However, comprehensive age data were collected for the first time in the fall 1980. They revealed that in 1980, 31 percent of all undergraduates in Connecticut institutions of higher education were over 24 years of age (Figure 2), a larger proportion than had been anticipated. The 25- to 34-year-old-age group will increase numerically during the 1980s as the population peak moves along. If current participation rates continue, it appears that adult learners can be expected to continue to moderate the decline in the number of high school graduates. As a result, by 1990, it is likely that 40 percent of undergraduate students in Connecticut's institutions of higher education will be in the non-traditional (over 24) age group (Figure 2).

Although the analyses presented in the report are based on demographic changes that are projected to occur between 1980 and 1990, the year 1990 does not represent a point of stability. The size of the traditional college-age population is expected to decline to 1994, and the size of the 25- to 34-year-old age group, on whom higher education is becoming more dependent, also will be decreasing after 1990. When the Department of Health Services makes available updated population projections based on the 1980 U.S. Census, the Board of Higher Education will revise its own estimates and extend them to the year 2000.[2]

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[2]See Appendix II for further details of the population projections upon which the results presented in this report are based.

PROJECTIONS BY TYPE OF INSTITUTION

The statewide headcount and full-time-equivalent enrollment decline will not be distributed equally among types of institutions.[3] Some institutions are more dependent on traditional-age students, whose numbers are declining. The demographically-generated projections of the Board of Higher Education reflect this relationship and show greater declines for these types of institutions than for institutions which also are serving adult learners, whose numbers will be increasing during the 1980s (Table 3). However, not all institutions are completely at the mercy of demographic trends. Some institutions currently have many more qualified applicants than they can accept. Even if the size of the applicant pool decreases at these institutions, there still could be a sufficient number of qualified applicants to maintain current enrollment levels or substantially minimize any enrollment decline. The impact of a declining pool of applicants also could be minimized by relaxing admissions criteria. However, it should be recognized that all institutions, even the most elite, draw students from common and finite applicant populations. If one institution intensifies its recruitment efforts or changes its admissions policies in an attempt to stabilize enrollment, its stability will come at the expense of the other institutions which also draw from the common applicant population. This dimension of competition has not been built into the Board of Higher Education's enrollment projections but must be taken into consideration when interpreting the results.

The Carnegie Council for Policy Studies in Higher Education provides a useful framework for anticipating the impact that changes in demographic patterns may have on institutions of higher education. Using its own institutional classification system, the Council identified some types of institutions as "less-vulnerable" to demographic trends, some as "vulnerable" and a third group as "more-vulnerable" to these trends.[4,5]

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[3] Although enrollment projections were developed on an institution-by-institution basis, their reliability increases with higher levels of aggregation. The decision about which institution to attend is more likely to change than is the decision whether to attend at all. The Board of Higher Education does not plan to publish institution-specific projections because of their low reliability. Results aggregated by type of institution are presented but the reader is cautioned to interpret them within the framework described in the text.

[4] Carnegie Council on Policy Studies in Higher Education. Three Thousand Futures. The Next Twenty Years of Higher Education. Jossey-Bass Inc., San Francisco, 1980.

[5] Carnegie Council on Policy Studies in Higher Education. A Classification of Institutions of Higher Education. Revised Edition, 1976.

Less-Vulnerable Institutions

The Carnegie Council includes in its "less-vulnerable" category research universities and the highly selective four-year Liberal Arts Colleges I.[6] According to the Carnegie Classification, in Connecticut these are the University of Connecticut and the four-year national independent institutions.[7] The Council singles out these types of institutions for a number of reasons. Their research and service functions will continue to be an attractive resource to undergraduate aspirants. In addition, they generally have low acceptance:applicant ratios which can be raised, selective admission standards which can be lowered, and tend to recruit on a regional or national basis. The Carnegie Council report notes, however, that among the research universities and selective liberal arts colleges

> The best may become comparatively better and the not-quite the best may become comparatively worse in the average academic precollegiate quality of their students, as the former fully maintain the selectivity of their students while the latter must make some concessions because the already small size of the pool of the ablest (and also well-to-do) students will have declined.[8]

This suggests that the strategies identified to moderate and even overcome enrollment decline will have different outcomes for each of the five Connecticut institutions in this category, depending on their present selectivity and reliance on in-state and regional students.[9]

The Board of Higher Education's straight line, demographically-generated projections show a 7 percent headcount and FTE decline for the four-year national independent institutions to 1985, dropping to a 19 percent decline by 1990. For the University of Connecticut, these numbers are 5 percent and 16 percent, respectively (Tables 3 and 4). The Carnegie Council suggests, however, that this group of institutions has the most flexibility to respond to changing demographic trends by modifying existing recruitment and admission practices. Those institutions in this group that are the most highly selective will be able to fully overcome these enrollment declines. Other institutions in the group will be able to moderate projected enrollment declines at the expense of some selectivity.

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[6] See A Classification of Institutions for definitions of the Carngegie typology of institutions.

[7] A four-year independent institution is a "national" institution if more than 50 percent of its undergraduates are from out-of-state and total enrollment exceeds 300 students (i.e., Connecticut College, Trinity College, Wesleyan University and Yale University). "Regional" institutions are all four-year independent institutions, except those institutions defined as national institutions.

[8] Three Thousand Futures, p. 56.

[9] See The College Handbook, 1980-81, XVII Edition, (College Entrance Examination Board, New York, 1980) for institutional freshman test scores and admission:applicant ratios. See Table 5 (p. 24) for proportion of students who are Connecticut residents.

The Carnegie Council report also identifies two-year public institutions as less-vulnerable to demographic changes during the 1980s. This optimism is based on the attractiveness of these institutions to adult learners. But the projection methodology used by the Board of Higher Education takes into account this characteristic of the two-year institutions. To the extent that other institutions begin to compete for the adult learner, the projections for the Regional Community Colleges may be optimistic. The Board of Higher Education projections show the Regional Community Colleges continuing to increase headcount enrollment to 1985 (+3% from 1980) with no change in FTE enrollment. By 1990, headcount enrollments could be expected to drop just 1 percent from 1985, with an overall increase from 1980 of 2 percent. FTE enrollments are projected to decline 1 percent between 1980 and 1990[10] (Tables 3 and 4).

The State Technical Colleges are somewhat more dependent on the traditional-age student than the Regional Community Colleges, and Board of Higher Education projections show a stable headcount enrollment to 1985, with an FTE decline of 2 percent. By 1990, projections indicate a 4 percent headcount decline and 10 percent FTE decline (Tables 3 and 4). These projections are likely to overestimate the enrollment decline in these institutions because of the current unmet demand for places in these institutions. It also should be noted that Greater New Haven State Technical College is a new institution which is several years away from maturity. With its potential for program development, this institution could reach a total enrollment comparable to the other four State Technical Colleges. This growth potential alone could more than offset the projected decline for this group of institutions.

Vulnerable Institutions

The Carnegie Council identified as vulnerable the public and independent Comprehensive Colleges and Universities. In Connecticut these are the State Colleges and most of the four-year regional independent institutions.[11] The Council notes that these types of institutions are generally more tied to their localities and/or more restricted in relaxing admissions criteria than the less-vulnerable four-year institutions. Again, there is a degree of variation within this category of institutions that will influence the flexibility of individual institutions to moderate projected enrollment declines.[12]

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[10] See Assumption No. 5, p. 20.

[11] See A Classification of Institutions for definitions.

[12] See The College Handbook, 1980-81, XVII Edition, College Entrance Examination Board, New York, 1980 for institutional freshman test scores and admission:applicant ratios. See Table 5 (p. 24) for proportion of students who are Connecticut residents.

The Board of Higher Education projections for the State Colleges show a 1 percent headcount and 2 percent FTE decline by 1985, dropping to 7 percent and 10 percent, respectively by 1990. For the four-year regional independent institutions, the changes are a 1 percent increase in headcount with a 2 percent decline in FTE by 1985, and declines of 5 percent headcount and 11 percent FTE by 1990 (Tables 3 and 4). In general, these two types of institutions have fewer strategies available to them than the more selective and/or research-oriented institutions to overcome demographically-driven enrollment futures. Indeed, if more selective (less-vulnerable) institutions relax admission criteria, some are likely to draw students from these vulnerable institutions. This would lead to enrollment declines beyond those projected on demographic grounds alone for these types of institutions. On the other hand, aggressive recruitment of the adult learner could moderate projected declines, perhaps at the expense of the Regional Community Colleges.

The Carnegie Classification identifies some four-year independent institutions as Liberal Arts College II.[13] This category of institutions is less selective than Liberal Arts Colleges I, while offering traditional curricula primarily at the undergraduate level. The Carnegie Council suggests that these institutions are more vulnerable to enrollment decline. In Connecticut, however, the distinction between Liberal Arts Colleges II and Comprehensive Colleges and Universities is less distinct. Therefore, the Board of Higher Education did not separate the four-year regional independent institutions into these two additional institutional types.

Projections for the two-year independent institutions show little headcount change (-1% in 1985, -2% in 1990) with FTE declines of 4 percent and 10 percent (Tables 3 and 4). It is difficult to anticipate whether these projections will underestimate or overestimate actual future enrollments. The small number of institutions in this category make these projections particularly unreliable.

[13] See A Classification of Institutions for definitions.

POSTGRADUATE EDUCATION

Enrollment at the graduate level historically has not been tightly related to demographic changes. The Carnegie Council notes that

> graduate education has become a volatile element within total enrollments.... Graduate education has become the plaything of the labor market, of changing public policies supporting graduate fellowships, of shifting social and intellectual concerns.[14]

Graduate enrollment in Connecticut has increased 5.1 percent during the period 1976-1980 due almost entirely to increased participation of women.[15] Growth in graduate enrollments has not been evenly distributed among types of institutions in Connecticut. The regional independent institutions have experienced a 19 percent growth in enrollment, while graduate enrollment in the State Colleges has dropped 14 percent. Among the explanations for the shift of graduate students from the State Colleges to the regional independent institutions is the declining interest in education as a field of graduate study and the early responsiveness of the independent sector to new program demands.[16] To the extent that the State Colleges develop programs in other areas, and fee structures are modified for part-time students, the shift could slow or reverse during the decade.

In light of these mixed trends in graduate enrollment, the Board of Higher Education chose to adopt the strategy of the Carnegie Council in the development of enrollment projections. They "... make no specific projections about graduate enrollments, only noting that (they) expect them, over the two decades as a whole, to rise somewhat compared to whatever may happen to undergraduate enrollment."[17] To the extent that internal redistribution continues, however, the regional independent institutions can be expected to experience continued growth at the expense of the State Colleges.

The demand for first-professional programs continues to exceed the supply of places. In Connecticut, enrollments in professional programs have increased 26.3 percent between 1976 and 1980, reflecting the introduction of a new law school at the University of Bridgeport, and some expansion of places available in existing programs. The Board of Higher Education projects a stable enrollment of students in first-professional programs.

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[14] Three Thousand Futures, p. 50.

[15] J. Presley, "Enrollment of Women in Connecticut Institutions of Higher Education." Research Report No. 3-81, (BHE, Hartford, CT, 1981).

[16] P. Rickes, "Degrees Conferred by Connecticut Institutions of Higher Education, 1970-80." Research Report No. 5-81, (BHE, Hartford, CT, 1981).

[17] Three Thousand Futures, p. 50.

FIGURE 1

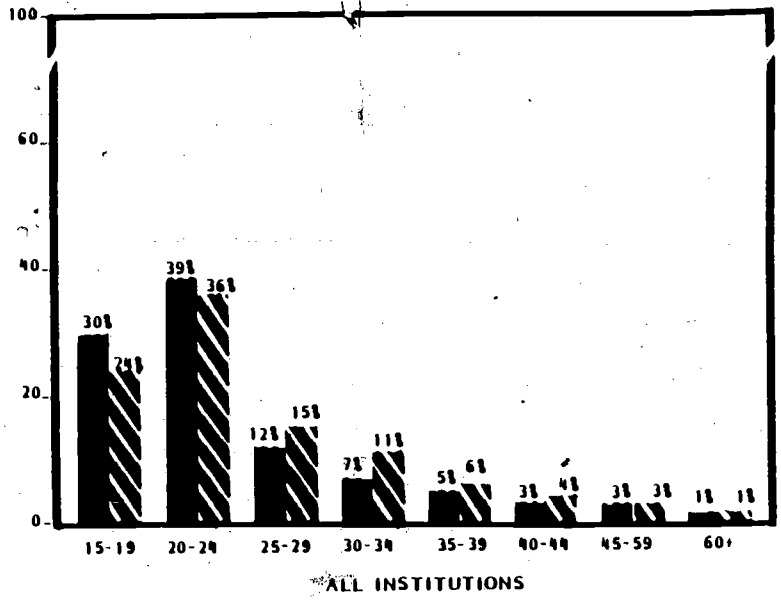
CONNECTICUT BOARD OF HIGHER EDUCATION
UNDERGRADUATE ENROLLMENT PROJECTIONS BY SECTOR

	All Institutions		Independent Institutions		State Institutions	
From 1980 to 1985	Headcount Change	FTE Change	Headcount Change	FTE Change	Headcount Change	FTE Change
Percent Change	No change	-3%	-1%	-4%	No change	-2%
Numerical Change	-600	-2,500	-500	-1,300	-100	-1,200
From 1980 to 1990	Headcount Change	FTE Change	Headcount Change	FTE Change	Headcount Change	FTE Change
Percent Change	-6%	-11%	-9%	-13%	-5%	-9%
Numerical Change	-7,700	-9,700	-3,900	-4,700	-3,800	-5,000

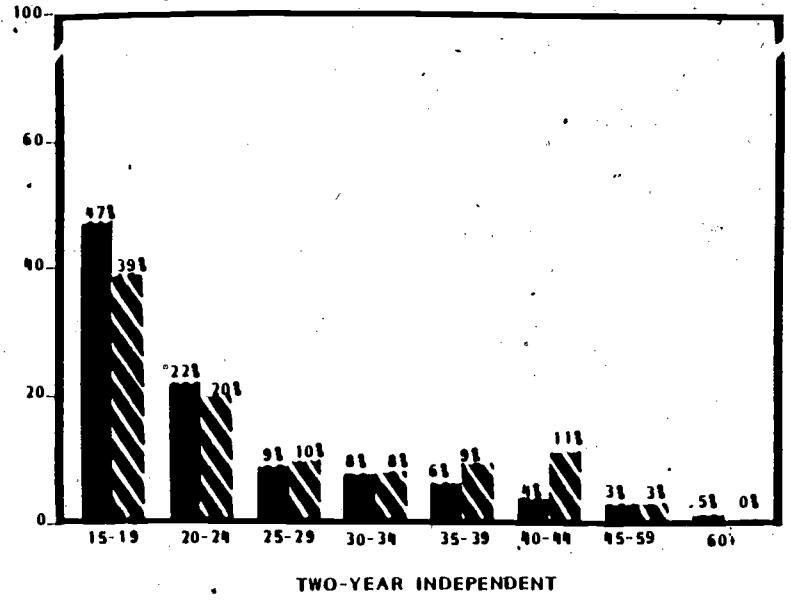
FIGURE 2

AGE DISTRIBUTION OF UNDERGRADUATES IN CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION

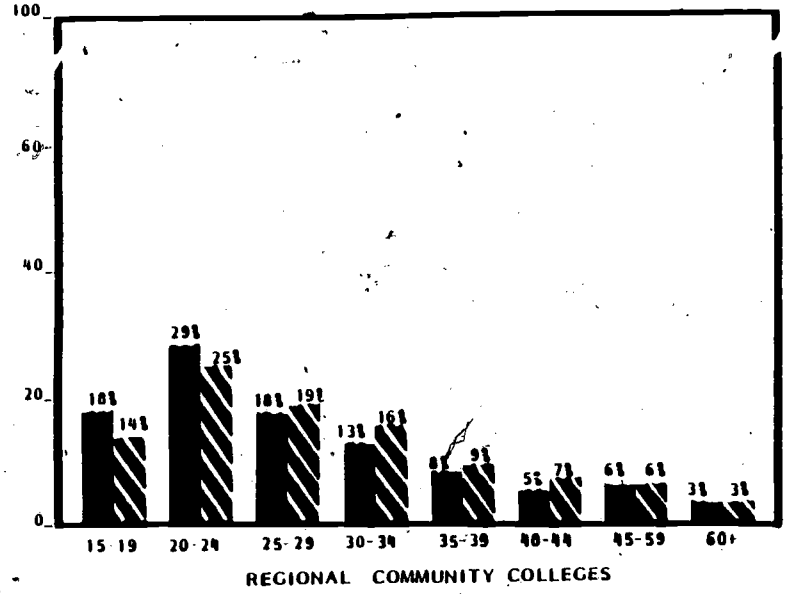
Fall 1980 and Estimated Fall 1990



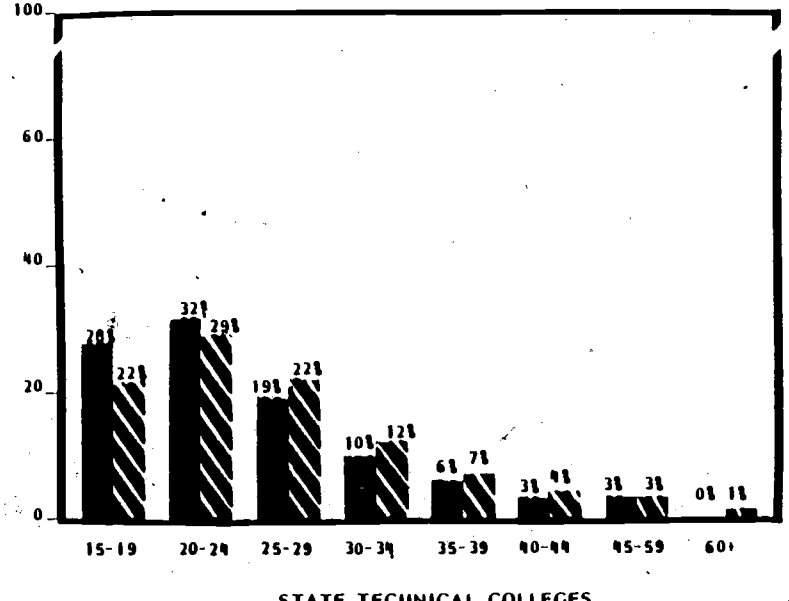
ALL INSTITUTIONS



TWO-YEAR INDEPENDENT



REGIONAL COMMUNITY COLLEGES



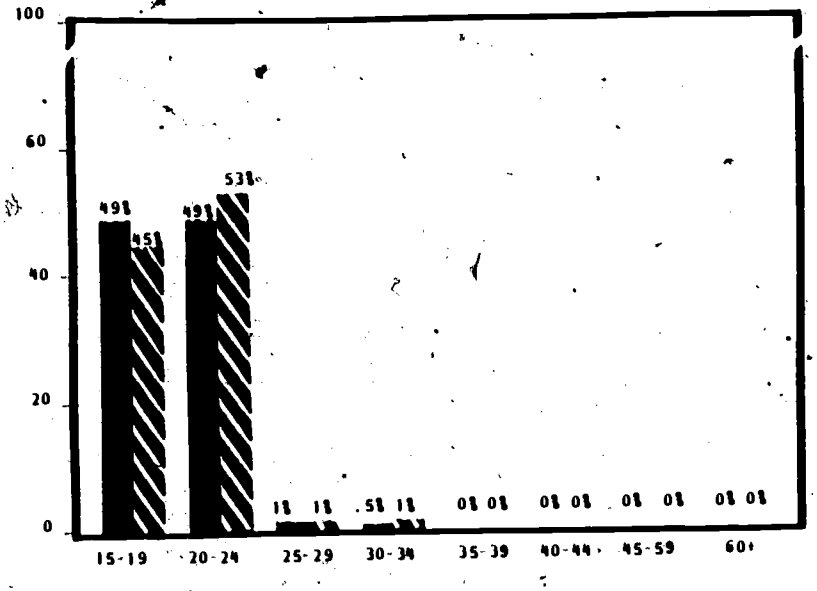
STATE TECHNICAL COLLEGES

1980 1990

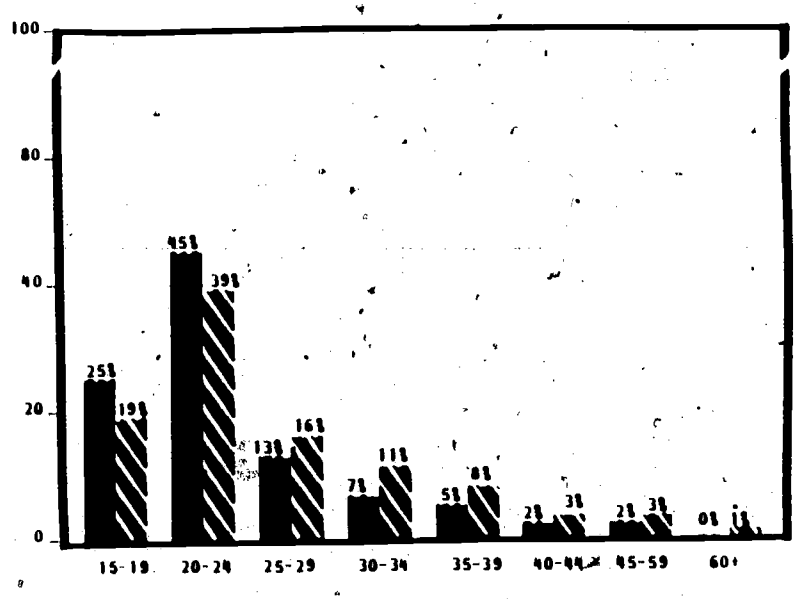
FIGURE 2, Continued

AGE DISTRIBUTION OF UNDERGRADUATES IN CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION

Fall 1980 and Estimated Fall 1990



FOUR-YEAR NATIONAL INDEPENDENT



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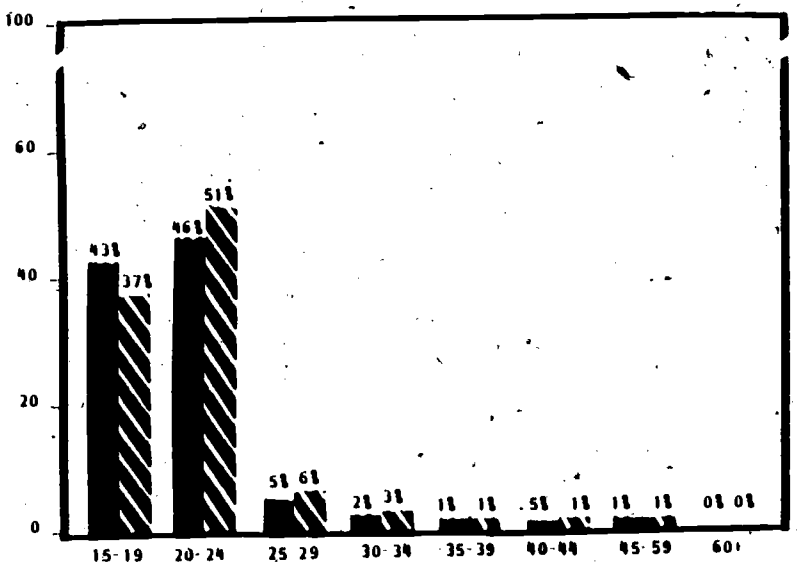
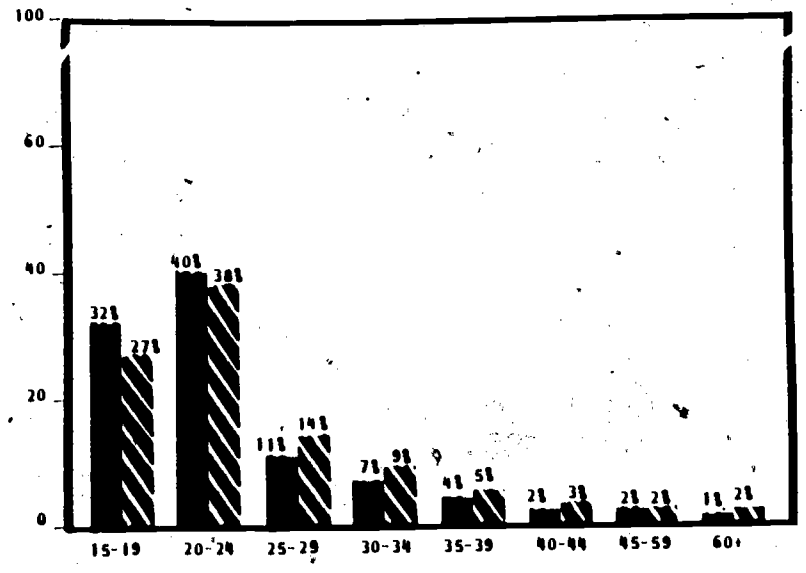


UNIVERSITY OF CONNECTICUT



STATE COLLEGES

1980 1990

TABLE 2

CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION
UNDERGRADUATE ENROLLMENT PROJECTIONS BY SECTOR

All Institutions, Undergraduates*

HEADCOUNT	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	52,341	55,419	55,553
Total Full-time	75,122	71,452	64,209
Total Headcount	127,463	126,871	119,762
Total FTE	92,095	89,537	82,374
Change in headcount from 1980		- 0.5%	- 6.0%
Change in FTE from 1980		- 2.6%	-10.6%

Public Institutions

HEADCOUNT	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	37,705	39,537	39,695
Total Full-time	44,931	43,025	39,110
Total Headcount	82,636	82,562	78,805
Total FTE	57,294	56,075	52,240
Change in headcount from 1980		- 0.1%	- 4.6%
Change in FTE from 1980		- 2.1%	- 8.8%

Independent Institutions*

HEADCOUNT	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	14,636	15,882	15,858
Total Full-time	30,191	28,427	25,099
Total Headcount	44,827	44,309	40,957
Total FTE	34,801	33,462	30,134
Change in headcount from 1980		- 1.2%	- 8.6%
Change in FTE from 1980		- 3.8%	-13.4%

*Excludes institutions primarily for religious training and proprietary institutions (Briarwood College, Paier School of Art, Inc., and Katharine Gibbs School, Inc.).

TABLE 3

SUMMARY

CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION
UNDERGRADUATE ENROLLMENT PROJECTIONS
BY TYPE OF INSTITUTION

Type of Institution	Change in undergraduate headcount from 1980 to 1985	Change in undergraduate FTE from 1980 to 1985	Change in undergraduate headcount from 1980 to 1990	Change in undergraduate FTE from 1980 to 1990	Possible variations in projected decline
Four-Year National[a] Independent	-770 (-7%)	-750 (-7%)	-2,140 (-19%)	-2,000 (-19%)	Smaller. Demand currently exceeds supply of places. Most selective can overcome decline completely.
University of Connecticut	-780 (-5%)	-700 (-5%)	-2,400 (-16%)	-2,300 (-16%)	Smaller. Demand currently exceeds supply but to lesser extent than "national" institutions.
Four-Year Regional[b] Independent	+260 (+1%)	-550 (-2%)	-700 (-5%)	-2,500 (-11%)	Unpredictable. Students may shift to currently more selective institutions, leading to a larger decline. May recruit more adult learners leading to smaller decline.
State Colleges[c]	-320 (-1%)	-500 (-2%)	-1,760 (-7%)	-2,100 (-10%)	Larger. Students may shift to more selective institutions.
Two-Year Independent[d]	-10 (-1%)	-30 (-4%)	-30 (-2%)	-70 (-10%)	Unpredictable.
Regional Community[e] Colleges	+1,000 (+3%)	+100 (no change)	+660 (+2%)	-250 (-1%)	Larger. May lose students to increased competition for adult learner.
State Technical[f] Colleges	+10) (no change)	-150 (-2%)	-300 (-4%)	-500 (-10%)	Smaller. Demand currently exceeds supply of places.

[a] Four-Year National Independent
Connecticut College
Trinity College
Wesleyan University
Yale University

[b] Four-Year Regional Independent
Albertus Magnus College
Bridgeport Engineering Institute
Fairfield University
Post College
Quinnipiac College
Sacred Heart University
St. Joseph College
University of Bridgeport
University of Hartford
University of New Haven

[c] State Colleges
Central Connecticut
Eastern Connecticut
Southern Connecticut
Western Connecticut

[d] Two-Year Independent
Hartford College for Women
Mitchell College

[e] Regional Community Colleges
Asnuntuck
Greater Hartford
Housatonic
Manchester
Mattatuck
Middlesex
Mohegan
Northwestern Connecticut
Norwalk
Quinebaug Valley
South Central
Tunxis

[f] State Technical Colleges
Greater New Haven
Hartford
Norwalk
Thames Valley
Waterbury

TABLE 4

CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION
UNDERGRADUATE ENROLLMENT PROJECTIONS
BY TYPE OF INSTITUTION

Note: Refer to the text for interpretation of these data.

4-YEAR NATIONAL INDEPENDENT*	Actual 1980	Estimated 1985	Estimated 1990
Total Full-time	11,036	10,260	8,923
Total Headcount	11,425	10,655	9,285
Total FTE	11,183	10,428	9,086
Change in headcount from 1980		- 6.7%	-18.7%
Change in FTE from 1980		- 6.7%	-18.7%

4-YEAR REGIONAL INDEPENDENT**	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	13,737	14,941	14,913
Total Full-time	18,517	17,574	15,639
Total Headcount	32,254	32,515	30,552
Total FTE	22,806	22,255	20,313
Change in headcount from 1980		+0.8%	- 5.3%
Change in FTE from 1980		- 2.4%	-10.9%

2-YEAR REGIONAL INDEPENDENT	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	510	546	583
Total Full-time	638	593	537
Total Headcount	1,148	1,139	1,120
Total FTE	812	779	735
Change in headcount from 1980		- 0.8%	- 2.4%
Change in FTE from 1980		- 4.1%	- 9.5%

*Four-year "national" institutions consist of Connecticut College, Trinity College, Wesleyan University and Yale University.
**Excludes institutions primarily for religious training and proprietary institutions.

TABLE 4, Continued

CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION
UNDERGRADUATE ENROLLMENT PROJECTIONS
BY TYPE OF INSTITUTION

Note: Refer to the text for interpretation of these data.

UNIVERSITY OF CONNECTICUT	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	1,902	1,892	1,835
Total Full-time	13,539	12,765	11,211
Total Headcount	15,441	14,657	13,046
Total FTE	14,386	13,698	12,096
Change in headcount from 1980		- 5.1%	-15.5%
Change in FTE from 1980		- 4.8%	-15.9%

STATE COLLEGES	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	7,280	7,708	7,818
Total Full-time	17,973	17,221	15,670
Total Headcount	25,253	24,929	23,488
Total FTE	20,540	20,048	18,526
Change in headcount from 1980		- 1.3%	- 7.0%
Change in FTE from 1980		- 2.4%	- 9.8%

REGIONAL COMMUNITY COLLEGES	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	23,854	25,073	25,232
Total Full-time	10,228	10,032	9,510
Total Headcount	34,082	35,105	34,742
Total FTE	17,152	17,243	16,910
Change in headcount from 1980		+ 3.0%	- 1.9%
Change in FTE from 1980		+ 0.5%	- 1.4%

STATE TECHNICAL COLLEGES	Actual 1980	Estimated 1985	Estimated 1990
Total Part-time	4,669	4,864	4,810
Total Full-time	3,191	3,007	2,719
Total Headcount	7,860	7,871	7,529
Total FTE	5,216	5,086	4,708
Change in headcount from 1980		- 0.1%	- 4.2%
Change in FTE from 1980		- 2.5%	- 9.7%

APPENDIX I

METHODOLOGY

An age-specific participation ratio method was used to estimate enrollments for undergraduate students by full-time and part-time status for 1985 and 1990.[18]

Figure 3 illustrates the steps and data that were used. Table 5 and provides supplementary data on the residency of undergraduate students in Connecticut in fall 1980, by type of institution. One map was developed for each institution, based on the residency distribution of part-time students as reported by institutions on BHE Residency Survey, 1980. Beyond this point, however, separate calculations were made for full-time and part-time students, by age. A detailed description of the procedures follows.

1. Using institutionally reported residency data (BHE Residency Survey, fall 1980), the distribution of part-time students was plotted by town for the state of Connecticut, as a reflection of an institution's commuting area. Three regions were identified for each institution, the town from which the largest number of students came (heart); a surrounding core area which, together with the heart town supplied approximately 85 percent of an institution's part-time undergraduate students; and the balance-of-state.[19] (Figure 4)

2. Using state population estimates for 1980, 1985 and 1990 (see Appendix II, for details of the methodology used to develop these estimates), projected population profiles of the heart town, the balance of the core area, and the balance-of-state, were calculated in each of eight age categories (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-59, 60+).

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[18] State population projections, which form a major component of the data on which the present calculations were made, are currently based on 1970 U.S. Census data. (See Appendix II for further details). State projections of the traditional college-age population in 1995 are based on an estimate birth rate, rather than actual census counts. This makes their accuracy somewhat more suspect than projections for the older age groups in that year. We have chosen not to extend our current projections to 1995 but to wait until revised projections, based on the 1980 Census data, are available. At that time, the Board of Higher Education will also revise its enrollment projections, and extend them to the year 2000.

[19] For the University of Connecticut, and the national institutions, no regional breakdown was made. They draw more evenly from across the state.

3. Using the boundaries developed in 1. above, the proportion of students coming from the heart, core, balance-of-state and out-of-state areas was calculated separately for full-time and part-time students. These ratios were applied to the age distribution of students, as supplied by the institutions on BHE Age Survey, fall 1980. Suppose, for example, that 50 percent of an institution's part-time students were from the heart area, an additional 30 percent from the core area, and 20 percent from the balance-of-state. If there were 200 15- to 19-year-old part-time students at the institution, then it was assumed that 100 of these came from the heart area, 60 from the core and 40 from the balance-of-state. This method results in an estimate of the number of students in each age group coming from each residency category.

4. These participation counts by age and region were divided by the appropriate 1980 population estimate, as calculated in 2. above. The result is a 1980 estimated participation ratio for individual age groups by residency category and attendance status.

5. These participation ratios were then applied to the population profiles for 1985 and 1990 (2 above) to obtain an enrollment projection by age, residency category and attendance status.

6. Out-of-state enrollments were then estimated as a constant proportion of total undergraduate enrollments.

7. By adding the age-specific projections for full-time and part-time enrollments, plus estimates of out-of-state enrollments, a total undergraduate enrollment projection was obtained for each institution.

8. Projected headcount enrollments were converted to full-time equivalent enrollments by applying the institution-specific average 1980 part-time credit-hour load of undergraduate students to part-time projections, and the average 1980 full-time credit-hour load to full-time projections.

Assumptions Made in BHE Enrollment Methodology

1. Current distribution of students among institutions represents equilibrium in student demand. The model does not take account of the differential drawing power of institutions. Some institutions are highly selective (Yale University, for example, admits about 24 percent of its applicants), while the majority are essentially open-admission institutions. The most selective institutions will be able to moderate demographically-generated projections of enrollment decline by admitting more of their applicants. This may or may not mean a decline in selectivity, depending upon the characteristics of current nonadmittees, and changes in student self-selection at the application stage. The projections offered for the four national independent institutions are most prejudiced by assumption No. 1. The most selective of these will probably maintain current levels of enrollment with little change in selectivity.

2. Age distribution is even across Connecticut towns by attendance status (part-time, full-time). Due to a lack of individual student data, it was necessary to assume that age distribution across Connecticut towns by attendance status is constant for each institution. If there are differences in the tendency of people in a particular age group, by town, to attend a specific institution of higher education, these differences are not reflected in the projected enrollments.

3. The proportion of out-of-state students will remain constant through the projection period (1990). Connecticut has historically been a net exporter of students.[20] Since 1963 the annual pattern of out-migration of students has been between 32-39 percent despite changes in economic conditions, access to financial aid and changing participation rates. Of the small percentage of out-of-state students attending Connecticut public institutions, 74 percent come from states located in the Northeast.[21] These state, like Connecticut, have been identified as areas of traditional college-age population decline (Figure 5).[22] Therefore, it was assumed that the proportion of out-of-state students will not change during the projection period. As the population decline occurs in other northeastern states, however, those states will attempt to contain the out-migration of their residents. New Jersey, for example, has already announced a plan to do so. To the extent that other states are successful in restraining their own migration, or conversely, increasing in-migration, Connecticut's enrollment patterns will be negatively affected.

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[20] D. Frankel, W.J. Hagan, and G.M. Cooley, "Student Migration Patterns and Trends in Connecticut Students," Report BHE 2-79. Hartford, CT, 1979.

[21] Preliminary NCES Migration Report, 1981.

[22] High School Graduates: Projections for the Fifty States, (WICHE, November 1979), Figure 1.

4. 1980 data reflect stable participation rates. Participation rates of full-time and part-time students by town and age distribution were based on a one-year sample. It was assumed that the 1980 data reflected stable rates and not a point in an increasing or decreasing trend. Influences that could be expected to challenge this assumption were outlined in Table 1.

5. Average course load per student will remain at 1980 levels. It was assumed that the average course load per student at Connecticut institutions will remain at 1980 levels. There is some evidence, however, that the average course load is decreasing. In 1976, the average full-time load was 15.5 hours, compared to 15.1 in 1980. Part-time students enrolled for an average of 5.5 units in 1976, compared to 4.9 in 1980. If this trend continues, the FTE projections will be even lower than reported, compounding the overall enrollment decline.

6. Changing ethnic composition of the population will not change higher education participation rates or distribution of students among institutions. The proportion of minorities in Connecticut school-age population is known to be increasing. While minority students are less likely to complete high school than non-minority students, data are not available in Connecticut that would allow this tendency to be quantified. An assumption of constancy in high school graduation rates probably leads to overestimates of future participation rates in higher education. Counterbalancing this, however, is a tendency for minority high school graduates to attend institutions of higher education at higher rates than non-minority high school graduates.[23] Minority students in Connecticut higher education tend to choose Regional Community Colleges more often than non-minority students.[24] By not controlling for ethnicity, projections may underestimate Regional Community College enrollments and overestimate enrollments in other types of institutions.

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[23] Carol Frances. College Enrollment Trends: Testing the Conventional Wisdom Against the Facts. (American Council of Education, Washington, D.C., 1980), Table 12E.

[24] W. Hagan and J. Presley, "Minority Enrollments in Connecticut Institutions of Higher Education". Research Report No. 2-81, (BHE, Hartford, CT, 1981).

FIGURE 3

FLOWCHART OF ENROLLMENT PROJECTION METHODOLOGY

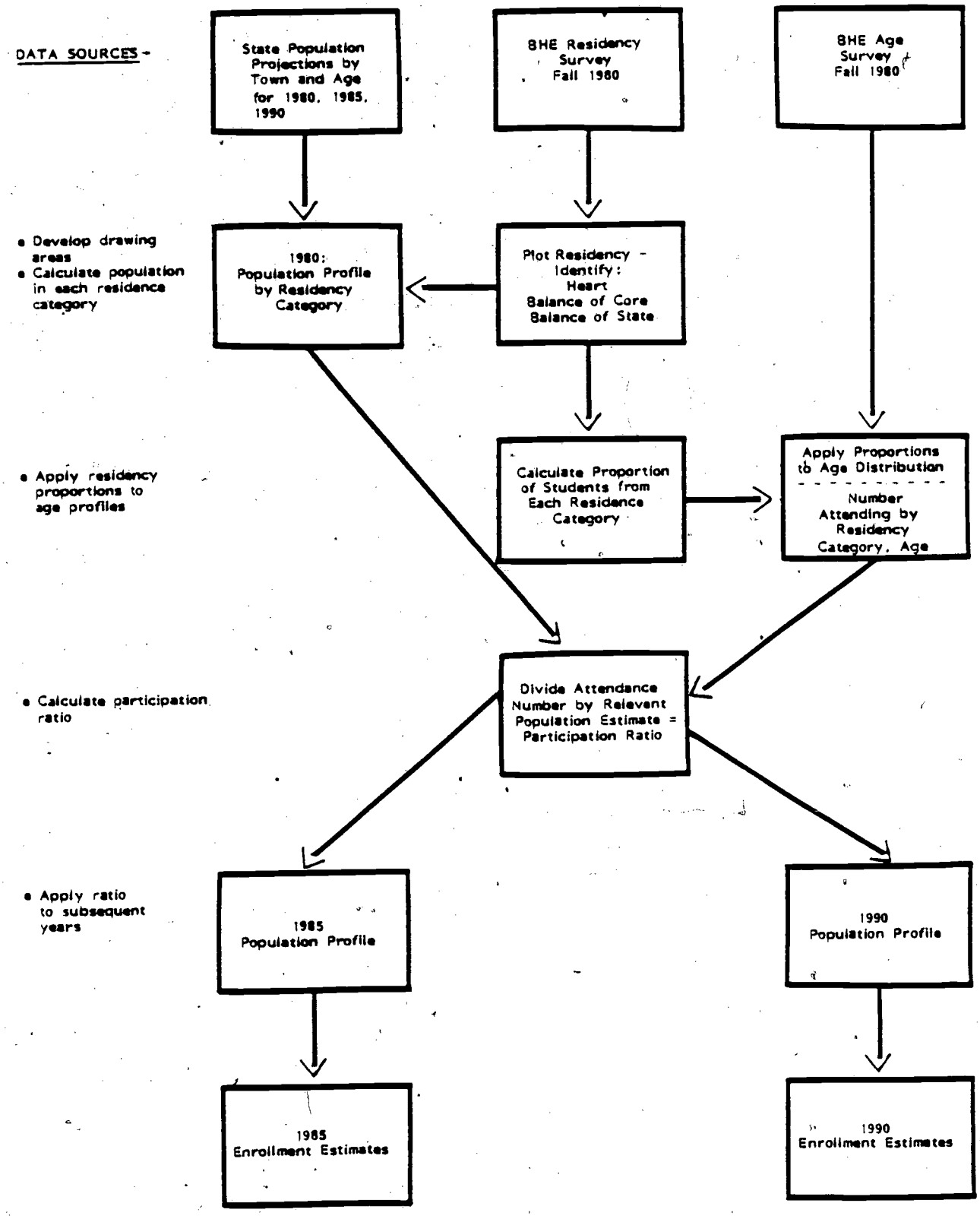
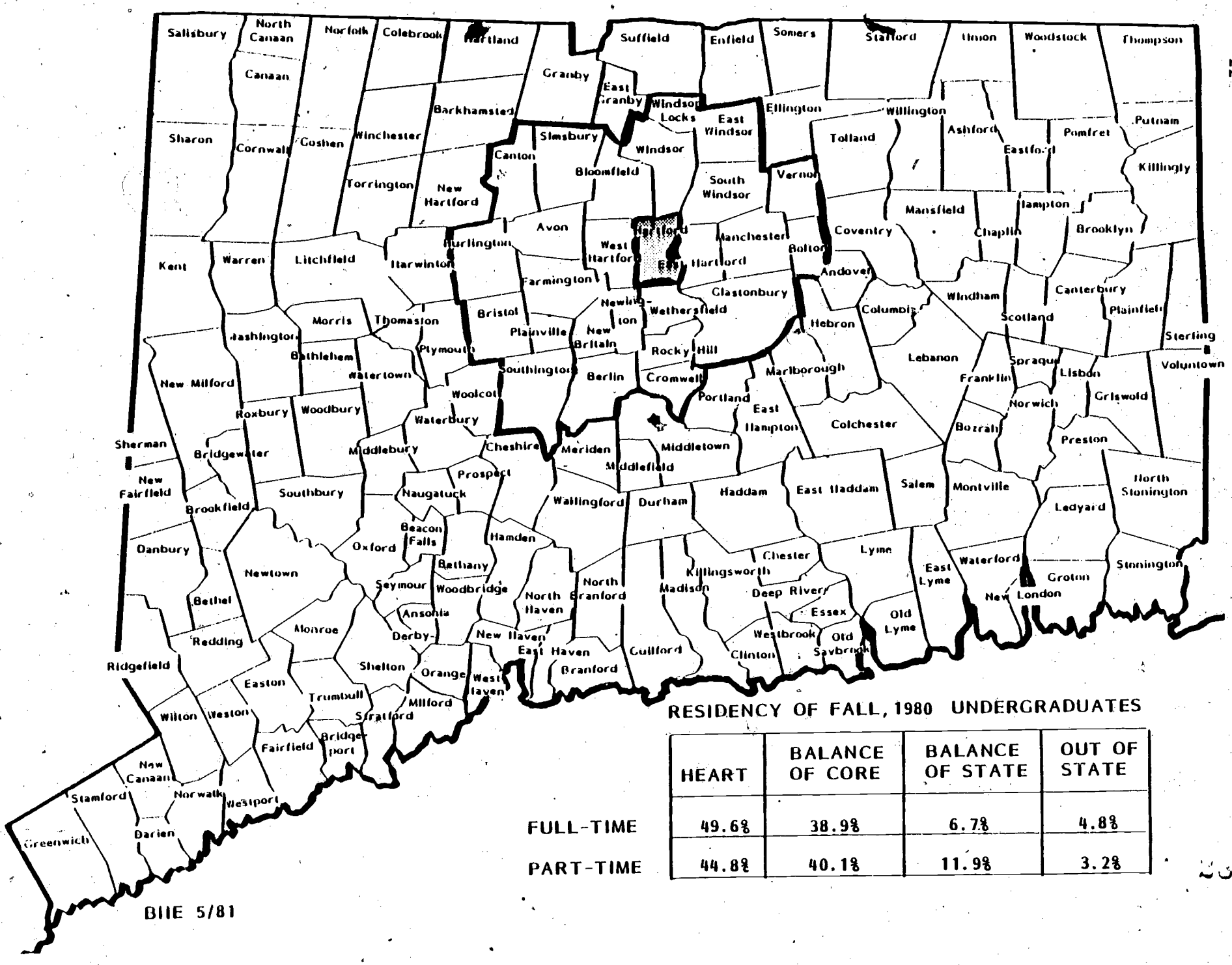


FIGURE 4: INSTITUTION A



BIIE 5/81

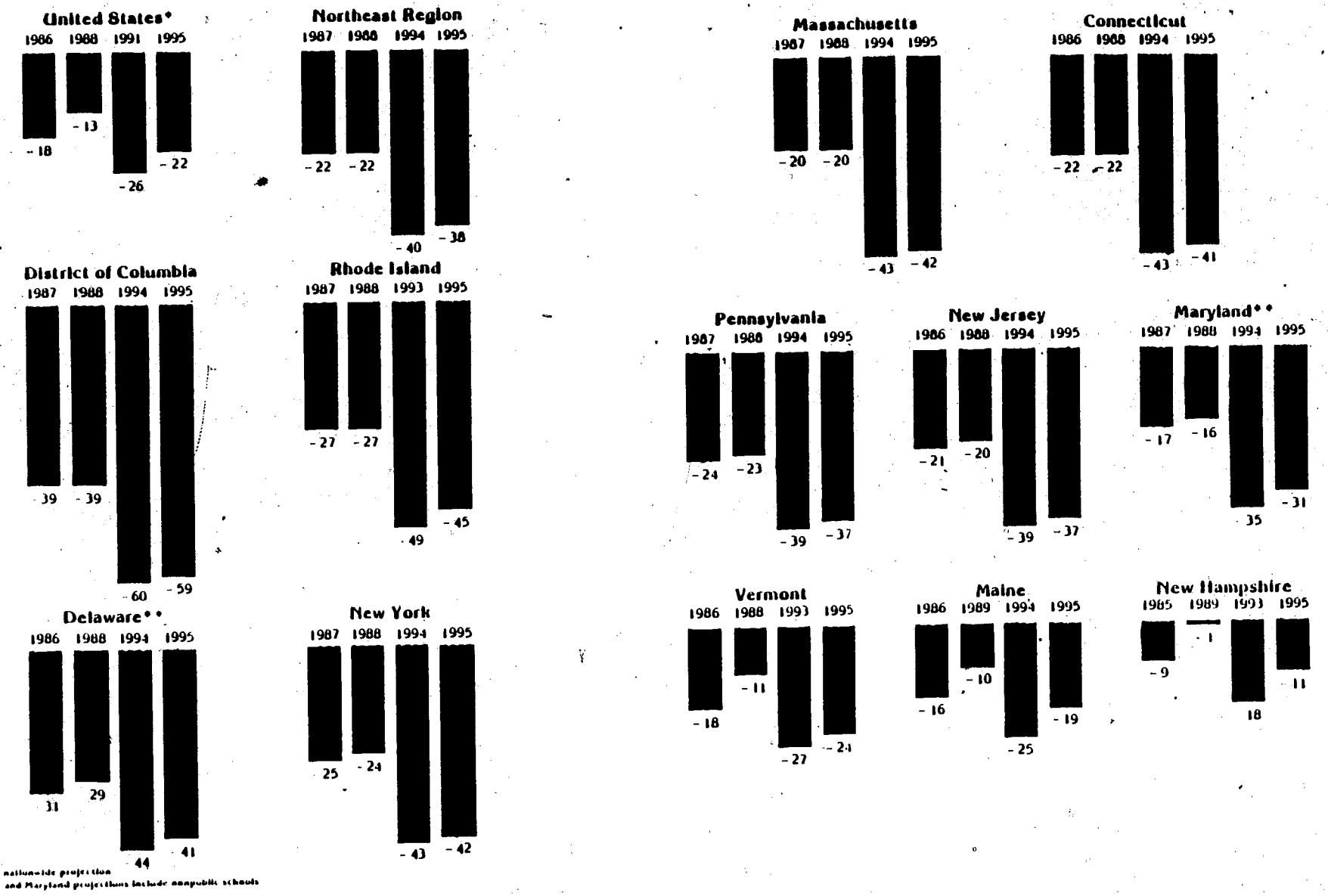
RESIDENCY OF FALL, 1980 UNDERGRADUATES

	HEART	BALANCE OF CORE	BALANCE OF STATE	OUT OF STATE
FULL-TIME	49.6%	38.9%	6.7%	4.8%
PART-TIME	44.8%	40.1%	11.9%	3.2%

FIGURE 5

PATTERN OF PROJECTED PUBLIC HIGH SCHOOL GRADUATES 1979-1995, NORTHEAST STATES

Percent Change from Level Estimated for 1979



*Based on nation-wide projection

**Delaware and Maryland projections include nonpublic schools

Source: High School Graduates: Projections for the Fifty States, Figure 1, WICHE, November 1979.

TABLE 5

RESIDENCY OF STUDENTS IN CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION

INDEPENDENT INSTITUTIONS

Fall 1980

	UNDERGRADUATE									GRADUATE									TOTAL FIRST-PROFESSIONAL			TOTAL		
	Part-Time			Full-Time			Total			Part-Time			Full-Time			Total								
FOUR-YEAR NATIONAL INDEPENDENT	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.
Connecticut College	88.5	10.1	1.4	29.1	68.6	2.3	37.4	68.4	2.2	Data not available														
Trinity College	72.7	26.0	1.3	34.4	64.2	1.4	37.7	60.9	1.4	98.6	1.4	-	-	-	-	98.6	1.4	-	100.0	-	-	44.2	54.5	1.2
Wesleyan University	108.8	-	-	17.2	81.6	1.3	17.8	81.8	1.3	89.4	8.9	1.7	63.1	23.4	13.5	79.3	14.5	6.2	-	-	-	23.5	74.8	1.7
Yale University	-	-	-	11.3	86.6	2.1	11.3	86.6	2.1	Data not available														
Unit Totals	83.2%	15.0%	1.8%	18.9%	79.3%	1.8%	21.4%	76.8%	1.8%															
FOUR-YEAR REGIONAL INDEPENDENT																								
Albertus Magnus	98.8	-	1.2	74.1	23.4	2.5	81.6	16.3	2.1	-	-	-	-	-	-	-	-	-	-	-	-	81.6	16.3	2.1
Bridgeport Engineering Institute	94.6	4.1	1.3	-	-	-	94.6	4.1	1.3	-	-	-	-	-	-	-	-	-	-	-	-	94.1	4.1	1.3
Educational Center Human Dev.										Data not available														
Fairfield University	100.0	-	-	48.9	50.8	0.3	63.0	36.7	0.2	92.7	6.1	1.1	64.0	21.3	14.6	90.1	7.5	2.4	-	-	-	68.2	31.1	0.6
Hartford Graduate Center										Data not available														
Hartford Seminary Foundation*	-	-	-	-	-	-	-	-	-	68.0	29.9	2.1	-	100.0	-	65.3	32.7	2.0	-	-	-	65.3	32.7	2.0
Holy Apostles College*	62.5	37.5	-	47.2	50.0	2.7	51.9	46.2	1.9	-	100.0	-	-	100.0	-	-	100.0	-	18.0	74.0	8.0	29.5	51.6	18.9
Palar School of Art, Inc.	99.2	0.8	-	95.3	4.7	-	96.3	3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	96.3	3.7	-
Post College	99.6	0.3	-	85.1	14.7	0.2	91.4	8.4	0.1	-	-	-	-	-	-	-	-	-	-	-	-	91.4	8.4	0.1
Quinnipiac College	99.5	0.4	0.1	66.9	32.9	0.2	78.6	21.3	0.1	96.6	3.4	-	88.9	11.1	-	96.4	3.6	-	-	-	-	80.0	19.9	0.1
Sacred Heart University	98.7	0.6	8.7	97.4	0.5	2.1	98.2	0.5	1.3	99.5	0.5	-	-	-	-	99.5	8.5	-	-	-	-	98.3	0.5	1.1
St. Alphonsus College*	-	100.0	-	-	100.0	-	-	100.0	-	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-	27.5	72.4	-
St. Basil's College*	-	-	-	8.3	83.3	8.3	8.3	83.3	8.3	-	-	-	100.0	-	-	100.0	-	-	-	-	-	15.4	76.9	7.7
St. Joseph College	98.9	0.7	0.4	85.3	13.9	0.8	89.4	9.9	0.7	96.9	3.1	-	85.2	11.1	3.7	96.2	3.6	0.2	-	-	-	91.7	7.8	0.5
University of Brdgeport	92.5	4.3	3.3	53.9	38.1	8.0	66.9	26.7	6.4	84.7	10.5	4.8	59.3	17.3	23.5	83.3	10.9	5.8	68.5	31.3	0.2	70.5	23.7	5.8
University of Hartford	92.4	7.0	0.6	48.9	47.9	3.2	66.3	31.4	2.2	93.9	4.6	1.0	56.7	18.5	24.7	88.6	6.6	4.8	-	-	-	72.5	24.5	2.9
University of New Haven	97.6	2.4	-	80.2	14.1	5.7	89.6	7.8	2.6	97.1	1.8	1.0	52.4	6.5	41.0	93.3	2.2	4.4	-	-	-	90.7	6.2	3.1
Unit Totals	96.3%	2.8%	0.8%	63.8%	33.0%	3.2%	77.6%	20.2%	2.2%	93.2%	5.1%	1.7%	58.7%	15.7%	25.5%	90.0%	6.0%	3.9%	64.3%	34.9%	0.8%	79.9%	17.5%	2.5%
TWO-YEAR INDEPENDENT																								
Briarwood College	100.0	-	-	98.8	1.2	-	99.0	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	99.0	1.0	-
Hartford College for Women	97.8	2.2	-	91.3	3.6	5.0	92.7	3.4	3.9	-	-	-	-	-	-	-	-	-	-	-	-	92.7	3.4	3.9
Katharine Gibbs School, Inc.	-	-	-	95.9	4.1	-	95.9	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	95.9	4.1	-
Mitchell College	99.1	0.6	0.2	40.4	53.1	6.5	69.4	27.3	3.4	-	-	-	-	-	-	-	-	-	-	-	-	69.4	27.3	3.4
Mount Sacred Heart*	33.3	66.6	-	42.9	57.1	-	38.5	61.5	-	-	-	-	-	-	-	-	-	-	-	-	-	38.5	61.5	-
Unit Totals	98.4%	1.4%	0.2%	70.3%	26.0%	3.7%	80.0%	17.5%	2.5%	-	-	-	-	-	-	-	-	-	-	-	-	79.5%	17.9%	2.6%
REGIONAL TOTALS	96.4%	2.8%	0.8%	64.2%	32.6%	3.2%	77.7%	20.1%	2.2%	93.2%	5.1%	1.7%	58.7%	15.7%	25.5%	90.0%	6.1%	3.9%	64.3%	34.9%	0.8%	79.9%	17.5%	2.5%

*Institutions whose primary function is to educate for religious life.
Source: BHE Residency Survey, Fall 1980.

TABLE 5, Continued

RESIDENCY OF STUDENTS IN CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION

PUBLIC INSTITUTIONS
Fall 1980

	UNDERGRADUATE									GRADUATE									FIRST-PROFESSIONAL			TOTAL		
	Part-Time			Full-Time			Total			Part-Time			Full-Time			Total								
UNIVERSITY OF CONNECTICUT	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.	In-State	Out-State	For.
Storrs	90.1	9.9	-	92.0	7.9	0.1	91.7	8.2	0.1	83.5	15.2	1.3	55.7	34.8	9.4	70.2	24.6	5.2	87.1	12.7	0.2	86.0	12.6	1.4
Groton	91.6	8.4	-	99.1	0.9	-	96.3	3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	96.3	3.7	-
Hartford	98.8	1.2	-	99.6	0.4	-	99.4	0.6	-	-	-	-	-	-	-	-	-	-			-	99.4	0.6	
Stamford	98.1	1.9	-	99.0	1.0	-	98.5	1.5	-	-	-	-	-	-	-	-	-	-			-	98.5	1.5	
Torrington	93.5	6.4	-	97.0	3.0	-	95.5	4.5	-		-	-	-	-	-	-	-	-			-	95.5	4.5	
Waterbury	100.0	-	-	99.5	0.5	-	99.6	0.4	-	-	-	-			-							99.6	0.4	
Five Branches Only	96.9	3.1	-	99.2	0.8	-	98.4	1.6	-	-	-	-	-	-		-						98.4	1.6	
Unit Totals	92.9%	7.1%	-	93.0%	6.9%	0.1%	93.0%	6.9%	0.1%	83.5%	15.2%	1.3%	55.7%	34.8%	9.4%	70.2%	24.6%	5.2%	87.1%	12.7%	0.2%	87.7%	11.0%	1.2%
STATE COLLEGES																								
Central Connecticut	99.0	0.9	0.06	94.8	3.6	1.6	96.0	3.0	1.0	99.0	1.0		88.0	12.0		97.9	0.8	1.3	-	-	-	96.6	2.4	1.0
Eastern Connecticut	100.0	-	-	97.1	1.9	0.9	97.7	1.5	0.7	99.6	0.4	-	100.0	-	-	99.7	0.3	-	-	-	-	97.9	1.4	0.7
Southern Connecticut	97.0	2.0	1.0	93.8	5.7	0.5	94.4	5.2	0.4	99.0	0.9	0.1	96.0	3.0	1.0	98.4	1.2	0.4	-	-	-	95.7	3.9	0.4
Western Connecticut	92.0	8.0	0.1	93.6	5.9	0.4	93.0	6.7	0.3	73.0	27.0	0.1	93.0	-	7.0	74.3	25.1	0.6	-	-	-	89.4	10.2	0.4
Unit Totals	97.0%	2.9%	0.1%	94.6%	4.5%	0.9%	95.0%	4.0%	0.7%	94.8%	5.0%	0.09%	93.8%	1.6%	4.5%	94.8%	4.6%	0.7%	-	-	-	95.1%	4.2%	0.7%
REGIONAL COMMUNITY COLLEGES																								
Asnuntuck	98.0	2.0	-	96.4	3.6	-	97.8	2.2	-													97.8	2.2	
Greater Hartford	99.8	0.2	0.04	95.2	0.4	4.4	98.6	0.2	1.2	-	-	-				-	-	-	-	-	-	98.6	0.2	1.2
Housatonic	99.9	-	0.1	98.1	-	1.9	99.3	-	0.7										-	-	-	99.3	-	0.7
Manchester	99.4	0.5	0.1	99.2	0.2	0.6	99.3	0.5	0.2	-	-	-				-	-	-	-	-	-	99.3	0.5	0.2
Mattatuck	99.9	0.1	-	98.8	1.2	-	99.4	0.6	-	-	-	-							-	-	-	99.4	0.6	
Middlesex	100.0	-	-	99.9	0.1	-	99.9	0.1	-	-	-	-										99.9	0.1	
Mohegan	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-							-	-	-	100.0	-	
Northwestern Connecticut	99.3	0.7	-	96.7	2.7	0.6	98.7	1.1	0.1	-	-	-							-	-	-	98.7	1.1	0.1
Norwalk	98.2	1.7	0.1	98.1	0.4	1.5	98.1	1.3	0.6	-	-	-							-	-	-	98.1	1.3	0.6
Quinebaug Valley	100.0	-	-	100.0	-	-	100.0	-	-	-	-	-							-	-	-	100.0	-	-
South Central	100.0	-	-	99.5	0.5	-	99.8	0.2	-	-	-	-							-	-	-	99.8	0.2	-
Tunxis	99.2	0.8	-	99.7	0.3	-	99.3	0.7	-	-	-	-										99.3	0.7	-
Unit Totals	99.4%	0.5%	0.03%	98.7%	0.6%	0.8%	99.1%	0.5%	0.3%	-	-	-				-					-	99.1%	0.5%	0.3%
STATE TECHNICAL COLLEGES																								
Greater New Haven	100.0	-	-	100.0	-		100.0	-	-	-	-	-	-	-	-						-	100.0	-	
Hartford	100.0	0		99.4	0.6	-	99.7	0.3	-	-	-	-	-	-	-							99.7	0.3	
Norwalk	98.1	1.9		98.1	1.9		98.1	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	98.1	1.9	-
Thames Valley	97.9	2.1	-	95.4	4.6		96.9	3.1	-	-	-	-	-	-	-	-	-	-				96.9	3.1	
Waterbury	99.8	0.2	-	100.0	-		99.9	0.1	-	-	-	-	-	-	-	-	-	-				99.9	0.1	
Unit Totals	99.0%	1.0%		98.4%	1.6%	-	98.8%	1.2%	-	-	-	-				-	-					98.8%	1.2%	
TOTALS	98.4%	1.5%	0.03%	95.3%	4.1%	0.6%	96.8%	2.9%	0.3%	91.5%	8.0%	0.5%	66.6%	25.4%	8.0%	84.8%	12.7%	2.5%	87.2%	12.7%	0.2%	95.2%	4.2%	0.6%

Source: BHE Residency Survey, Fall 1980.

APPENDIX II

State of Connecticut Population Projections

The enrollment projection methodology relies on the state of Connecticut's population projections completed in 1978 and revised in 1979.[25] These population projections are based on 1970 census data, and the estimates for 1980 are 4 to 6 percent above the final statewide 1980 U.S. Census totals. If projections for subsequent years are also inflated by this amount, then no bias results in the current enrollment estimates because all participation ratios will be calculated to be somewhat lower than the true participation ratios. If, however, the discrepancy between population estimates based on 1970 census data and 1980 census data systematically increases, then the Board of Higher Education enrollment projections will be overestimates of future participation in higher education.

1980 census data could not be used because town-by-town projections by age are not yet available. When revised population projections are made available by the state of Connecticut, enrollment projections will be revised and extended to 2000.

Projection Methodology. The state's population projections utilized an age-cohort component approach incorporating births, deaths and migration. This model provided an age and sex distribution for each municipality in the state of Connecticut. The distribution of persons in a particular year was computed by applying municipal survival and fertility rates and migration assumptions over time. The state model used to project the municipal populations assumed several conditions.

- The median variant fertility rate used was the 1973 level. Fertility rates in the next 25 years were assumed to follow closely the rates of the decade of the 1970s.

- The mortality rates in 1970, 1973 and 1976 were analyzed to identify trends. Rates were calculated by sex by five-year age groups and entered into empirical life tables used by the U.S. Bureau of Census. Six tables for each municipality were developed and the table most consistent with the identified trends was used. Generally, an increase of three years in life expectancy from 1970-2000 was anticipated.

- An analysis of migration trends considered the total net migration for each five-year period and an age and sex distribution for each Connecticut town. The periods 1960-70 and 1970-75 were analyzed to identify migration trends.

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[25] Revised Preliminary Population Projections for Connecticut Municipalities by Age and Sex to Year 2000, (Department of Health Services, State of Connecticut, March 1979).

Specifically, the natural increase component (births minus deaths) was deducted from the total change in population. The residual was assumed to be net migration. Adjustments to the migration rates were made following consideration of three assumptions:

- Slow economic growth will occur in Connecticut and the whole Northeast.
- Growth in the suburbs will continue but at a slower rate.
- No sharp growth is assumed for central cities, although net out-migration will slow or stop.

The state projections were reviewed and compared with national projections. The projections were further compared to current data on licensed drivers in the state. Finally, the projections were compared to medicare enrollees by county for the year 1975. If differences exceeded 5 percent, further review and analysis were initiated.

The state's projection model included a comprehensive analysis of measurable population traits. Preliminary projections were reviewed in terms of current knowledge of, and conformance to, the state, regional and national economic and demographic trends.

This report is one of a series of research reports prepared by the Board of Higher Education. Other Reports in this series are

Higher Education Staff Information Survey, R-1-80

Enrollment in Connecticut Higher Education, R-1-81

Minority Enrollment in Connecticut Institutions of Higher Education, R-2-81

Women in Connecticut Higher Education, R-3-81

Other BHE publications include

Anticipating the 1980s: Report and Recommendations to the General Assembly on Higher Education in Connecticut, September 1979

Higher Education: A Connecticut Resource, annual brochure

Public and Independent Colleges and Universities in Connecticut, annual directory

Higher Education in Connecticut: A Status Report, January 1981

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