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UNDERGRADUATE CURRICULUM TRENDS IN SIXTEEN PRIVATE
LIBERAL ARTS COLLEGES OVER A PERIOD OF TWENTY-FIVE YEARS
1953 - 1978

presented by

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UNDERGRADUATE CURRICULUM TRENDS IN SIXTEEN PRIVATE
LIBERAL ARTS COLLEGES OVER A PERIOD OF TWENTY-FIVE YEARS:
1953-1978

By

Harold A. Acosta

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ABSTRACT

UNDERGRADUATE CURRICULUM TRENDS IN SIXTEEN PRIVATE LIBERAL ARTS COLLEGES OVER A PERIOD OF TWENTY-FIVE YEARS: 1953-1978

By

Harold A. Acosta

Contemporary literature on undergraduate curriculum trends based on the contents of published college catalogs over a specific length of time is infrequent. In liberal arts colleges, such as those included in this study, there are certain features of progress that take years if not decades to evolve, and can, over 25 years, become lost, confused, or forgotten, simply because of the unavailability of catalog research.

The purpose of the study, therefore, was to determine if the undergraduate curriculum requirements for the baccalaureate degree changed in sixteen private liberal arts colleges had changed over a period of 25 years: 1953-1978, based on the contents of their published catalogs. An additional purpose was to determine if these colleges offered remedial courses, published non-discrimination policy statements, and offered minority courses.

Fourteen research questions served as a means in determining undergraduate curriculum changes. However, the following provided major findings:

1. How had the number of hours required for the baccalaureate degree changed over a period of 25 years?
2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of 25 years?

3. How had the number of courses and majors offered for the baccalaureate changed over a period of 25 years?

4. How had the requirements for English composition, foreign language, physical education, and religion changed over a period of 25 years?

5. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

6. Were remedial courses offered during the span of 25 years. Was credit awarded. Were credits applicable toward the baccalaureate degree?

7. Did institutions publish a Non-Discrimination Policy Statement over a period of 25 years?

8. Were minority courses offered over a period of 25 years?

Methodology of the Study

The sample was a select group of sixteen private liberal arts colleges and their catalogs spanning a period of 25 years. The sample does not represent any particular size, control, or geographic location.

College catalog representation for each year was not available, rather the catalogs ranged from 1953 through 1978. Because of the representation, colleges and their catalogs were organized into five, five-year Block Intervals. For each Block Interval, one catalog of each college was selected to represent a five-year interval. The Block Intervals were: Block I: 1953-1958, Block II: 1958-1963, Block III: 1963-1968, Block IV: 1968-1973, and Block V: 1973-1978. Total number of catalogs available was 76 out of 80, five catalogs per college per Block Interval (except in Block I where $n = 13$ and Block II where $n = 15$).

Two methodological approaches were followed: Longitudinal: For each college in each interval, catalog documentation was recorded across each college for each five-year interval. Cross-sectional: For each college in each interval, catalog documentation was recorded between each college for each five-year interval.

The data were tabulated by means of table formats and graphs (in percentages). Narrative statements were also provided to describe other trends.

Summary of Major Findings

1. There was an increase in the number of hours required for graduation.
2. General education diminished considerably, while the major remained relatively stable; the net effect was an increase in the electives.
3. There was an increase in the number of courses and majors offered.
4. Fewer colleges required English composition, foreign language, physical education, and religion.
5. There was a shift toward comprehensive examinations.
6. Remedial courses were offered for no credit, and were not applicable toward the degree.
7. Three-fourths of the colleges published non-discrimination policy statements during the last 10 years of the 25 year period.
8. More minority courses were offered in the last 10 years of the 25 year period.

Conclusions, implications and recommendations for further research were provided.

DEDICATION

This dissertation is dedicated to my late father, Don Pedro, and my late brother, Isidro. It was unfortunate they passed away before I was able to complete my dissertation. This dissertation is also dedicated to my mother, Doña Carmelita, and all my brothers and sisters.

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CHAPTER I

RATIONALE FOR THE STUDY

Prefatory Remark

This study was an outgrowth of a research project conducted by Drs. Paul Dressel and Albert Lynd (Office of Institutional Research, Michigan State University) on changing curricular practices in nineteen selected private liberal arts colleges over a period of twenty-five years: 1953-1978, based on college catalog review ranging from 1953 through 1978 in staggered single years, and on occasion, two-year catalogs; on-site visitations; unpublished documents (e.g. minutes from curriculum committees) from institutions; and telephone conversations (Dressel, 1978).

Their study described the college's curriculum by noting, primarily, but not exclusively, general patterns of how many majors and minors were offered and the number of credits assigned to each; the number of courses offered by each department; and the curricular structural arrangements of each college. However, their study is in no way a survey of the degree to which curriculum practices are practiced across the country among similar liberal arts colleges. Each institution was selected because the major author (Dressel) had an interest in curricular practices, and because each institution agreed to provide college catalogs for review over this twenty-five year period. The list of institutions included were not selected, nor was the analysis intended to be representative of liberal arts colleges across the country.

The Dressel and Lynd study also included detailed case studies of the evolution of the curriculum and structural arrangements that have emerged over this twenty-five year period in four of the nineteen colleges.

The investigator's research selected sixteen within the set of nineteen institutions in the Dressel and Lynd study (one of these sixteen institutions was included in the set of four studied by these investigators, but this investigation did not duplicate specific questions asked by Dressel and Lynd). Three institutions were eliminated because (a) two were founded in 1971 and did not fall within the span of twenty-five years, and (b) one did not provide adequate catalog information. The investigator's research addressed the colleges' curriculum in general (similar questions asked in the Dressel and Lynd study), and curricular changes in particular (but did not address the evolution of the curriculum and structural arrangements). In addition, the investigator's research addressed remedial course offerings, non-discrimination policy statements, and minority course offerings (information that was not addressed in the Dressel and Lynd study).

The intent of this study was to determine if the undergraduate requirements for the baccalaureate degree in these sixteen private liberal arts colleges changed over a period of twenty-five years: 1953-1978, based on the contents of their published catalogs. A secondary intent of this study was to document the range and frequency of curricular trends and practices in these same colleges. An additional intent was to determine if these same colleges offered remedial courses, published non-discrimination policy statements, and offered minority courses during this same twenty-five year period: 1953-1978.

Introduction

Conferences, journal articles, and books reveal a concern with undergraduate education. Such reports represent only a fraction of the changes or innovations taking place in higher education and, hence, provide no basis for determining prevailing practices and current trends (Dressel and DeLisle, 1969, p. 8).

Blackburn and associates (1976) acknowledged this same need and expressed their view by stating:

Before policies regarding undergraduate degree requirements can be advanced, an accurate reading of recent and current practices is necessary (p. ii).

Among contemporary educational researchers or, what Butts (1939) calls "fact finding investigators" (p. 239), Rudy (1960), Dressel and DeLisle (1969), and Blackburn, et. al. (1976) are credited with examining curricular trends and practices of undergraduate education over a specific length of time, based on the contents of published catalogs (methodologies used by Dressel and Blackburn are discussed in more detail in Chapter Two, and therefore are the foci of contemporary undergraduate curriculum trends and practices in this study). However, there are other contemporary studies which addressed curriculum trends and practices of undergraduate education that used the college catalog to determine trends and practices, but did not focus on a specific length of time.

These contemporary studies, however, do not stand alone in determining trends and practices of undergraduate education. There is evidence of early fact finding investigators who were concerned with, not so much the trends and/or practices of undergraduate education, but with the "spread" of free electives that invaded the college curriculum during the late nineteenth and early twentieth centuries (treated in more detail in Chapter Two).

In brief, early researchers such as Palmer (1886) used a chart illustrating the increase in elective studies in 15 New England colleges from 1875 to 1885 when he was explaining and defending the use of the elective system at Harvard (p. 581). The United States Bureau of Education's annual reports after the 1880s began to publish detailed subjects offered by colleges and universities with elective subjects written in italics (U.S. Bureau of Education, 1888-1889 annual report, pp. 1224-1361).

Brigham (1897) published a report in which he studied the catalogs of 25 colleges for the period 1895-1896 to determine the extent of the acceptance of the elective system (pp. 360-369). Phillips (1901) studied 87 catalogs, and 97 questionnaires completed by college presidents to determine the spread and extent of the elective system up to that time (pp. 206-230). Canfield (1905) reported to the forty-fourth annual meeting of the National Education Association a compilation of replies received from thirty-five colleges and universities throughout the country in answer to the question whether or not wide election and narrow courses tended to weaken the undergraduate course by too much specialization (pp. 494-501). Finally, Foster (1911) devoted a part of his book published in 1911 to the historical development of the elective system as one of the most important phases in the development of the American college and the major portion to a critical study of some of the problems that the elective system had raised for the college administrator.

Among contemporary educational researchers, Cole and Lewis (1962) concerned themselves with "flexibility" to refer to those practices or combinations of practices by which each student is permitted to progress in his college program at the rate and depth of which he is

capable. Haswell and Lindquist (1965) concerned themselves only with the broad requirements as percentages of total requirements and not with details of specific course requirements. Brick and McGrath (1965) developed a picture novel and creative practices that were introduced in the liberal colleges during 1961. These investigators did not use the college catalog over any specific length of time to determine trends and/or practices.

Dressel and DeLisle (1969) focused on the period 1957-1967, for which there were detailed analyses of course offerings in a random sample of 322 institutions, intended to be representative of types, control, size, and geographic location (according to the Education Directory, Part 3, Higher Education, as presented in the American Council on Education's American Universities and Colleges, Ninth Edition, 1964). Blackburn et. al. (1976) focused on the period 1967-1974 and used the Carnegie's A Classification of Institutions of Higher Education, 1973, to represent five major institutional categories: research universities, other doctoral-granting universities, comprehensive universities and colleges, liberal arts colleges, and community colleges. (His study was the first to include two-year colleges). A total of 271 institutions listed in the Carnegie classification were sampled. His sample met the requirements of representativeness and geographic distribution.

In spite of these two contemporary studies by Dressel and DeLisle (1969) and Blackburn et. al. (1976), the literature in this area of study revealed a paucity of research in published catalog documentation over a specific length of time despite the fact that the . . . college catalog is the official record of the college, and a public statement of the institution's goals and philosophy (Dressel, 1978).

The paucity of contemporary literature suggests a need for curriculum planners and/or developers to periodically analyze and review their catalogs through whatever means are available to them, even if one college or an amalgamation of similar colleges conduct catalog research. Such efforts will provide a historical description and an illustration of curriculum changes that have emerged in their undergraduate curricular requirements for the baccalaureate degree over any specific length of time, as documented by the content of their published catalogs. As important, such information could assist in the development of policies regarding undergraduate degree requirements.

Need for the Study

Curriculum planners and/or developers are always in need of historical information to plan for the future. Rudolph (1977) expresses this view by stating:

It is impossible to think clearly about the curriculum of the American college or university without some sense of its past (p. ix).

Hefferlin (1969) adds, "The curriculum remains the central means to an educational institution's end; and if the curriculum is irrelevant, it must be changed" (p. xix).

In the liberal arts colleges, such as the ones included in this study, there are certain features of progress that take years if not decades to evolve, and can, over the span of twenty-five years, be lost, confused, or forgotten, simply because of the unavailability of historical catalog research. For example, "How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?" "What changes in specific

curriculum requirements for English composition, foreign language, physical education, and religion were evident over a period of twenty-five years?" In addition, "Were remedial courses offered over a period of twenty-five years?", "Was a non-discrimination policy statement published in the catalogs?", and "Were minority courses offered over a period of twenty-five years?"

Providing historical information in response to these questions can be of assistance to those persons who are developing an interest in the curriculum possibly for the first time; the new trustee, the faculty member's initial appointment to a committee on the curriculum, the new academic administrator, and the recently elected student leader. The individual with substantial experience with the curriculum, however, may also find in this information data that would not otherwise come to his or her attention (Carnegie Foundation for the Advancement of Teaching, 1977, p. xi).

Rudolph (1977) summarizes such efforts by commenting:

In the final analysis, the curriculum is nothing less than the statements a college makes about what, out of the totality of man's constantly growing knowledge and experience, is considered useful, appropriate, or relevant to the lives of educated man and women at a certain point of time (p. ix).

Purpose of the Study

The purpose of this study was to determine if the undergraduate curricular requirements for the baccalaureate degree in sixteen private liberal arts colleges changed over a period of twenty-five years: 1953-1978, based on the contents of their published catalogs. A secondary purpose was to document the range and frequency of curricular trends and practices in these same colleges over this same period. An additional

purpose was to determine if these same colleges offered remedial courses, published non-discrimination policy statements, and offered minority courses during this same twenty-five year period: 1953-1978.

Procedures Followed

This study was basically historical, descriptive, and empirical in content. It's similar to studies by Dressel and DeLisle (1969) and Blackburn et. al. (1976).

Two methodological approaches were followed in this study. First, a longitudinal approach (an approach used by earlier researchers) was used across institutions over a period of twenty-five years. Second, a cross-sectional approach (an approach not used by earlier researchers) was used between institutions over a period of twenty-five years. These two procedures are discussed in detail in Chapter III.

Research Questions

The following eleven research questions were chosen because they conform primarily, but not exclusively, to questions asked by earlier researchers concerned with changing practices and contemporary trends of the undergraduate curriculum (Dressel & DeLisle 1969, and Blackburn et. al. 1976) based on the contents of published catalogs:

1. How had the number of hours required for the baccalaureate degree changed over a period of twenty-five years?
2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?
3. How had the number of courses and majors offered for the baccalaureate degree changed over a period of twenty-five years?

4. How had the requirements for English composition, foreign language, physical education, and religion changed over a period of twenty-five years?

5. Was there a shift away from or toward English proficiency testing as part of the requirements for the baccalaureate degree?

6. What changes in curricular structural arrangements were evident between and across institutions over a period of twenty-five years?

7. What quantitative measures (e.g. credits, semester hours, quarter-hour, term, unit, course, etc.) were used in specifying degree requirements within and across institutions?

8. What academic systems (e.g. semesters, quarters, etc.) were used in specifying degree requirements over a period of twenty-five years?

9. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

10. Was there a shift away from or toward specifications of pre-requisite courses in general education, the major, and electives as part of the requirements for the baccalaureate degree?

11. Was there a shift away from or toward accepting credits-by-examination as part of the baccalaureate degree requirements?

The remaining three research questions were included because earlier researchers concerned with changing practices and contemporary trends of the undergraduate curriculum did not address them:

12. Were remedial courses offered during the span of twenty-five years? Was credit awarded? Were credits applicable toward the baccalaureate degree?

13. Did institutions publish a Non-Discrimination Policy Statement over a period of twenty-five years?

14. Were minority courses offered over a period of twenty-five years?

Limitations of the Study

This study had the following limitations:

1. College catalogs were determined to serve as the only official source of information to be examined in this study.

2. The colleges included in this study do not represent any particular size, control, or geographic location. Therefore the investigator only reported the occurrence of change among these colleges from their published catalogs. As a consequence of these limitations, the study's findings may not be generalized beyond this sample.

3. The research questions asked of these colleges over this period of twenty-five years do not intend to be exhaustive, nor mutually exclusive.

4. External and internal forces that shaped the curriculum in these colleges were not addressed. Information and discussions about such causes and effects do not normally and did not appear in the college catalogs.

5. The undergraduate curriculum in these colleges do not represent the undergraduate curriculum in America. There are more than 3,000 colleges and universities in this country, and each has a curriculum that is in some ways unique.

Definition of Terms

The curricular terms "breadth," "depth," and "electives" are generally associated with "general education," "the major" (or concentration), and "electives" (free or prescribed), respectively. "These terms are found in the curricular of the overwhelming majority of colleges in the United States, but they are not universal" (Carnegie Foundation 1977, p. 123).

General Education (the first statement of requirements for the baccalaureate degree), is the generic term used to describe "breadth" requirements. Levine (1978) states that, "General education is the breadth component of the undergraduate curriculum and is usually defined on an institution-wide or college-wide basis" (p. 3). Dressel & DeLisle (1969) state that "General education refers to courses that acquaint students with the content and methodology of the major areas of learning: social sciences, natural sciences, and humanities (p. 12). Similarly, Levine (1978) express that General education ". . . generally involves study in several subject areas and frequently aims to provide a common undergraduate experience for all students at a particular institution" (p. 3). The Carnegie Foundation for the Advancement of Teaching (1977) state

Breadth components of general education introduce students to the concerns and methods of several broad subject fields--typically the social sciences, the humanities, the physical sciences, the biological sciences, and, occasionally, the fine arts. This component of general education is often referred to as distribution (10: p. 122).

The Major, or concentration (the second statement of requirements for the baccalaureate degree), is the generic term used to describe "depth" requirements. Levine (1978) states

The major, or concentration, which usually consists of a number of courses in one field or in two or more related fields, is the depth component of the undergraduate curriculum. It is intended to provide students with a body of knowledge, methods of study, and practice appropriate to a subject or subject area (p. 28).

The Carnegie Foundation for the Advancement of Teaching (1977) adds

The major (or concentration) is that part of the curriculum in which a student concentrates on one subject or a group of subjects. Its content is usually defined by one academic department, but it can also be defined jointly by two or more departments and, in special cases (and with faculty advice and approval) by individual students (p. 122).

Electives (the last statement of requirements for the baccalaureate degree) are those courses which remain to be taken after a student satisfies the general education and major requirements. Carnegie (1977) states

Electives are subjects students study of their own free choice. The only basic requirement is that students must take enough elective units, in addition to those earned in the major and in required general education, to meet the minimum number of units the college requires each student to take in order to graduate or earn a degree (p. 122).

Dressel & DeLisle (1969) comments, "Presumably, these provide for individualizing a program by permitting students to select on the basis of personal interest or goals, rather than because of faculty-determined principles" (p. 34).

Some electives are considered "free," that is, students have a choice of what courses to study. Other electives may be "required" (or prescribed)--students are required to take certain courses that in some way complement their general education requirements and/or their major.

The curricular term course ". . . a concrete entity, extending over time with a beginning, and ending . . ." (Veysey, 1973, p. 22)

is the generic term used when describing the number of courses to fulfill the requirements for the baccalaureate degree, rather than the content of the substance taught within the curriculum.

The curricular term credit ". . . a unit for expressing quantitatively the time required for satisfactory mastery of a course . . ." (Lewis, 1969, p. 2), is the generic term used when discussing the credit system across and between colleges included in the study. According to Levine (1978) ". . . credit is usually defined as 50 minutes of instruction per week (p. 156). Lewis (1969) adds, ". . . three credits per semester are typical for most courses. Although, in practice, the quantitative measure came to be time, rather than content covered or competence developed (pp. 2-3). As the academic calendar varied in length (semesters, quarters, etc.) the quantitative measures assigned to courses also varied. Semester hours, quarter-hours, terms, units, and courses, are synonyms for credit.

Finally, the term curriculum is defined ". . . as the body of courses that present the knowledge, principle, values, and skills that are intended consequences of the formal education offered by a college . . ." (Carnegie Foundation for the Advancement of Teaching, 1977, p. xiv). Blackburn et. al. (1976) adds, "Probably the most common meaning given to curriculum is the functional one, namely, a set of requirements--almost always specified as a collection of courses--that constitute an academic program. For a college or university degree, for example, the curriculum is the set of courses or credit hours an institution requires a student to take in order to graduate" (p. 1).

Summary

This study was an outgrowth of an earlier research project conducted at the Office of Institutional Research at Michigan State University. This study was historical, descriptive, and empirical in nature and was intended to determine if the undergraduate curricular requirements for the baccalaureate degree in sixteen private liberal arts colleges changed over a period of twenty-five years: 1953-1978, based on the contents of published catalogs. A second intent was to document the range and frequency of curricular trends and practices in these same colleges. In addition, the study intended to determine if the colleges offered remedial courses, published a non-discrimination policy statement, and if they offered minority courses. Fourteen research questions were used as directives in determining changes in the undergraduate curriculum. Limitations of the study and definition of terms were presented. It is expected that the results of this historical, descriptive, and empirical study will provide historical catalog information for curricular planners at these colleges.

Overview of Dissertation

Chapter II contains a review of the literature pertinent to this study. The review includes historical overview of early American curricular developments from 1636 to 1869; historical overview of contemporary American curricular developments from 1919 to 1973 (these historical overviews and the programs described are not intended to represent the full range of institutions and programs that were developed during the course of American higher education, they only represent a small sample in the continuing development of curricular programs and innovations

in American higher education); overview of methodologies and curricular trends: early and contemporary catalog studies from 1886 to 1976; and contemporary overview of the three traditional components of the undergraduate curriculum: breadth, depth, and electives. In addition, comments on remedial course offerings, non-discrimination policy statements, and minority course offerings are reviewed. The design of this study, which is presented in Chapter III, includes the description of the sample, methodology and treatment of the data, and research questions. Chapter IV contains the analysis and interpretations of the data. The summary of the findings, conclusions, implications and recommendations are presented in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

In this chapter the review of literature pertinent to this study is presented in the following sequence: (1) historical overview of early American curricular developments from 1636 to 1869, (2) historical overview of contemporary American curricular developments from 1919 to 1973 (NOTE: these historical overviews are presented to give the reader a sense of the development of the American curriculum, however, these historical overviews and the programs described are not intended to represent the full range of institutions and programs that were developed during the course of American higher education. They only represent a small sample in the continuing development of curricular programs and innovations in American higher education), (3) overview of methodologies and curricular trends: early and contemporary catalog studies from 1886 to 1976, and (4) contemporary overview of the three traditional components of the undergraduate curriculum: breadth, depth, and electives. In addition, comments on remedial course offerings, non-discrimination policy statements, and minority course offerings are reviewed. Summaries of the important findings particular to each section are provided.

HISTORICAL OVERVIEW OF EARLY AMERICAN CURRICULAR DEVELOPMENTS: 1636-1869

Higher education in America began at Harvard College. Founded in 1636 by the General Court of Massachusetts at Newtowne (later changed to Cambridge) Massachusetts, it sought to impart an opportunity for

a select few of New England's youth to study the humane and liberal learning, and to be instructed in the Christian religious traditions, which together shaped the essential character of Western civilization (McGrath, 1966, p. 1).

Butts (1939); Brubacher and Rudy (1958); Mayhew (1975); Mattfeld (1975); and Rudolph (1962 & 1977), among others, states that Oxford and Cambridge furnished the original model which the early colonial colleges sought to copy.

The prototype for the first English-American college was Emmanuel College, Cambridge University. The earliest Harvard College statutes were taken directly from the Elizabethan statutes of the University of Cambridge; that the phrases pro modo Academiarum in Anglia (according to the manner of universities in England) is to be found in the first Harvard degree formula; . . . even the names of the four colleges classes--freshman, sophomore, junior sophister, and senior sophister--were borrowed directly from England. In other points involving student discipline, curriculum, administrative regulations, and degree requirements, Harvard followed English college precedents as closely and faithfully as she could; and Harvard in turn, became the great prototype for all the later colleges of English-America (Brubacher & Rudy, 1958, p. 3).

By 1642, the Harvard curriculum was firmly established. President Dunster taught all students all of the subjects. The first year, students studied logic, Greek, Hebrew, rhetoric, divinity catechetical, history, and the nature of plants. The second year they studied ethics and politics, Greek, rhetoric, Aramaic, and divinity catechetical. The third and final year, they studied arithmetic, astronomy, Greek, rhetoric, Syriac, and divinity catechetical (Levine, 1978, p. 539). The three year course of study Dunster presided over was something of an anomaly. Why he deviated from the four years characteristic of an English college is not clear (Rudolph, 1977, p. 31).

"What is known as the classical curriculum, a melding of medieval scholastic training and renaissance emphasis on highly literate expression, was the earliest pattern adopted in America" (Mattfeld, 1975, p. 533). "Dunster's 1642 curriculum," comment Rudolph (1977), "was the model after which, with little variation, higher education in the English colonies was patterned" (p. 32).

The Harvard curriculum of 1723, nearly one hundred years later, was much the same, except that more Latin was stressed in the freshman year, metaphysics had been added and botany dropped . . . The other colonial colleges followed substantially the same kind of curriculum, stressing, as did Harvard, the traditional language arts and philosophy (Brubacher & Rudy, 1968, p. 13).

William and Mary--1693

America's second college was the College of William and Mary, founder and first president was James Blair, in 1693 under Anglican auspices. In greater or lesser degree, the same broad purposes that founded Harvard, were revealed in its royal charter. It was founded primarily for religious purposes, namely to train ministers, to educate youth piously in good letters and manners, and to extend Christianity to the Indians. From such men it was expected that the colony would draw its public servants (Brubacher and Rudy, p. 4; Butts, p. 63; Rudolph, 1962, p. 7).

It was influenced by the Scottish conceptions of higher education. The post-Reformation Scottish universities, unlike Oxford and Cambridge, were nonresidential, professionally oriented, and under the control, not of faculty, but of prominent lay representatives of the community.

Its curriculum was similar to that of Oxford colleges and did not change much during its 85 years of existence. Greater emphasis was placed on mathematics, history, and science than at Harvard. The greatest change in the curriculum came in 1779 when the efforts of Thomas Jefferson (alumnus of William and Mary) marked the first overt recognition of the elective principle as a desirable element in college education to be found in America (Brubacher & Rudy, p. 4; Butts, p. 63; Levine, p. 500).

"Until that time," reports Butts (1939)

"the curriculum was guided largely by the same interests as at Harvard, namely, to raise up an educated clergy for leadership in the church and state and to provide a liberal education for others who were destined to join in the aristocracy of society" (p. 64).

Yale and Other Colonial Colleges, and Other Early Curricular Developments

Yale, America's third colonial college was established in Connecticut in 1701 largely as a result of a conservative reaction against the growing liberal doctrine at Harvard, but its aim remained essentially the same: wherein youth may be instructed in the arts and sciences, who through the blessings of Almighty God, may be fitted for public employment, both in church and civil state (Butts, p. 64). The president of Yale in 1743, once admonished his students by stating: "The great End of all your studies is to obtain the Clearest Conceptions of Devine Things and to lead you to Saving Knowledge of God in his Son Jesus Christ" (Brook, 1974, p. 70).

During most of the eighteenth century, Yale's curricular development largely paralleled that of Harvard; the original course was changed

gradually in the direction of the new science and philosophy, or "new learning" which changed man's concept of God as well as his understanding of himself. Scholasticism and deductive method were seriously challenged by empirical approaches to knowledge, exemplified by the thought of Newton, Locke, and in particular of Copernicus (Butts, p. 64; Rudolph, 1977, p. 29; Mattfeld, p. 533).

By 1779, Locke's Essay concerning Human Understanding and books on algebra, trigonometry, and English grammar had been added to the usual required texts (Butts, p. 65).

"The curriculum could not exclusively be an instrument in the service of God or of Church and State, as the founders of Harvard and Yale had intended. Because they were colleges, the tools for fulfilling their purposes were the liberal arts and sciences, that whole, inherited, vital body of learning that had a life and purpose of its own. Whether they liked it or not, the colonial colleges were burdened with perpetuating 'the learning and culture of Europe'" (Rudolph, 1977, p. 28).

Several other colleges that sprang up during the colonial period, followed the traditional attitude of the earliest colleges and were found largely for religious purposes:

In 1746, the Presbyterians founded Princeton (at first called the College of New Jersey); in 1764, the Baptists founded Brown (formerly the College of Rhode Island); and in 1776, the Dutch Reformed Church founded Rutgers (Queen's College); and in 1769, the Congregationalists founded Dartmouth. These denominational colleges gradually opened their doors to students of other denominations as the conception of higher education widened and as economic pressure showed the need of admitting more students in order to meet expenses. However that may be, their histories up to the Revolution show little radically different from that of the earlier religious foundations (Butts, p. 66).

University of Virginia--1824

As Thomas Jefferson was the guiding light of the reform of William and Mary, so, was he instrumental in the founding of the University of Virginia in 1824. Jefferson's vision of universal enfranchisement depended on an educated populace and freedom of choice; the University of Virginia reflects this vision: The cornerstone of the University of Virginia was the principle that the student was to have complete freedom of choice in the lectures he chose to attend (Butts, p. 91; Mattfeld, p. 534; Brubacher and Rudy, p. 81).

The university embraced eight schools (ancient language, modern languages, mathematics, natural philosophy, natural history, anatomy and medicine, moral philosophy and law) each entirely independent of the others, and they covered virtually the same broad fields of study that Jefferson proposed for William and Mary in 1779.

Each school was an independent operation, beginning with a single professor but capable of developing a staff and differentiating itself into departments. Each school was assigned to a particular location in the architectural scheme which Jefferson provided for the university. Each school had the capacity to expand indefinitely, as the growth of knowledge in its area of learning demanded and as funds were made available (Rudolph, 1962, p. 125).

Students at Virginia were free to elect work in any school or schools they wished. A student was simply a student, he was not a freshman, sophomore, junior, or senior, and he enjoyed free choice as to the structure, content, and pace of his choice of study. The university awarded no degrees (general degrees were abolished in favor

of specialized diplomas) each school gave its own diploma which recognized completion of a certain body of work. To secure a diploma from a school, the student had to take all the prescribed subjects in that school and write a final examination when he was ready (Mattfeld, p. 534; Rudolph, 1962, p. 126; Butts, p. 93).

Jefferson made the first comprehensive attempt in America at reform of the classical curriculum and the traditional university. He saw higher education as an enlightened balance between the theoretical and the practical, between preservation of the past and preparation for the future (Mattfeld, p. 534).

"Jefferson constituted a design for a university at a time when the country had not yet come to grips with what a college was. His rationale clearly revealed that he understood the difference between an American college as then constituted and a continental university; his plans for the University of Virginia were a curious blending of both, the paternalism of the former combining with the freedom of the latter . . ." (Rudolph, 1977, p. 81).

Seven years after its inception, the university was unable to hold to this scheme of things for long. By 1831 it had capitulated to tradition and was offering a degree for successful completion of work in the schools of ancient languages, mathematics, natural philosophy, chemistry, and moral philosophy--the subjects covered what was everywhere becoming the standard classical course of study. But even in retreating the university asserted its individuality: It thought well enough of itself to award the M.A. degree instead of the traditional B.A. Whether the work at Virginia was actually of M.A. rather than B.A. quality is doubtful, but the intentions of the university were clearly honorable, if somewhat ambitious (Rudolph, 1962, p. 126, and 1977, p. 82).

The Yale Report of 1828

The Yale Report of 1828 was a manifesto which set the pattern for both the theory and practice of the higher learning in America for most of the nineteenth century. The first half of the nineteenth century was a period of considerable debate and discussion concerning the unique function of the American college and its fitness to serve American life. The educational fraternity began to divide roughly into two factions: those conservative who wished to retain the traditional college virtually as it was handed down from the past; and those reformers, or progressives, who felt that the American college was falling too far behind the pace of American life and too much out of touch with the realities of American society (Rudy, 1960, p. 1: Butts, p. 116).

By September 1827, the tide of academic reform was lapping at the precincts of Yale College, and by September 1828, the Yale corporation appointed a committee to inquire into the expediency of so altering the regular course of instruction in this college, as to leave out of said course the study of the "dead languages," substituting other studies therefor: and either requiring a competent knowledge of said languages, as a condition of admittance into the college, or providing instruction in the same, for such as shall choose to study them after admittance (Brubacher & Rudy, p. 102; Rudolph, 1977, p. 66).

The Yale Report, under the leadership of President Jeremiah Day and James L. Kinglsey, was published in 1829 in Benjamin Silliman's American Journal of Science and Arts as "Original Papers in relation to a Course of Liberal Education," which was widely distributed and

widely read. The Yale Report, as it came to be known, provided a rationale and a focus for comprehending a course of study that was wandering somewhere in the no-man's land between inflexibility and disintegration. The Yale faculty believed that proper college instruction should emphasize the "intellectual ability" of students rather than the amount of knowledge that they acquired, that certain studies were best suited to develop this intellectual power, and that experience had plainly shown that these subjects which were necessary for a liberal education would serve as a preparation for any sort of lifework (Brubacher and Rudy, p. 103; Butts, 119).

Defenders of such a rationale held that a college student must pursue a full range of prescribed studies over the entire four-year undergraduate course. This was necessary so that the mind could be properly disciplined and thus prepared to face whatever tasks it might later be required to undertake. The undergraduate obviously could not select these all important studies for himself; he was too young and immature to do so. The faculty accordingly, had to make this selection for him. Fundamental, of course, was knowing what one was up to, and therefore the professors restated the ancient psychology of learning which saw the mind as a receptacle and a muscle with various potentialities waiting to be trained (Rudy, p. 2; Rudolph, 1962, p. 132).

The two great points to be gained in intellectual culture, are the discipline and the furniture of the mind; expanding its powers, and storing it with knowledge. A commanding object, therefore, in a collegiate course should be, to call into daily and vigorous exercise the faculties of the student. Thus, while mental discipline was the

main concern of the Yale Report, the question of what worthwhile content was to be learned was a vital one. What was the right furniture with which to "store" the undergraduate mind? The Yale faculty held that the classics of Greece and Rome and pure mathematics were facile princeps, equally valuable for content as for discipline, because they provided a broad theoretical foundation for all later specialization. If the student did not have a chance to come into contact with these intellectually stimulating fields while in college, at what other time in his life would he have a chance to do so? This philosophy decreed that knowledge which could just as easily be gained outside of college should be excluded from the undergraduate curriculum. This meant that all specialized studies of a professional nature were relegated to special schools or were to be learned through actual practice and apprenticeship (Crane, 1963, p. 85; Rudy, p. 2).

The influence of Yale, on the course of study of other colleges was often direct and transparent: Wabash College of Indiana was an echo of the Yale Report; Western Reserve of Ohio adopted a curriculum avowedly in order to be "the Yale of the West" (Rudolph, 1977, p. 73).

The ideal of mental discipline was continued at Yale under the presidency of Theodore D. Woolsey (1846-1871), thus, by virtue of being the largest college in the country, Yale's leadership in formulating the ideal of mental discipline as the proper objective of the American college took on the aura of authority for the conservatives of the country (Butts, p. 124).

The Yale faculty of 1828, recommended as a model curriculum four years of what is presently called "general education," but with a much

narrower range of studies than is true at present. Not only was the spectrum of liberal learning severely limited, but all opportunity for specialization was to be excluded as inappropriate to collegiate learning. All studies were prescribed for all students because this was presumed to be valuable for disciplining the mind and for giving the undergraduate the requisite broad theoretical perspective characteristic of a liberally educated person. The Yale Report bolstered the spirits of defenders of the academic status quo and gave them an explicit philosophy to uphold. For the next half century this report would articulate for American educators the dominant conceptions of the role of the liberal arts college and the types of curriculum appropriate to it (Rudy, p. 5).

The Morrill Land-Grant Act of 1862

"The institution that did probably the most to change the outlook of the American people toward college-going was the land-grant college, creation of the Morrill-Federal Land Grant Act of 1862" (Rudolph, 1962, p. 65).

The act itself provided for the support in every state of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life (Crane, p. 190).

Because the act provided nothing in the way of supervision and because the concept of agricultural and mechanical education had not yet received any precise definition, the founding of the new colleges revealed an amazing variety of arrangements. For example, Michigan, Pennsylvania, Maryland, and Iowa, created A & M colleges (as they came to be known) out of previously chartered agricultural colleges. Wisconsin, Minnesota, North Carolina, and Missouri turned over to existing state universities both the land-grant endowment and the responsibility of discovering how to serve the agricultural and mechanic interests. Four states--Ohio, California, Arkansas, and West Virginia--founded new state universities and added A & M components. The colleges, so sired, emphasized the laboratory method and concentrated on the sciences, especially the applied sciences, required by agricultural expert, civil and mechanical engineers, and managers. In time every state would have its land-grant foundation, and seventeen of them would have two (Rudolph, 1962, p. 253, and 1977, p. 117; Mayhew, 1975, p. 368).

When a second Morrill Act was passed in 1890 providing for regular annual appropriations for the land-grant colleges, the act stipulated that no appropriations would go to states that denied admission to the colleges on the basis of race unless they also set up separate but equal facilities.* As a consequence of these conditions, a number

*In 1896, "separate but equal facilities" was a supreme court ruling in the racial segregation case of Plessey v. Ferguson, 163, U.S. 537 (1896). Plessey did not involve the schools; the issue arose under a Louisiana statute requiring segregated railway accommodation for travel within the State. The U.S. Supreme Court held that the state law did not violate either the Thirteenth Amendment (prohibiting involuntary servitude) or the Fourteenth Amendment. Despite the fact that the case was confined to intrastate railway accommodations, the decision was used to support the notion that 'separate but equal' school facilities for black pupils were consistent with constitutional principles (William R. Hazard. Education and the Law. 1971, p. 123).

of Negro land-grant colleges were founded. Seventeen southern states ultimately established land-grant colleges. Southern legislatures and state departments of education were not overly friendly to these land-grant institutions. They insisted on keeping them purely as trade schools, and opposed any offering of liberal arts program in them. In one Negro state college, the only way that Latin could be smuggled into the curriculum was by offering it under the title of 'Agricultural Latin' (Rudolph, 1962, pp. 253-254; Brubacher and Rudy, 1958, p. 79).

The Creation of Cornell University--1868

Through the land-grants of the Morrill Act, Cornell University at Ithaca, New York in 1868 was founded under the leadership of Ezra Cornell, and its first president Andrew D. White. It was Cornell University that helped to achieve respectability for the land-grant idea; in its outlook not only the practical vocationalism of the land-grant idea but also the science, technology, and spirit of scholarship of the new university movement (Rudolph, 1962, p. 265-66).

From the day it opened its door, Cornell constituted the very embodiment of the idea of an 'all purpose curriculum.' "I would found an institution in which any person can find instruction in any study" was the catchword that was placed upon its seal of the university (Butts, p. 187). It began by laying down two foundation principles: first, the new university was to be completely nonsectarian, although not antireligious; secondly, it was to be in much closer relationship with the public-school system than was true elsewhere (Brubacher and Rudy, 1958, p. 162). Furthermore, there should be perfect equality among the different courses of study with no special privileges for particular

subjects and with greater emphasis than previously upon scientific, political, historical, and modern literary subjects; also an opportunity for the student to select the courses in which he desired to specialize (Butts, p. 186).

Cornell wished to find an institution

". . . which will place at the disposal of the industrial and productive classes of society, the best facilities for the acquirement of practical knowledge and mental culture, on such terms as the limited means of the most humble can command.

I hope we have laid the foundation of an institution which shall combine practical with liberal education, which shall fit the youth of our country for the professions, the farms, the mines, the manufactories, for the investigations of science, and for mastering all the practical questions of life with success and honor.

I believe we have made the beginning of an institution which will prove highly beneficial to the poor young men and the poor young women of our country . . . as will enable any one by honest efforts and earnest labor, to secure a thorough, practical, scientific or classical education. The individual is better, society is better, and the state is better, for the culture of the citizens; therefore we desire to extend the means for the culture for all" (Levine, 1978, p. 560).

Coeducation, rather than separation, came to be the pattern at Cornell; the first in the East, was an immediate success, sending new waves of uncertainty and nervousness through the old colleges (Brubacher and Rudy, 1958, p. 69).

The Inauguration of Charles W. Eliot as President of Harvard: 1869

During the forty years of Eliot's administration (1869-1909), President Eliot supplied a long continuing advocacy of the elective principle and an energetic administrative leadership which enabled Harvard eventually to boast of the freest elective system known to the American college (Butts, p. 175).

However, long before Eliot introduced his elective system at Harvard, prominent Americans had been advocating the granting of a larger element of choice in college studies. Perhaps the most important of the early advocates of electives was Thomas Jefferson and the establishment of the University of Virginia in 1824. "The corner stone of Virginia plan was the principle that the student was to have complete freedom of choice in the lectures he chose to attend" (Brubacher and Rudy, 1958, p. 99).

At Harvard, it was Thomas Hill (1862-1869) who advocated the use of the elective principle. "Consequently, the elective principle received warm advocacy during the formative years, but the financial resources of the college were as yet too inadequate and the opposition still too strong to allow than, a formulation of the doctrine and the beginnings of the elective system on a scale larger than ever before" (Butts, p. 173).

To make possible a vital and complete use of the elective system, it took the energetic and effective administrative leadership of Charles W. Eliot, a thirty-five-year chemist who was elected President of Harvard in 1869 (Brubacher and Rudy, 1958, p. 110). Eliot took up the plans of Hill's administration to make Harvard a 'real' university, and he carried them forward by means of a most effective administration policy and by advocating forcefully the new ideal of a university which embodied a drastic change in the traditional theory of a liberal education (Butts, p. 175).

In Eliot's inaugural address of 1869, he chose to announce his firm commitment to the elective system: In American higher education

the individual traits of differing minds had not been taken into account sufficiently. For the individual, the only prudent course was the highest development of his own peculiar faculty. It was for this reason that Eliot held to the view that a true university college should give its students three essentials: First, freedom of choice in studies, second, opportunity to win distinction in special lines of study; and finally a system of discipline which imposes on the individual himself the main responsibility for guiding this conduct (Brubacher and Rudy, 1958, pp. 110-112).

Also, in his inaugural address, Eliot stated emphatically that the current controversy over whether literature or science was more important for a general education should have no place at Harvard, because it was the duty of a university to provide instruction in all of the main subjects of interest, general and specialized (Butts, p. 176).

"This university recognizes no real antagonism between literature and science, and consents to no such narrow alternatives as mathematics or classics, science or metaphysics. We would have them all, and at their best" (Levine, 1977, p. 562).

Step by step under Eliot's leadership Harvard abandoned prescription and expanded the domain of election. In 1872 all subject requirements for seniors were abolished. In 1879 all subject requirements for juniors were abolished. In 1884 the sophomores were liberated, and in 1885 subject requirements were materially reduced for freshman. By 1894 a Harvard freshman's only required courses were rhetoric and a modern language. By 1897 the prescribed course of study at Harvard had been reduced to a year of freshman rhetoric (Rudolph, 1962, p. 294).

The introduction of many types of courses, made necessary by a system of electives, increased the demand for teachers. At Harvard

in 1870-71, there were 643 undergraduate students and 73 courses offered by 32 professors. In 1910-11, the corresponding figures were 2,217 students, 401 courses, and 169 professors (Ben-David, 1972, p. 57).

Eliot's innovation thrived and for a while seemed to be a happy answer to the question of a meaningful course of study. However, complete free choice without careful academic advising could not long survive student exploitation. When studies of student course choices under the Eliot system were finally made, it was discovered that over half of the class of 1898 had taken one course above the introductory level (Mattfeld, 1975, p. 536).

The Harvard undergraduate had become an intellectual dabbler, and thus during the presidency of A. Lawrence, who succeeded Eliot, the distribution-concentration pattern, was introduced in order to reestablish some control over the curriculum (Mattfeld, 1975, p. 536).

Historical Overview of Contemporary American Curricular Developments: 1919-1973

In the nineteenth century Eliot's elective principle emphasized specialization rather than prescription and integration. To restore some comprehensiveness, Lowell, in the early twentieth century, required the student to distribute his electives over a wide sampling of subjects at the same time that he was permitted to retain a generous share of time for concentration on one of them.

The history of the curriculum, remarked Brubacher and Rudy (1958) thus had taken the form of a vast Hegelian triad wherein the thesis in the early nineteenth century had been prescription, the antithesis

in the later nineteenth century had been election, and the synthesis in the twentieth century had been concentration and distribution (p. 276).

By the start of the twentieth century, commented Levine (1977), the fundamental changes in higher education that had occurred during the nineteenth century--utilitarianism and populism, to name but a few--were assimilated and the modern American conception of undergraduate education had emerged (p. 329).

The period between the turn of the century and the start of World War I found the free elective curriculum waning in popularity (Butts, pp. 231-250). By the time of that war, reported Levine (1977) the undergraduate program was similar to today's blend of free electives, breadth requirements, and concentration. It was also attacked on the same ground as today's curriculum--for its lockstep approach, overspecialization, eclecticism, and general lack of integrity (p. 329). The curriculum was only a cross section of courses from specialized and usually unrelated departments. The mere addition or juxtaposition of such courses without any effort at bending them to each other and toward some broad central aim was mechanical at best. Hence, the kind of synoptic integration characteristic of liberal education went by default (Brubacher and Rudy, 1958, p. 276).

Blame for the lack of unity was initially laid at the door of the colleges and their multiplication of courses in the curriculum. The critics, remarked Levine (1977) suggested four remedies, all called "liberal education," they were, more specifically, general education, collegiate education, experimental or life education, and honors and independent study (p. 329). As early as 1902, reported Brubacher and

Rudy (1958), John Dewey was pointing out that congestion in the curriculum stemmed not from faulty pedagogical organization but from rapidly expanding knowledge of the arts and sciences (p. 276). Mattfeld (1975) added that Dewey saw learning essentially as a relative process, with each student using the rich heritage of the past, embodied in the humanistic disciplines, and his observations of the world around him, provided by the physical and social sciences as resources with which to respond to the specific experiences and problems with which he himself was faced (p. 537).

Between the end of World War I and the start of World War II, liberal education remedies were most notably realized in the new programs and institutions that wanted to break away from the lockstep curriculum that prevailed prior to World War I. For example, there was Contemporary Civilization course at Columbia University in 1919, where "war" and "peace" issues merged to form Contemporary Civilization, or "CC" as the course became known, where the purpose was to inform the student of the more outstanding and influential factors of his physical and social environment (Levine, 1977, p. 331). The course was heavily oriented toward history, and advanced the proposition that there is a certain minimum of intellectual and spiritual tradition that a man must experience and understand if he is to be called educated (Rudolph, 1962, p. 455). There was the Honors Program at Swarthmore College in 1921 under President Frank Aydelotte, where he introduced the "Honors Program" where the most brilliant students could develop to their fullest capacity. The Honors Program was intended for those juniors and seniors most able to profit from intensive independent study who were certified

by their lower-division instructors as capable of carrying them (Rudolph, 1962, p. 457). The heart of the Honors Program was the colloquium, the dialogue between faculty and students (Brubacher and Rudy, 1958, p. 274).

In 1927 there was Alexander Meiklejohn's experimental college at the University of Wisconsin. Professor Meiklejohn was particularly concerned that the experimental college should be a democratic college representing a cross section of the general run of students and not a highly selected few. He felt, among other things, the college must try to answer the question whether or not young people as a whole could be liberally educated (Butts, p. 353). His plan called for a two-year, lower-division experimental college (in the letters and science division of the university) that would come to grips with the old problem of student motivation. The curriculum was an integrated program intended to give students a sense of unit of knowledge and experience. It focused on problems or themes in the creation and conservation of human values in two important cultures--ancient Greece and contemporary America. An emphasis upon writing pervaded the curriculum (Levine, 1977, p. 345).

The Great Books at St. Johns College in Annapolis in 1937, under the guidance of Stringfellow Barr and Scott Buchanan, introduced a prescribed, four-year undergraduate curriculum for all students based entirely upon a little more than a hundred great books covering the development of civilization from ancient Greece to the present. The curriculum emphasized the trivium (grammar, rhetoric, and logic) and quadrivium (arithmetic, music, geometry, and astronomy) of classical antiquity. It was shaped by the conviction that students can acquire

a truly liberal education by only reading the works of the greatest minds of our civilization. The Great Books program did away with the standard fare of academic departments and student majors. At its heart was the seminar (Levine, p. 357).

During and after World War II, curriculum changed focused more specifically upon general education. General education, remarked Brubacher and Rudy (1958) however, was not so much a synonym for liberal education as it was a way of organizing it. As a facet of liberal education, general education developed two dimensions. On the one side it faced the great proliferation of subjects and tried to determine what everyone ought to know regardless of departmental organization. On the other, it tried to interrelate subjects into something meaningful (p. 276). Though many colleges wrote reports and adopted new curricula, the most influential and best known curriculum was that adopted at Harvard as a result of a volume entitled General Education in a Free Society.

Of the many efforts of colleges to reassess their undergraduate programs, Harvard in 1945, under the presidency of James B. Conant, appointed a faculty committee on "The Objectives of a General Education in a Free Society." The committee spent \$60,000 and two years in deliberation, travel, and hearings. Its final report, entitled General Education in a Free Society and informally called the "Redbook" (Levine, p. 359).

Once the Harvard committee issued its report, it represented an effort on the part of the nation's greatest university to confront the social and political forces of mid century America and to write a prescription for sustaining the liberal tradition with a curriculum

that recognized the legitimacy of individual interests and talents while it at the same time established a common bond of general learning (Rudolph, 1962, p. 258).

According to the "Redbook," general education was distinct from education for specialization. It embraced the humanities, natural sciences, and social sciences:

General education . . . is used to indicate that part of a student's whole education which looks first of all to his life as a responsible human being and citizen; while the term special education indicates that part which looks to the student's competence in some occupation (Levine, 1977, p. 603; Rudolph, 1962, p. 258).

The committee of the "Redbook" recommended that 6 out of the 16 year-long courses that the college required for graduation be reserved for general education. It recommended further that courses in the humanities and social sciences entitled respectively "Great Texts in Literature" and "Western Thought and Literature," be required of all students. The sciences, students would be given an option between two introductory courses in the physical sciences or biological sciences. The remaining three general education courses would be taken, one each, in the humanities, social sciences, and sciences, where advanced survey and interdisciplinary courses such as the heritage of philosophy, music, human relations and the history of science would be offered. No general education courses were to be permitted to satisfy major or concentration requirements. The committee further recommended changing Harvard's English composition course so that the first term would be a compensatory course and a second term, which was to be tied to the general education courses, would be required of all students (Levine, 1977, p. 360).

Another landmark in the development of higher education after World War II was President Truman's Commission on Higher Education in 1947, under the chairmanship of George F. Zook, President of the American Council on Education, to re-examine our system of higher education in terms of its objectives, methods, and facilities, and in light of the social role it had to play.

The committee, reported Brubacher and Rudy (1958) was formed partly to the powerful bodies of opinion calling for a program of much more extensive and direct federal financial aid to colleges and universities. In part, this discontentment was due to the leaping costs of higher education, especially in the 1940s. In part, it was motivated by the necessity for tremendous expansion of physical facilities in order to meet huge increases in enrollment which followed the First and Second World Wars. An underlying factor, too, was the fundamental American commitment to the maintenance of equality of educational opportunity as an underpinning of political and economic democracy. As American society reached new levels of complexity, many felt that the democratic opportunities for an education, which had been well-nigh universal on the elementary and secondary levels, should now include post-secondary training (p. 239).

This post-secondary training was the general belief in the values of studying the liberal arts and sciences, particularly as reinterpreted in programs of general education. It was generally assumed that there was a body of information, skills, values, and insights that all educated people should possess. Although the literature of the period revealed considerable difficulty in reaching agreement as to a specific definition

of general education, examination of many different programs indicated a firm underlying consensus. General education should be required of most if not all students. It should expose students to the natural sciences, social sciences, humanities, and the several modes of communications. It should give the student the values, attitudes, knowledge, and skills that would equip him or her to live rightly and well in a free society. It was specifically designed to provide students insight into the cultural heritage, so that each individual could base his or her own life on that cultural substructure (Mayhew, 1977, p. 9).

The main proposal of the commission, reported Brubacher and Rudy (1958) was that all barriers to educational opportunity be abolished immediately. Every American should be 'enabled and encouraged to carry his education, formal and informal, as far as his native capacities permit. In order to attain this objective the commission proposed that the nation plan to double its enrollment in colleges and universities within a decade. By 1960, it conceived of a potential enrollment of 4,600,000 in institutions of higher education (p. 239). The reason for this projection, commented Cross (1971) was the commission's estimate that 'at least 49 percent of our population has the mental ability to complete 14 years of schooling,' and 'at least 32 percent of our population has the mental ability to complete an advanced liberal or specialized professional education (p. 3). The commission assumed that the great majority of individuals with these potentials would ordinarily wish to pursue advanced study, but that many are prevented from doing so by economic handicaps, or by racial, religious, and geographical barriers (Brubacher and Rudy, 1958, p. 240).

To overcome this handicap, remarked Brubacher and Rudy (1958) the commission proposed, first of all, that the American system of free public education be extended upward to include two more years of study beyond the higher school. Every state should establish 'community colleges' as part of its public-school system to provide easily accessible free education through the sophomore year. These local institutions would emphasize terminal programs in their course of study, but they would also prepare some students to go on to higher levels (p. 240).

Curriculum change acquired another theme in 1957 with the launching of Russia's Sputnik. Levine (1977) reported, many viewed this space breakthrough as a Russian triumph over the intellectual and educational capacity of America. Curriculum reform in succeeding years emphasized intellectual excellence and acceleration of study. Oakland University in Michigan (1959), for example, was founded in the spirit (p. 330). With Russia's successful launching of Sputnik, it also led to the National Defense Education Act of 1958. The essential purpose of the National Defense Education Act, remarked Mayhew (1977) was to produce an educational program from which could come the scientific, technological, and scholarly leadership needed to catch up with the advances in Russian science (p. 273).

During the expansionist period of the 1960s, reported Mayhew (1977), a variety of curricular and instructional innovations were attempted . . . (p. 120). Suczek (1972) and Lichtman (1973) adds, residential colleges, cluster colleges, colleges without walls, contract programs . . . were being developed in increasing numbers (pp. vi-vii; p. 8). Tussman's Experimental College Program at the University of California at

Berkeley in 1965 was an example of the expansionist period. Tussman, then Chairman of the Department of Philosophy at Berkeley, reported Levine (1977) and Riesman et. al. (1970), was disgusted with what he perceived to be the incoherence and lack of educational integrity of lower-division study there, sought to reintroduce the experimental college that Alexander Meiklejohn had tried at the University of Wisconsin more than 30 years before (p. 373; p. 277). Tussman's Experimental College Program remarked Suzcek (1972), was more than another curricular innovation. It was a statement of the need to revitalize the lower division of the university, and as such it was a reassertion of a basic but neglected function of liberal education (p. 17).

Education in the 1960s was also big business. Litchman (1973) reported:

By the end of the decade, 62 million Americans were engaged in a \$70 billion enterprise. Colleges and universities had one-eighth of the total number of students and spent one-third of the total education budget. The annual expenditures of colleges and universities rose four and a half times in ten years.

In a time when the expenditures quadrupled, student enrollments doubled. In 1960, 3.6 million people enrolled in 2,000 colleges; by 1970, 7.3 million attended 2,525 institutions of higher learning. The size of public colleges especially got larger. Community colleges were opening at the rate of about one a week. By the end of the sixties, almost half of the college students attended only 200 institutions, each having more than 10,000 students. (p. 7)

Whereas the predominant mood of the 1950s were concordant and the 1960s was a period of growth and wealth, the 1960s was also a time of change and disillusionment. Student activism, beginning with the 1964 Free Speech Movement at the University of California at Berkeley, began to make inroads to change, what Suzcek (1972) described as:

. . . the machine like aspect of undergraduate education, especially in the lower division, which purportedly ground up succeeding generations of freshman into unthinking but well-trained cogs to fit the needs of our contemporary technological society. Other qualities under attack were irrelevance of course study material in the face of contemporary social problems and the lack of opportunity for the student to pursue his own academic interests. These factors were believed compounded by the impersonality of large classes and a general lack of professional interest; in students as students, in students as individuals, and in the teaching process itself (p. 3).

Student activists, remarked Lon Hefferlin (1969), believed that institutions of higher education as a whole were not sufficiently in touch with the conditions of life in the circumambient society (p. xi). As at Berkeley, added Levine (1977), the causes of campus unrest were frequently noncurricular, but the resulting soul searching brought to light student dissatisfaction with the post-Sputnik mentality and curriculum that emphasized the needs of society but failed to consider the needs of the individual student (p. 371).

This perception, reported Suczek (1972), was vocally and stridently stated by activists, and if it was not shared, at least it was given official recognition by many students and by many members of the faculty. It was epitomized in a speech by Mario Savio (1964) to a Free Speech Movement rally:

"There is a time when the operation of the machine becomes so odious, makes you so sick at heart, that you can't take part, you can't even tacitly take part, and you've got to put your bodies upon the gears and upon the wheels, upon the levers, upon all the apparatus, and you've got to make it stop. And you've got to indicate to the people who run it, to the people who own it, that unless you're free, the machines will be prevented from working at all" (quoted from Suczek, 1973, p. 3).

Savio's speech was echoed five years later by Jerry Farber, a faculty member in the English Department at Los Angeles State College

when he decided that there were limits to how well you could teach in an authoritarian and dehumanized school system:

"School is where you let the dying society put its grip on you. Our schools may seem useful: to make children into doctors, sociologists, engineers--to discover things. But they're poisonous as well. They exploit and enslave students; they petrify society; they make democracy unlikely. And it's not what you're taught that does the harm but how you're taught. Our schools teach you by pushing you around, by stealing your will and your sense of power, by making timid square apathetic slaves out of you--authority addicts.

Students can change things if they want to because they have the power to say 'no.' When you go to school, you're doing society a favor. And when you say 'no,' you withhold much more than your attendance. You deny continuity to the dying society; you put the future on strike. Students can have the kind of school they want--or even something else entirely if they want--because there isn't going to be any school at all without them" (The Student as Nigger. 1969, p. 17).

The student protests of the late 1960s and early 1970s also contributed to curricular changes. Those protests, commented Mayhew (1977), did at least by implication, call for greater curricular relevance; lessened impersonality of faculty, administration, and institutional behavior toward students; greater curricular flexibility; greater freedom of individual student choice, greater student voice in planning their own education; greater curricular and instructional concern with social, economic, moral, and ethical values (pp. 124-125).

The late 1960s and early 1970s was also a time when attempts to use the curriculum to meet the needs of specialized groups of people. Institutions of higher education gradually accepted more Chicano and black students, and some predominantly white institutions actively recruited these students. However, little was attempted to provide special curricular or instructional services for these students. It was typically assumed that Chicano and black students would become

assimilated into the predominantly white student bodies and that the responsibility for coping with the educational programs rested with these students. As the number of Chicano and black students increased on campuses, the stage was set for criticism of curricular and social divisions and for demands that substantial modifications be made. The creation of Chicano and black student unions stemmed directly from the increase in their numbers on campus, and their increase in produced pressures for Chicano and black studies, increase in Chicano and black faculty members, and increased financial aids for Chicano and black students. The model established by Chicano and black students eventually came to be adopted by Asian Americans, Native Americans, and ultimately, in a paradoxical sort of way, for women (Mayhew, 1977, pp. 126-127).

The nationwide student strike in reaction to the U.S. invasion of Cambodia and the shootings at Kent State and Jackson State universities in spring 1970, remarked Levine (1977), closed the 1960s era of campus unrest. Since that time, campus protests have continued, but their causes have more often been bread-and-butter issues such as rising tuition, faculty layoffs, and program cutbacks. The 1970s marked the end to visions of limitless growth for American colleges and universities now faced with the day-to-day realities of tight budgets and a ceiling or decline in student enrollments (p. 372).

The impetus for change in the 1970s (Levine, 1977), has come from administrators at institutions suffering from financial or enrollment declines, from public systems responding to perceived new needs, and from organizations not traditionally associated with higher education, such as brokerage organizations and proprietary schools. Some

curriculum changes have been primarily procedural, concentrating on more efficient delivery systems and the measurement of educational outputs (p. 372). Others, reported Hall (1974) have tried to attract or respond to a new variety of students--minorities, blue-collar youth, and women (p. xiii).

Hall (1974) reported that sixteen new colleges emerged during the late 1960s and early 1970s for students, who, then had been largely excluded. Some of these new colleges included: Flathead Valley Community College in Montana (1967), Nairobi College in California (1968), La Guardia Community College in New York (1970), Westbrook College in Maine (1970), and Universidad Deganauidah-Quetzalcoatl in California (1971). Hall (1974) commented: ". . . these colleges can be seen as not only important in their own right but as laboratories for the discovery and examination of the needs of new students and as testing grounds for examination for long-standing assumptions about education" (p. xiv).

Still others, remarked Levine (1977), have involved the development of vocational curricula and community-based educational assistance centers. Some of the outstanding developments of the decade have involved the award of degrees by proprietary schools such as the Technical Career Institutes in New York (1970), the creation of such nontraditional adult colleges as Metropolitan State University in Minnesota (1972), the development of competency-based curricular at Sterling College in Kansas (1971), and the rise of brokerage organizations like the Capitol Higher Education Service in Connecticut (1973), (p. 327).

A number of curriculum changes have traversed the moods of both the 1960s and 1970s. The range of results from these curriculum changes has been wide. Some institutions and programs are flourishing; others are no longer in existence.

OVERVIEW OF METHODOLOGIES AND CURRICULAR
TRENDS: EARLY AND CONTEMPORARY CATALOG STUDIES, 1886-1976

It was the controversy of the elective principle in undergraduate education during the years from approximately 1870 to 1910 that gave rise to catalog studies, or ". . . 'fact finding' investigations concerned with the actual spread of the elective system as a part of the accepted procedure in building and administering the collegiate course of study in the United States" (Butts, 1939, p. 239).

Among some of the early fact finding investigators who were concerned with the actual spread of the elective system, Palmer (1886) used a chart showing the increase in elective studies in 15 New England colleges from 1875 to 1885 when he was explaining and defending the use of the elective system at Harvard. He concluded: (1) A rapid and fateful revolution is going on in the higher education of New England. (2) The spread of it is in tolerable proportion to the wealth of the college concerned. The new modes are expensive. (3) The colleges which long ago foresaw their coming necessities have been able to proceed more cautiously than those which acknowledged them late. (4) The movement is one of steady advance. There is no going back (p. 581).

The U.S. Bureau of Education's annual reports after the 1880s began to publish detailed subjects offered by colleges and universities. The 1888-1889 annual report listed the subjects taught in 101 colleges and universities, with the elective subjects written in italics (pp. 1224-1361).

Brigham (1897) published a report in which he studied the catalogs of 25 colleges for 1895-1896 to determine the extent of the acceptance of the elective system: "The noteworthy fact to-day is the immense

diversity, amounting almost to chaos, seen in the application of the elective system by American colleges. This diversity does not mean that the plan is not good, but rather that it is alive" (p. 360). Brigham found the 25 institutions to be divided roughly into three groups: Those requiring the greatest number of subjects, especially in the freshman and sophomore years, were Columbia, Yale, Williams, Hamilton, Colgate, Rochester, Rutgers, and Union; those allowing a considerable amount of election were New York University, Pennsylvania, California, Northwestern, Michigan, and Chicago; and those allowing the greatest amount of election were Harvard, Cornell, and Stanford (pp. 364-366).

Another study of the elective system was undertaken by Professor Phillips of the University of Denver in 1901, which Butts (1939) comments, . . . was the most exhaustive investigation of the spread and extension of the elective system up to that time (p. 240). Phillips based his conclusions on the inspection of eighty-seven college catalogs, on 97 questionnaires filled out by college presidents, and on considerable direct correspondence with colleges throughout the country. "An estimate of ninety-seven replies gave an average of about sixty-four per cent of all work as elective, while a wholly independent examination of eighty-seven catalogues gave an average of about sixty-two percent" (Phillips, p. 212). He found such a great variety of arrangements among the different institutions, he remarked, "We should no longer speak of the Elective System, but of Elective Systems: (p. 211).

The main body of Phillips' study dealt with the summaries of answers made by the 97 college presidents in reply to his questionnaire in which he had asked a series of questions (13 in all) concerning the

present extent of the use of the elective system, how long it had been in use, and whether or not it was workable and advisable as part of the college education (p. 207). He found that:

"Thirty-four institutions have 70% or more of their work elective; twelve have at least 50% and less than 70%; fifty-one have less than 50%. Princeton and Brown universities are the most striking examples of the better class that have remained largely conservative, and only about 50% of their courses being elective. . . . the lowest ebb of the elective system is now found in the South" (p. 212).

All in all, the study prompted Phillips to conclude:

"The elective system is a fixture so far as our colleges are concerned. The tendency is more and more toward free election. There is no indication as to whether colleges will ever settle upon a small but central core of subjects for all students. Certainly there must be a 'golden mean' somewhere between the prescribed four years of classics and mathematics and four years elective laboratory courses, shop work, dentistry, drawing, music, etc" (p. 218).

Canfield (1905) reported to the forty-fourth annual meeting of the National Education Association a compilation of replies received from thirty-five colleges and universities throughout the country in answer to the question whether or not wide election and narrow courses tended to weaken the undergraduate course by too much specialization. He estimated that a few were for wide election, but he found that the great majority were opposed to excessive free election ". . . you will find a very general consensus of opinion that a student ought not to 'scatter,' and that sound and thoro training ought to preceed every attempt at specialization" (p. 497).

The most extensive investigation of the elective system, reports Butts (1939, p. 243) was made by William T. Foster, president of Reed College, as part of his book published in 1911, on the administration of the college curriculum. Foster's investigation included

twenty-nine state universities, fourteen private colleges including nine women's colleges, and forty small colleges (pp. 168-173). Foster comments, "The chief movement in the history of the college curriculum in America is the breakdown of prescribed programs through the evolution of the Elective System" (p. v). "All in all," comments Butts, "President Foster ranged himself with the progressives in the history of the elective system, and he was convinced in 1911 that the elective principle was here to stay, provided the students were required to do a considerable amount of creditable work in whatever field they chose" (p. 243).

Butts (1939) provides this summary on early fact finding investigations:

"The most obvious conclusions of all the investigations of prevailing opinion and practice of the elective principle seemed to be that it had entered in some form the great majority of American colleges by 1910 and that the form in which it appeared was exceedingly different from one college to another" (p. 239).

Among some of early contemporary fact finding investigators, Rudy (1960) sought to depict trends in the development of the curriculum of American liberal arts colleges as reflected in their published catalogs. His survey included periods between 1825-1875, 1875-1905, 1915-1925, and 1925-1955. However, it was the period of 1905-1955 that Rudy concentrated on . . . in order to carry forward a detailed study of the college curricula in the twentieth century . . ." (Rudy, p. 39). McGrath (in Rudy) comments, "The treatment for the period 1905 to 1955 is much fuller than that for the nineteenth century because curricular changes since 1900 are much more thoroughgoing and are more significant for the present-day pattern of the liberal arts college than those of the preceding era" (p. iv). Dressel and LeLisle (1969) add, ". . . a full

century or more elapsed between first attempts to initiate change in the college and the evidence of any significant impact on prevailing practices" (p. 1).

According to McGrath (in Rudy), his survey began with the year 1825 because it was about that time that the most influential articulation of the ideals of the early American college was published, namely, the Yale Report of 1828 (p. iii). "For the next half century," remarks Rudy, "this report would articulate for American educators the dominant conceptions of the role of the liberal arts colleges and the types of curriculum appropriate to it" (p. 5).

"The period between 1865-1900," comments Rudy, "a number of significant agents and eventualities conspired together to produce the fundamental changes in the college curriculum" (p. 6). Among these "agents and eventualities" were the Civil War, the passage of the Morrill Act, German influence that advanced research methods and specialized scholarship, and Eliot's free elective system. It was these significant agents and eventualities that led Rudy to ask, "What were the actual changes in curriculum which occurred during the years following the Civil War?" (p. 9). In order to answer this question, he selected ten representative institutions (three from the Northeast, three from the South, and four from the Middle West) to study. The catalogs of these colleges were sampled at twenty or twenty-five year intervals for the period 1825-1900 (p. 9). From these catalogs, he collected data on enrollments, faculty, and departments of instruction. (See Table 2:1 on page 52).

In addition to these findings (Table 2:1), he asked, "Are there any other more or less common lines of development characteristic of

TABLE 2:1

Ten Nineteenth-Century Liberal Arts Colleges: Enrollment, Faculty, and Departments of Instruction

Institution	1825			1840			1850			1860			1875			1880			1900-1905		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Columbia College							167	13	12	201	18	13				227	23	10	553	47	18
Hampden-Sidney College	113	5	5				90	5	5				79	5	8				116	9	13
Harvard College	234	12	7				319	13	-				776	42	11				1,748	151	14
Illinois College				40	4	5	34	7	7				55	10	8				65	19	12
Miami University (Oxford, Ohio)	48	4	-				69	9	9				78	5	6				144	13	14
Transylvania (University of Kentucky)	107	6	7				88	6	5				81	8	10				173	8	9
University of Georgia	96	8	-				144	9	9				114	15	11				123	18	14
University of Michigan				53	6	5				204	28	11				425	43	17	1,345	150	32
University of North Carolina	112	9	6				230	11	8				69	5	11				421	52	14
Yale College				550	30	8				521	17	8				612	29		1,332	148	22

A: Enrollment. B: Faculty. C: Departments of instruction.

SOURCE: Rudy (1960) p. 10.

all ten colleges during the period 1825-1900?" He replies:

Decidedly so. For one thing, these schools were all admitting to their curricula many new fields of knowledge, such as modern languages and sciences, that had not been give recognition in earlier days. At the same time, they were permitting their students, to a greater or lesser degree, to elect programs of study--and even individual courses--instead of requiring everyone to follow the same four-year curriculum. More specifically, there was an increasing tendency to allow undergraduates to substitute modern-language studies (especially French and German) for required Greek; to expand prescribed work in English and history; to increase significantly the number of specialized offerings in the natural sciences and to introduce a greater thoroughness and continuity in the treatment of these studies; to assign special phases of applied science, such as surveying and navigation (which had previously been taught in a very summary and superficial manner as part of the required program), to special professional curricula; and, finally, as a natural consequence of the foregoing, to evolve a distinct four-year course in the natural sciences leading to a Bachelor of Science degree (p. 9).

In general, continues Rudy:

The radical reconstruction of the college curriculum during the later years of the nineteenth century must be seen as reflecting the fundamental changes in American culture of the period. A relatively simple rural society was being transformed into a great industrial nation with all the social complexities that follow in the train of such power. The new times necessitated new ways of living and thinking. The watchwords of the era were now progress, competition, and material expansion. Thus, the revolution in the curriculum was produced by a revolution in American life (p. 11).

It was the period 1925-1955 that Rudy carried out a detailed study of college curricula in twenty-eight institutions and their catalogs into the twentieth century and included the period 1915-1925. Each college and its catalogs were examined at ten-year intervals, beginning in 1905 and proceeding through the year 1955. (Six colleges were chosen to represent each of four major sections of the United States, namely, the Northwest, the Midwest, the South, and the Far West). The regional samples, in turn, were subdivided into two groups, comprised of three independent liberal arts colleges and three institutions affiliated with,

or a constituent part of, a large university. In addition, four Roman Catholic colleges were included, one for each section of the country, to represent an important group of denominational schools closely wedded to the liberal arts tradition (p. 39).

Specifically, Rudy investigated the number of separate, functioning departments of instruction, and the number of semester courses offered. The data collected revealed notable increases in both categories over this period. These changes are shown in the tables on page 54, 55, and 56.

The generalizations drawn from these data ". . . is the vast expansion and diversification of liberal arts college course offering" (p. 39). (The particular history of twentieth century curricular development in these twenty-eight institutions may be found in Rudy, pp. 51-125).

TABLE 2:2
Selected Roman Catholic Colleges:
Departments and Semester Courses, 1905-1956

Year	<u>Holly Cross</u>		<u>Georgetown</u>		<u>Notre Dame</u>		<u>Santa Clara</u>	
	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses
1905-1906	11	69	5	77	5	190	(1)	(1)
1915-1916	12	70	16	108	7	227	12	101
1925-1926	21	177	15	183	13	244	20	166
1935-1936	17	227	15	176	18	463	20	256
1945-1946	12	332	13	112	19	582	21	278
1955-1956	15	315	17	294	23	633	18	422

(1) Not listed as such.

SOURCE: Rudy (1960) pp. 40-42.

TABLE 2:3

Selected Northwest Colleges: Departments and Semester Courses, 1905-1956

Year	<u>Amherst</u>		<u>Haverford</u>		<u>Allegheny</u>		<u>Yale</u>		<u>Harvard</u>		<u>Columbia</u>	
	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses
1905-1906	22	154	19	197	23	169	22	554	14	671	18	475
1915-1916	22	172	21	198	22	236	22	521	25	645	29	366
1925-1926	21	214	19	203	24	280	30	510	26	604	32	453
1935-1936	21	286	23	260	28	301	33	548	35	725	30	559
1945-1946	24	61 ¹	23	291	27	351	32	686	28	537	38	616
1955-1956	30	401	24	299	24	406	31	1,005	28	932	40	719

¹The curriculum had been temporarily disrupted by the war.

TABLE 2:4

Selected Midwest Colleges: Departments and Semester Courses, 1905-1956

Year	<u>Knox</u>		<u>Coe</u>		<u>Macalester</u>		<u>U.Wisconsin</u>		<u>U.Michigan</u>		<u>U. Iowa</u>	
	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses	De- part- ments	Se- mester Courses
1905-1906	19	105	25	190	19	128	32	725	32	665	21	476
1915-1916	19	154	23	297	22	229	33	879	31	973	25	1
1925-1926	28	274	31	475	21	306	29	1,117	35	1,132	28	985
1935-1936	28	300	26	420	22	380	30	1,073	26	1,066	29	1,059
1945-1946	22	383	33	625	26	421	32	1,624	28	1,068	37	1,299
1955-1956	21	537	19	561	32	694	33	1,457	28	1,252	31	1,310

¹Courses in the College of Liberal Arts were not listed separately from those in the Schools of Commerce and Education.

TABLE 2:5

Selected Colleges of the South: Departments and Semester Courses, 1905-1956										
Year	William & Davidson		Mary		Sewanee		Louisiana		North	
	De- ments	Se- mester Courses	De- ments	Se- mester Courses	De- ments	Se- mester Courses	De- ments	Se- mester Courses	De- ments	Se- mester Courses
1905-1906	14	82	10	92	13	131	-	-	14	232
1915-1916	21	123	19	109	15	144	-	-	18	339
1925-1926	24	170	26	376	19	178	-	-	18	440
1935-1936	27	257	21	451	20	186	-	-	18	552
1945-1946	22	268	23	549	20	227	-	-	27	647
1955-1956	24	287	25	602	20	309	-	-	33	1,107
									25	603(2)

(1) No separate listing of courses in the university catalogue for the liberal arts college.

(2) Based on the "quarter" system rather than a full semester course.

TABLE 2:6

Selected Colleges of the Far West: Departments and Semester Courses, 1905-1956										
Year	Colorado		Whittier		Pomona		Wyoming		Oregon	
	De- ments	Se- mester Courses	De- ments	Se- mester Courses	De- ments	Se- mester Courses	De- ments	Se- mester Courses	De- ments	Se- mester Courses
1905-1906	22	218	15	98	18	129	18	228	16	369
1915-1916	32	386	16	177	28	391	19	205	21	508
1925-1926	26	344	19	252	29	452	17	312	19	811
1935-1936	30	451	26	442	25	380	20	524	20	771(2)
1945-1946	29	-	22	487	33	451	24	810	18	941
1955-1956	30	570	22	689	30	588	25	719	18	1,126
									-	-

(1) No separate listing for the liberal arts college.

(2) Based on the "quarter" system rather than a full semester course.

Contemporary catalog studies concerned with the development of the liberal arts curriculum after Rudy (1960), lay with Dressel and DeLisle-1957-1967 (1969) and Blackburn, et. al.-1967-1974 (1976). Whereas early studies were concerned with the spread of electives, and later with the growth and development of enrollment, faculty, departments of instruction, and the number of semester courses offered; these contemporary studies were more comprehensive and included over 200 institutions each (Blackburn also included two-year colleges), but in the main, they primarily concerned themselves with the three traditional components of the undergraduate curriculum: breadth, depth, and electives, as reflected in published college catalog statements.

The Dressel & DeLisle Study (1969) was concerned both with current practice and with changes or trends over a ten-year period, 1957-1967. In a similar vein, Blackburn, et. al. Study (1976) covered a seven-year period, 1967-1974. Dressel & DeLisle's ten-year interval was selected, according to these authors, ". . . because it covers a period of major ferment and of writings and conferences which seem to imply wide spread curricular modification" (p. 9). Whereas, Blackburn, et. al. seven-year period was selected because the Dressel & DeLisle study (1957-1967) found very little when it came to degree requirements. "Hence, if there had been appreciable change, it must have occurred since 1967, an interval for which we have no evidence" (Blackburn, et. al., 1976, p. ii).

The focus of the Dressel & DeLisle study was on the period, 1957-1967, for which there were detailed analyses of course offerings (arts and sciences) in a random sample of 322 institutions intended to be representative of types, control, size, geographic locations and

regional accreditation for the entire United States (according to Education Directory: Part 3, Higher Education, as presented in the American Council on Education's American Universities and Colleges, Ninth Edition, 1964).

Methodology:

Their pattern of analyses was straightforward, each institution was asked to provide a current catalog (1967) and one of ten years previous (1957). Three hundred and twenty-two colleges and universities submitted catalogs yielding a total of 644 for analyses. A coded form was developed to tabulate the frequency and range of specific requirements for 1967 and ten-years previous--1957. Tabulations for quantifiable items were expressed in total frequencies and in percentages to determine the extent of agreement or variation in curricular practices. The results were initially compiled by institutional type sampled, but few variations of significance were found among the types. Instead, their study concentrated on the total sample and emphasized those items reflecting trends of any significance (p. 11).

Breadth, Depth, and Electives:

The breadth component of their study included the humanities, natural sciences, and the social sciences, and according to Dressel & DeLisle, these subjects ". . . serve to acquaint students with the content and methodology of the major areas of learning . . ." (p. 12).

Subjects included in their analysis of the humanities were English composition, literature, speech, foreign language (B.A. and B.S. degrees) and foreign language proficiency tests, philosophy, and religion. "The

humanities," remarked Dressel and DeLisle (p. 13) "have been traditionally been considered central to the liberal arts curriculum." The biological and physical sciences and mathematics were the natural sciences segment. These subjects, commented Dressel & DeLisle, ". . . expose students to a fundamental mode of thought and inquiry, as well as to significant bodies of knowledge. A science laboratory experience is usually considered essential to accomplish these ends" (p. 21). The social sciences (sociology, anthropology, political science, psychology, economics, etc.) rounds out this segment of general education. Most colleges and universities (over 90 percent) specify an undergraduate requirements in the social sciences (Dressel & DeLisle, p. 25).

The undergraduate depth component in their study included a wide variation within majors but the focus was on ". . . pursuing a discipline or program of special interest to insure understanding in depth in at least one area of man's knowledge. The concentration may be departmental, interdepartmental, area study, or special programs" (p. 27). The elective component (directed or free) was expressed as those subjects ". . . chosen by students for their inherent interest and values" (p. 13).

"By this required exposure to breadth, depth, coupled with free choice," remarked Dressel & DeLisle (p. 13), "the student is introduced to the basic elements of his culture, is provided a basis for a vocation or graduate study, and is stimulated to acquire an enduring intellectual appetite. Variations among institutions suggest a diversity of ideas as to the best means of accomplishing the ends of higher education through a pattern of curricular requirements."

Summary of Findings: General Education (breadth),
Major or concentration (depth), and Electives (directed or free)

General Education (breadth):

1. Formal requirements in English composition, literature, and speech have decreased.
2. Foreign language requirements have increased, with two years (or the equivalent) being by far the most common requirement.
3. The use of proficiency tests for meeting requirements in foreign language has increased.
4. Requirements in philosophy and religion have been reduced with these subjects more frequently appearing as options in a distribution requirement.
5. The specification of mathematics as a requirement or as an option has increased. The percentage of degree requirements in the natural sciences has increased.
6. The percentage of degree requirements in the social sciences has increased.
7. There is some tendency to reduce physical education requirements and to eliminate credits and grades for it.
8. Basic and general requirements remain at approximately 37 percent of the degree requirements and are divided into 17 percent humanities, and 10 percent for each of the social and natural sciences.

Types of Majors or concentrations (depth):

1. More than one-half of the institutions specify the departmental major with a minor or secondary emphasis as the type of concentration most student are expected to pursue, although there has been a slight decline (from 62.4 percent to 56.2 percent) in this practice in favor of a straight departmental major without minors.
2. Almost one-fourth of the institutions specify a departmental major and say nothing about minors.

Major concentration (arts):

1. About 39 percent of the institutions in 1967 required 24 to 32 credits (8 courses) for a major concentration, as compared with 45 percent ten years previous.

2. The number of institutions requiring 28 to 36 credits (9 courses) for the major increased from about 15 percent (in 1957) to 19 percent (in 1967).

3. There was a great variation in the major or concentration requirements, although the modal practice remained at 24 to 32 credits or 8 courses.

Major concentration (sciences):

1. Almost 34 percent of the institutions in 1967 required 24 to 32 credits for a major concentration, as compared with about 38 percent ten years previous.

2. The number of institutions requiring 32 to 40 credits (10 courses) for a major increased about 4 percent from 10.6 percent (in 1957) to 14.6 percent (in 1967).

3. There was a great variation in the major or concentration requirements, although the modal practice remained at 24 to 32 credits or 8 courses.

Electives (directed or free):

Directed electives (arts and sciences):

1. The number of institutions recommending and approving electives in arts program decreased from 38 percent (in 1957) to 7 percent (in 1967).

2. The number of institutions recommending and approving electives in science programs decreased from 15 percent (in 1957) to 13 percent (in 1967).

Unrestricted (free) electives (arts and sciences):

1. Almost 95 percent of the institutions in the sample permitted undesignated electives in their arts program.

2. More than 90 percent of the institutions arranged the programs in the science areas to permit free electives.

TABLE 2:7

Current (1967) Curricular Profiles for the Bachelor of Arts Degree

Percentage of Total Requirements	Basic and General		Major or Area Concentration with Related and Directed		Electives	
	N	%	N	%	N	%
0	4	1	5	2	3	1
1-10	-	-	-	-	21	7
11-20	2	1	39	13	59	19
21-30	47	15	111	36	86	28
31-40	110	35	126	41	86	28
41-50	103	33	23	7	41	13
51-60	33	11	6	2	7	2
61-70	8	3	-	-	2	1
71-80	3	1	-	-	2	1
81-90	-	-	-	-	1	(1)
91-100	-	-	-	-	2	1
Totals	310(2)	100	310	101	310	101
Median	39 percent		31 percent		29 percent	

(1) Less than 1 percent.

(2) Twelve institutions granting only the Bachelor of Science degree are excluded.

SOURCE: Dressel & DeLisle, 1969, p. 37.

1967 Curricular Profiles for the Bachelor of Arts Degree:

1. For the basic and general education component, slightly more than two-thirds of the institutions require 31 to 40 percent or 41 to 50 percent of the total graduation requirements. The median requirement was 39 percent.

2. More than three-fourths of the 310 institutions clustered at 21 to 30 percent and 31 to 40 percent for the major concentration combined with any related or directed requirements. The median requirement was 30 percent of the total for graduation.

3. Electives spread over the full range of requirements, though more than one-half of the institutions cluster at 21 to 30 percent and 31 to 40 percent of the total requirements. The median fell at 29 percent.

Medians for the B.A. degree requirements provided this profile:

Basic and general requirements	39 percent
Major or concentration requirements	31 percent
Electives	29 percent

The focus of the Blackburn and associates' study (1976) was on the period, 1967-1974, for which there were detailed analyses of the three traditional components of the undergraduate curriculum: general education (breadth), major (depth), and electives, in a random sample of 271 institutions (210 four-year and 61 two-year) according to Carnegie's Classification of Higher Education (1974), representing five major institutional categories: research universities, other doctoral-granting universities, comprehensive universities and colleges, liberal arts colleges, and community colleges. A total of seventeen institutions by Carnegie type were included in their study, or 12 percent of the total institutions listed in the Carnegie classification. (Their study was the first to include two-year colleges). Their sample met the requirements of representativeness and geographic distribution.

Methodology:

The methodological procedures by which Blackburn and associates investigated these 271 institutions were in two phases. In phase I, they examined degree requirements from the 1966-1967 and 1973-1974 catalogs for each institution with regard to "amount"--that is, the specified minimum number of credit hours--and the proportion of overall degree requirements. Phase II of their study employed transcript analysis for a selected number of institutions. The actual programs of graduates of six arts and sciences departments at ten colleges and universities in 1967 and 1974 were examined. The principal goals in Phase II were to determine the extent to which student course-taking actually agreed with the requirements stated in the official announcements of colleges

and universities, and to ascertain whether there had been a change since 1967 in the extent of student specialization (p. 20).

A data form was developed to list tabulations from the 1966-1967 and 1973-1974 catalogs for each institution. These included (p. 7):

1. The total number of credit hours required for graduation. (The semester hour served as the most common unit and therefore was adopted for purposes of comparability).
2. The proportion of degree-credit hours represented by general education requirements, the content and structure of the general education requirements, specific general education course requirements, and distinctive patterns of general education requirements.
3. The proportion of degree-credit hours required in each of six selected majors. (Two-year colleges necessarily were analyzed only for general education and electives; the A.A. degree does not generally require a major).
4. The proportion of graduation requirements available as electives.

Total Hours, Breadth, Depth, and Electives:

For each institution, the minimum total number of hours required for the two-year college's A.A., or the four-year college's B.A. (or B.S.), was obtained from its catalog. While most institutions used the semester hour as the basic unit of credit, the semester hour served as the most common unit and therefore was adopted for purposes of comparability. When an institution used the quarter hour, the minimum quarter hour requirement for graduation was multiplied by two-thirds to obtain a total comparable to the semester hour totals (p. 7).

Within the general education requirements of each institution, the credit hours for all courses fulfilling general education requirements were tabulated according to content (humanities, natural science, social science, and other) and structure. For the latter, each course was

assigned to one of the following categories reflecting the relative freedom of choice for the student (pp. 7-8).

1. Prescribed courses were defined as those specific courses that every student must present for graduation, e.g., Western civilization, philosophy, mathematics, and laboratory science. English composition and foreign language were tabulated separately, but were also included in the general requirements.

2. Distribution courses were defined as those within a content division, department, or group where some degree or constraint is exercised over student selection. These courses belonged to a distribution group from which the student had to choose a certain number.

3. Elective (free) courses were defined as those that are taken to fulfill the general education credit-hour requirements, but that otherwise place no restriction on a student's selection. These courses could be chosen freely, either from all the offerings in a content division, or from all the offering of the institution.

The total minimum number of general education credit hours required for the B.A. was derived by adding the general education hours tabulated according to structural category (prescribed, distribution, and free election) and content division (humanities, natural science, social science, and other).

The undergraduate depth component in their study included two majors selected from each of the three main areas of general education: English composition and philosophy were chosen from the humanities, biology and physics from the natural sciences, and political science and psychology from the social sciences. The total minimum credit-hour requirement was tabulated for each of the six majors. This figure included a minor or related work required to complete a major but did not include recommended courses, either within or outside the major department. Thus, for example, an English department might require 24 credits of English, 16 hours of related work in the humanities, and recommended 12 credit hours in the social sciences. The total number of credit hours required

for a major in English would be 40 semester hours and not 52. The six majors were chosen because they were offered in most colleges and universities in their sample and they were offered consistently in the same division.

The elective component included in their study constituted the portion of the undergraduate degree work remaining after the general education and major components were completed. (Since two-year colleges did not always have requirements for the major, electives were defined as what remained after general education requirements were tabulated.) The method by which they computed the electives was rather than computing the average number of hours required in each of the six selected majors for all institutions, they selected from each institution the majors with the lowest and highest number of required hours. These minimum and maximum figures were then averaged across all the 210 four-year institutions in the sample and by institutional type. Thus, the average maximum and minimum amounts of elective time available to the student in both 1967 and 1974 could be determined. By adding the overall percentage of time required in general education work to the minimum percentage of time required in the major and subtracting 100 percent, the maximum percentage of elective time was computed. Similarly, general education time plus maximum major time resulted in a residual that equaled the minimum elective time available to the student (pp. 9-10).

Summary of Findings, Total Hours, General Education (Content and Structure),
The Major, and Electives:

Total Hours:

For the 210 four-year institutions included in their study, the average number of semester hours required for a bachelor's degree in arts and sciences decreased from 125 to 123 between 1967 and 1974, a change of minus two hours. For the 61 two-year colleges, the average number of semester hours required for the associate's degree decreased from 63 to 62 between 1967 and 1974, a change of minus one hour.

General Education (Content: humanities, natural sciences, and social sciences):

1. Humanities decreased from 48.2 percent in 1967 to 41.5 percent in 1974 of required general education hours.
2. Natural sciences decreased from 21.0 percent in 1967 to 18.3 percent in 1974 of required general education hours.
3. Social sciences decreased from 20.1 percent in 1967 to 17.1 percent in 1974 of required general education hours.
4. The figures for two-year colleges were 43.7 to 43.4 percent, 19.9 to 21.6 percent, and 22.9 to 21.9 percent respectively.

Specific requirements: English composition, foreign languages, mathematics, and physical education:

1. English composition decreased from 90 percent in 1967 to 72 percent in 1974.
2. Foreign language decreased from 72 percent in 1967 to 45 percent in 1974.
3. Mathematics decreased from 33 percent in 1967 to 20 percent in 1974.
4. Physical education decreased from 86 percent in 1967 to 55 percent in 1974.

General Education (Structure: prescribed, distribution, and free courses):

1. Prescribed courses decreased from 50 percent in 1967 to 28 percent in 1974.
2. Distribution courses increased from 46 percent in 1967 to 54 percent in 1974.
3. Free courses increased from 4 percent in 1967 to 18 percent in 1974.
4. The figures for two-year colleges were 49 to 34 percent, 43 to 49 percent, and 8 to 17 percent respectively.

The Major (Six selected majors in aggregated percentage):

1. Humanities: English 30 percent in 1967 and 29 percent in 1974. Philosophy, 27 percent and 27 percent.
2. Natural sciences: biology, 37 percent in 1967 to 38 percent in 1974. Physics, 34 and 37 percent.
3. Social sciences: political science, 26 percent in 1967 to 29 percent 1974. Psychology 29 and 28 percent.

Overall Degree Requirements: Breadth, Depth, and Electives:

In most of the institutions included in their study, the typical course of study had consisted of three broad areas. General education requirements represented the means of achieving breadth in the curriculum; major requirements were viewed as the medium through which students added depth to their educational experience. The remainder of the student's curriculum (over which the student has complete control) were the elective portion of undergraduate study. Two-year colleges have two components; general education and electives only. Table 2:8 displays the overall change in degree requirements between 1967 and 1974.

From the table, general education component diminished considerably, while the major component remained relatively stable; the net effect was an increase in the elective component. The maximum percentage of

elective work at four-year colleges increased from 30.2 percent in 1967 to 41.3 percent in 1974, and the minimum percentage increased from 16.8 to 25.5 percent. For the two-year colleges, the average amount of elective work available increased from 41.3 to 46.2 percent.

TABLE 2:8

Proportions of Undergraduate Education Spent in
General Education, The Major, and Electives (in percentages)

	1967	1974
Four-year Institutions:		
General education requirements (mean)	43.1	33.5
Major requirements (range)	26.7-40.1	25.2-41.0
Available electives (range)	16.8-30.2	25.5-41.3
Two-year Institutions:		
General education requirements (mean)	58.7	43.8
Available electives	41.3	46.2

SOURCE: Blackburn and associates, 1976, p. 11.

Phase II of the Blackburn and associates' study employed transcript analysis of ten institutions to determine the extent to which student course-taking actually agreed with the requirements stated in the catalog statements, and to ascertain whether there had been a change since 1967 in the extent of student specialization (p. 20).

Transcripts of bachelor's degree recipients of 1967 and 1974 were collected, chosen from six majors: English, philosophy, biology, physics, psychology, and political science, for both years. A random sample of 30

cases per major were requested for each year. The sample was limited to include only those students who graduated within five years of matriculation. A total of 360 transcripts were supplied from an institution. The total number of transcripts included in their study for analyses was 1,794, 800 for 1967 graduates and 944 for 1974 graduates. There were 564 transcripts for students who had completed a major in the humanities, 452 for those in the natural sciences, and 778 in the social sciences (pp. 23-24).

TABLE 2:9

Percentage Point Changes in the Proportion of Undergraduate Education Spent in Satisfying General Education Requirements, 1967 to 1974, Student Course-Taking Behavior Versus Catalog Statements, Institutions 1 through 10
(+ = Greater Proportion, - = Smaller Proportion)

Institution	Student Behavior	Catalog Statements
1	-32.6	-31.0
2	-19.7	-31.0
3	-12.4	-15.0
4	-23.2	-20.0
5	-12.3	-48.0
6	- 9.0	- 7.0
7	- 5.9	+ 2.0
8	- 1.5	- 2.0
9	+ 1.1	-23.0
10	+ 0.2	- 4.0

SOURCE: Blackburn and associates, 1976, p. 27.

With three exceptions (institutions 2, 5 and 9 from Table 2:9), the percentage of the degree in general education requirements, as stated in catalogs, and the percentage in actual courses taken to fulfill those requirements were in general agreement (p. 27).

Changes in the major and electives are shown in Table 2:10. According to Blackburn and associates, in addition to identifying the degree of

change in general education requirements, they also determined the degree of change in major requirements in order to check practice against prescription. Also, to determine the total elective time available to the student.

TABLE 2:10

Percentage Point Changes in the Proportion of Undergraduate Education Spent in General Education, the Major, and Electives, 1967-1974
(Student Course-Taking Behavior)

	General Education Requirements	Major Requirements	Electives
Institutions with large elective increases			
1	-32.6	-3.2	+35.9
2	-19.7	+3.9	+15.8
3	-12.4	-1.7	+14.2
4	-23.2	+9.1	+14.1
5	-12.3	-1.0	+13.4
6	- 9.1	+6.6	+ 2.5
7	- 5.9	+3.7	+ 2.2
8	- 1.5	+1.9	- 0.3
Institutions with small elective change			
9	+ 1.1	+4.0	- 4.9
10	+ 0.2	-7.3	+ 7.1

Catalog data are now shown.

SOURCE: Blackburn and associates, 1976, p. 28.

Their conclusions drawn originally from catalog analysis of Phase I were verified in Phase II, the examination of student course-taking behavior. Their catalog analyses agreed reasonably well with what students do to meet requirements. The increase in available electives between 1967 and 1974 were due primarily to reductions in general education, major requirements did not change in any significant way (p. 28).

SUMMARY

It was the controversy of the elective principle in undergraduate education during the years from approximately 1870 to 1910 that gave rise to catalog studies, or "fact finding" investigations concerning the actual spread of the elective system as a part of the accepted procedure in building and administrating the collegiate course of study in the United States.

Among some of the early fact finding investigators who were concerned with the spread of the elective system, Palmer (1886), concluded from his investigation of 15 New England colleges from 1875 to 1885, that: (1) A rapid and fateful revolution is going on in the higher education of New England. (2) The spread of it is in tolerable proportion to the wealth of the college concerned. The new modes are expensive. (3) The colleges which long ago foresaw their coming necessities have been able to proceed more cautiously than those which acknowledged them late. (4) The movement is one steady advance. There is no going back (p. 581).

Brigham (1897), published a report in which he studied the catalogs of 25 colleges from 1885-1886 to determine the extent of the acceptance of the elective system. Brigham found the 25 institutions to be divided into three categories: those requiring the greatest number of subjects especially in the freshman and sophomore years; those allowing a considerable amount of election; and those allowing the greatest amount of election.

After the 1880s, the U.S. Bureau of Education began publishing detailed subjects by colleges and universities. The 1888-1889 annual report listed the subjects taught in 101 colleges and universities, with elective subjects written in italics.

Phillips (1901) study of the elective system was based on the inspection of eighty-seven college catalogs and ninety-seven questionnaires filled out by college presidents. "An estimate of ninety-seven replies gave an average about sixty-four percent of all work as electives, while a wholly independent examination of eighty-seven catalogues gave an average of about sixty-two percent" (p. 212).

The main body of Phillips' study dealt with the summaries of answers made by the 97 college presidents in reply to his questionnaire in which he had asked a series of questions (13 in all) concerning the present extent of the use of the elective system, how long it had been in use, and whether or not it was workable and advisable as part of the college education. He found that twelve had at least 50 to 70 percent election; fifty-one had less than 50 percent election, and thirty-four had 70 percent or more of their work elective. He found such a great variety of arrangements among the different institutions, he remarked, "we should no longer speak of the Elective System, but of the Elective Systems" (p. 211).

Canfield (1905), reported to the forty-fourth annual meeting of the National Education Association a compilation of replies received from thirty-five colleges and universities throughout the country in answer to the question whether or not wide election and narrow courses tended to weaken the undergraduate course by too much specialization. His findings were opposite to those of Phillips (1901), where he found that the great majority were opposed to excessive free election. He remarked, ". . . you will find a very general consensus of opinion that a student ought not to 'scatter,' and that sound and thorough training ought to preceed every attempt at specialization" (p. 297).

Foster (1911), conducted an extensive catalog investigation of the elective system in twenty-nine state universities, fourteen private colleges, including nine women's colleges, and forty small colleges. Foster comments, "the chief movement in the history of the college curriculum in America is the breakdown of prescribed programs through the evolution of the elective system" (p. v). By 1911, Butts (1939, p. 243), remarks that Foster was convinced that the elective principle was here to stay, provided the students were required to do a considerable amount of creditable work in whatever field they chose.

Butts (1939, p. 239) summarizes the early fact finding investigations by stating:

The most obvious conclusions of all the investigations of prevailing opinion and practice of the elective principle seemed to be that it had entered in some form the great majority of American colleges by 1910 and that the form in which it appeared was exceedingly different from one college to another.

Among some of the early contemporary fact findings investigators, Rudy (1960) sought to depict trends in the development of the curriculum of American liberal arts colleges as reflected in their published catalogs from 1825 to 1905 and 1905 to 1955. However, it was the period of 1905-1955 that Rudy concentrated on in order to carry forward a detailed study of the college curricula in the twentieth century.

Rudy's 1825-1905 survey began with the year 1825 because it was about that time that the most influential articulation of the ideals of the early American college was published, namely, the Yale Report of 1828. "For the next half century," remarks Rudy, "this report would articulate for American educators the dominant conceptions of the role of the liberal arts colleges and the types of curriculum appropriate to

it" (p. 5). The period between 1865-1900, a number of significant agents and eventualities conspired together to produce the fundamental changes in the college curriculum. Among these agents and eventualities were the Civil War, the passage of the Morrill Act, German influence that advanced research methods and specialized scholarship, and Eliot's free elective system. It was these significant agents and eventualities that led Rudy to ask, "What were the actual changes in curriculum which occurred during the years following the Civil War?" (p. 9). In order to answer this question, he selected ten representative institutions (three from the Northeast, three from the South, and four from the Middle West) to study. The catalogs of these colleges were sampled at twenty or twenty-five year intervals for the period, 1825-1900. From these catalogs, he collected data on enrollments, faculty, and departments of instruction. The obvious conclusions from the data collected were that enrollments, faculty, and departments of instruction increased. Also, he commented on more or less common lines of development characteristic of these ten institutions during this period.

It was the period, 1905-1955 that Rudy carried out a detailed study of college curricula in twenty-eight institutions and their catalogs. Each college and their catalogs were examined at ten-year intervals, beginning in 1905 and proceeding through the year 1955. (Six colleges were chosen to represent each of four major sections of the country, namely, the Northeast, the Midwest, the South, and the Far West). The regional samples, in turn, were subdivided into two groups, comprised of three independent liberal arts colleges and three institutions affiliated with, or a constituent part of, a large university. In addition,

four Roman Catholic colleges were included, one for each section of the country, to represent an important group of denominational schools closely wedded to the liberal arts tradition.

Specifically, Rudy investigated the number of separate, functioning departments of instruction, and the number of semester courses offered. The data collected revealed notable increases in both categories over this period. The generalizations drawn from these data, remarks Rudy, ". . . is the vast expansion and diversification of liberal arts college course offering" (p. 39).

Contemporary catalog studies concerned with the development of the liberal arts curriculum after Rudy (1960), lay with Dressel and DeLisle-1957-1967 (1969) and Blackburn and associates-1967-1974 (1976). Whereas early studies were concerned with the spread of electives (Palmer 1886; Brigham 1897; U.S. Bureau of Education 1888-1889; Phillips 1901; Canfield 1905; and Foster 1911), and later with the growth and development of enrollment, faculty, departments of instruction, and the number of semester courses offered (Rudy 1960); these contemporary studies were more comprehensive and included over 200 institutions each (Blackburn also included two-year colleges), but in the main, they primarily concerned themselves with the three traditional components of the undergraduate curriculum: breadth, depth, and electives, as reflected in published college catalog statements.

The focus of the Dressel and DeLisle study was on the period 1957-1967, for which there were detailed analyses of course offerings (arts and sciences) in a random sample of 322 institutions intended to be representative of types, control, size, geographic locations, and

regional accreditation for the entire United States (according to Education Directory: Part 3, Higher Education, as presented in the American Council of Education's American Universities and Colleges, Ninth Edition, 1964).

Methodology:

Their pattern of analyses was straightforward, each institution was asked to provide a current catalog (1967) and one of ten year previous (1957). Three hundred and twenty-two colleges and universities submitted catalogs yielding a total of 644 for analyses. A coded form was developed to tabulate the frequency and range of specific requirements for 1967 and ten years previous--1957. Tabulations for quantifiable items were expressed in total frequencies and in percentages to determine the extent of agreement or variation in curricular practices.

Breadth, Depth, and Electives:

The breadth component of their study included the humanities, natural sciences, and the social sciences. Subjects included in their analyses of the humanities were English composition, literature, speech, foreign language (B.A. and B.S. degrees) and foreign language proficiency tests, philosophy, and religion. The biological and physical sciences and mathematics were the natural sciences segment, and the social sciences included sociology, anthropology, political science, psychology, and economics.

The undergraduate depth component in their study included a wide variation within majors but the focus was on pursuing a discipline or program of special interest to insure understanding in depth in at least once area of man's knowledge. The elective component (directed or free)

was expressed as those subjects chosen by students for their inherent interest and values.

"By this required exposure to breadth, depth, coupled with free choice," remarked Dressel & DeLisle (p. 13), "the student is introduced to the basic elements of his culture, is provided a basis for a vocation or graduate study, and is stimulated to acquire an enduring intellectual appetite. Variations among institutions suggest a diversity of ideas as to the best means of accomplishing the ends of higher education through a pattern of curricular requirement."

1967 Composite Profile of Breadth, Depth, and Electives for the Bachelor of Arts Degree (See Table on the following page)

1. For the basic and general education component, slightly more than two-thirds of the institutions required 31 to 40 percent or 41 to 50 percent of the total graduation requirements. The median was 39 percent.

2. More than three-fourths of the 310 institutions (12 institutions granting only the Bachelor of Science degree were excluded) clustered at 21 to 30 percent and 31 to 40 percent for the major concentration combined with any related or directed requirements. The median requirement was 30 percent of the total for graduation.

3. Electives spread over the full range of requirements, though more than one-half of the institutions clustered at 21 to 30 percent and 31 to 40 percent of the total requirements. The median was 29 percent.

Medians for the B.A. degree requirements provided this profile:

Basic and general education requirements	39 percent
Major or concentration requirements	31 percent
Electives	29 percent

The focus of the Blackburn and associates's study (1976) was on the period 1967-1974, for which there were detailed analyses of the three traditional components of the undergraduate curriculum: general education (breadth), the major (depth), and electives, in a random sample of 271 institutions (210 four-year and 61 two-year) according to Carnegie's

TABLE 2:7

Current (1967) Curricular Profiles for the Bachelor of Arts Degree

Percentage of Total Requirements	Basic and General		Major or Area Concen- tration with Related and Directed		Electives	
	N	%	N	%	N	%
0	4	1	5	2	3	1
1-10	-	-	-	-	21	7
11-20	2	1	39	13	59	19
21-30	47	15	111	36	86	28
31-40	110	35	126	41	86	28
41-50	103	33	23	7	41	13
51-60	33	11	6	2	7	2
61-70	8	3	-	-	2	1
71-80	3	1	-	-	2	1
81-90	-	-	-	-	1	(1)
91-100	-	-	-	-	2	1
Totals	310(2)	100	310	101	310	101
Median	39 percent		31 percent		29 percent	

(1) Less than 1 percent.

(2) Twelve institutions granting only the Bachelor of Science degree are excluded.

SOURCE: Dressel & DeLisle, 1969, p. 37.

Classification of Higher Education (1974), representing five major institutional categories: research universities, other doctoral-granting universities, comprehensive universities and colleges, liberal arts colleges, and community colleges. A total of seventeen institutions by Carnegie type were included in their study, or 12 percent of the total institutions listed in the Carnegie classification. Their sample met the requirement of representativeness and geographic distribution.

Methodology:

The methodological procedures by which Blackburn and associates investigated these 271 institutions were in two phases. In phase I, they

examined degree requirements from the 1966-1967 and 1973-1974 catalogs for each institution with regard to "amount"--that is, the specified minimum number of credit hours--and the proportion of overall degree requirements. Phase II of their study employed transcripts analysis for a selected number of institutions. The actual programs of graduates of six arts and sciences departments at ten colleges and universities in 1967 and 1974 were examined. The principal goals in Phase II were to determine the extent to which student course-taking actually agreed with the requirements stated in the official announcements of colleges and universities, and to ascertain whether there had been a change since 1967 in the extent of student specialization.

A data form was developed to list tabulations from the 1966-1967 and 1973-1974 catalogs for each institution. These included:

1. The total number of credit hours required for graduation.
2. The proportion of degree-credit hours represented by general education requirements, the content and structure of the general education requirements, specific general education course requirements, and distinctive patterns of general education requirements.
3. The proportion of degree-credit hours required in each of six selected majors. (Two-year colleges were analyzed for general education and electives only; the A.A. degree does not generally require a major).
4. The proportion of graduation requirements available as electives.

Total Hours, Breadth, Depth, and Electives:

For each institution, the minimum total number of hours required for the four-year college's B.A. (or B.S.), and the two-year college's A.A. was obtained from its catalog. Within the general education requirements of each institution, the credit-hours for all courses fulfilling

general education were tabulated according to content (humanities, natural science, social science, and other) and structure.

The undergraduate depth component in their study included two majors selected from each of the three main areas of general education: English composition and philosophy were chosen from the humanities, biology and physics from the natural sciences, and political science and psychology from the social sciences. The total minimum credit-hour requirements was tabulated for each of the six majors. This figure included a minor or related work required to complete a major but did not include recommended courses, either within or outside the major department. The six majors were chosen because they were offered in most colleges and universities in their sample and they were offered consistently in the same division.

The elective component included in their study constituted the portion of the undergraduate degree work remaining after the general education and major components were completed. (Since two-year colleges did not always have requirements for the major, electives were defined as what remained after general education requirements were tabulated).

Overall Degree Requirements: Breadth, Depth, and Electives:

In most of the institutions included in their study, the typical course of study had consisted of three broad areas. General education requirements represented the means of achieving breadth in the curriculum; major requirements were viewed as the medium through which students added depth to their educational experience. The remainder of the student's curriculum (over which the student has complete control) were the elective portion of undergraduate study. Two-year colleges have two components:

general education and electives only. Table 2:8 displays the overall change in degree requirements between 1967 and 1974.

From the table it can be noted that the general education component diminished considerably, while the major component remained relatively stable; the net effect was an increase in the elective component. The maximum percentage of elective work at four-year colleges increased from 30.2 percent in 1967 to 41.3 percent in 1974, and the minimum percentage increased from 16.8 to 25.5 percent. For the two-year colleges, the average amount of elective work available increased from 41.3 to 46.2 percent.

TABLE 2:8

Proportions of Undergraduate Education Spent in
General Education, The Major, and Electives (in percentages)

	1967	1974
Four-year Institutions:		
General education requirements (mean)	43.1	33.5
Major requirements (range)	26.7-40.1	25.2-41.0
Available electives (range)	16.8-30.2	25.5-41.3
Two-year Institutions:		
General education requirements (mean)	58.7	53.8
Available electives	41.3	46.2

SOURCE: Blackburn and associates, 1976, p. 11.

Phase II of the Blackburn and associates' study employed transcript analysis of ten institutions to determine the extent to which student course behavior actually agreed with the requirements stated in the catalog statements, and to ascertain whether there had been a change since 1967 in the extent of student specialization.

The percentage of the degree in general education requirements, as stated in catalogs, and the percentage in actual courses taken to fulfill those requirements were in general agreement.

In addition to identifying the degree of change in general education requirements, they also determined the degree of change in major requirements in order to check practice against prescription. Also, to determine the total elective time available to the student.

Their conclusions drawn originally from catalog analysis of Phase I were verified in Phase II, the examination of student course taking behavior. Their catalog analyses agreed reasonably well with what students do to meet requirements.

CONTEMPORARY OVERVIEW OF THE THREE TRADITIONAL COMPONENTS
OF THE UNDERGRADUATE CURRICULUM: BREADTH, DEPTH, AND ELECTIVES

The curricular terms "breadth," "depth," and "electives" are generally associated with "general education," "the major" (or concentration), and "electives" (free or prescribed), respectively. The Carnegie Foundation for the Advancement of Teaching (1977) states, "These terms are found in the curricular of the overwhelming majority of colleges in the United States, but they are not universal" (p. 123).

General Education

General education has been variously described in the past as "the discipline and the furniture of the mind" (1828 Yale Report, in Crane, 1963, p. 85); "liberal education" (Harvard Committee, 1945, in Levine, 1977, p. 603); "preparation for participation in a democratic society" (President's Commission on Higher Education, 1947, in Levine 1977, p. 608); and "the basis for common humanity among people" (Levine and Weingart, 1973, p. 50).

In the contemporary undergraduate curriculum, general education, has become known as the first statement of requirements for the baccalaureate degree and is used to describe "breadth" requirements. General education, remarks Levine (1977):

"is the breadth component of the undergraduate curriculum and is usually defined on institution-wide or college-wide basis. It generally involves study in several subject areas and frequently aims to provide a common undergraduate experience for all students at a particular institution" (p. 3).

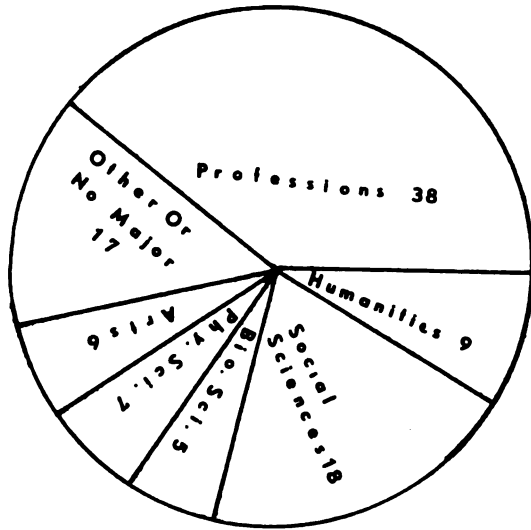
The Carnegie Foundation for the Advancement of Teaching (1977) adds,

"Breadth components of general education introduce students to the concerns and methods of several broad subject fields; typically the social sciences, the humanities, the physical sciences, the biological sciences, and, occasionally, the fine arts. This component of general education is often referred to as 'distribution'" (p. 122).

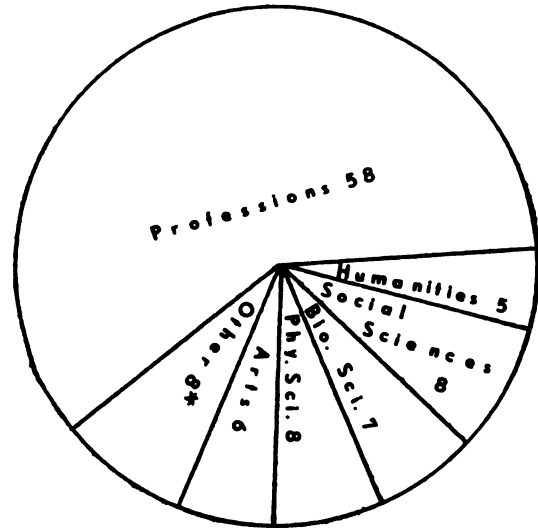
Williams (1968) comments, "The three major fields of human knowledge are the humanities, the social sciences, and the natural sciences. This practice is followed in American colleges, and is called 'general education'" (p. x). Similarly, Dressel and DeLisle (1969) commented, "General education refers to courses that acquaint students with the content and methodology of the major areas of learning: social sciences, natural sciences, and humanities" (p. 12).

The Carnegie Foundation for the Advancement of Teaching (1977, pp. 103-110), reports on the Carnegie Surveys of 1969-1970, 1975-1976 on the percentage of undergraduate enrollments and teaching faculty in subject fields such as the humanities, social sciences, and natural sciences. According to the Carnegie Foundation, enrollments in humanities majors dropped sharply from 9 to 5 percent of all undergraduates between 1969 and 1976; while the percentage of faculty teaching humanities dropped from 19 to 18 percent during this same period (Figure 2:1). "Instruction in the humanities," comments the Carnegie Foundation, "appears to be expensive for colleges, particularly in comparison to the professions, which have 58 percent of the majors and 37 percent of the faculty. Instruction in the humanities has always been 'labor intensive.' One reason is that these disciplines have always been the providers of service courses for majors in other disciplines and of stable components of general education--they provide much of the core of the undergraduate education" (p. 104).

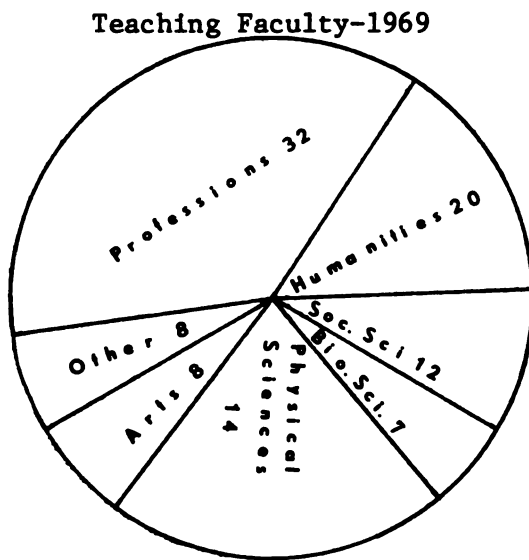
The social science majors enrolled 8 percent of all undergraduates in 1976 and no longer have the largest share of the enrollment of any subject field other than the combined professions (Figure 2:1). The percentage of faculty members teaching in the social sciences was the same in 1976 as it was in 1969--12 percent (p. 106).



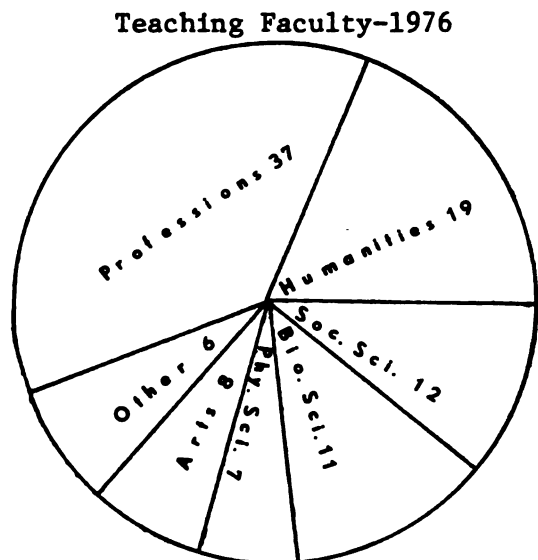
Undergraduate Enrollment-1969



Undergraduate Enrollment-1976



Teaching Faculty-1969



Teaching Faculty-1976

FIGURE 2:1

Percentage of Undergraduate Enrollments and Teaching Faculty
in Subject Fields, 1969 and 1975-1976

*Includes "no major" and such subjects as ethnic studies, women's studies, and environmental studies, all of which have very low enrollments.

Note: Numbers may not add to 100 owing to rounding.

Source: The Carnegie Foundation for the Advancement of Teaching (1977).

In 1976, 8 percent of the undergraduates were majors in the physical sciences, a modest percentage-point increase over the enrollment in 1969. In a similar but even stronger pattern, majors in the biological sciences attracted 5 percent of the undergraduates in 1969 and 7 percent in 1976 (Figure 2:1). The net results of these shifts is that if the physical and biological sciences are combined, the percentage of undergraduates majoring in these two branches of the sciences (outside the professions) increased by about 25 percent between 1969 and 1976 (p. 108).

The Major (or concentration)

Second in the statements of requirements for the baccalaureate degree and is used to describe "depth" requirements is "the major" (or concentration). This component of the baccalaureate degree dates back to 1909 when A. Lawrence Lowell of Harvard used the term concentration to identify the depth component of the curriculum in contrast to distribution or the breadth component (Butts 1939, Levine 1977, Mattfeld 1975). However, Payton (1961) reports that the term major appears to have been used for the first time in The John Hopkins University catalog of 1877-78; along with the term minor denoting an abbreviated major. John Hopkins undergraduates were required to show "marked proficiency" in two of the university's six academic departments. The major involved two years of study and the minor required one year of study. Specifically, the The John Hopkins catalog stated that "the major course must be followed in any subjects which the candidate offers as one of his two chief departments of work; the minor course must be followed in those subjects taken as subsidiary" (p. 58).

Payton identifies two possible sources for the terms major and minor. One is the German university, which required students to complete a hauptfach (major) and nebenfach (minor) for the doctorate (p. 59). "John Hopkins," comments Levine (1977) "adopted the same system for its own doctoral programs, so it was quite possible that the terms subsequently diffused to the undergraduate college" (p. 30). "Through John Hopkins graduates," comments Payton (1961), the terms "major" and "minor" diffused to Michigan, Bryn Mawr, Indiana, and from thence to Stanford University" (p. 57; Rudolph, 1977, p. 227).

The other possibility is that the terms were introduced by Charles D'Urban Morris, first collegiate professor of Greek and Latin, and head of the collegiate division at John Hopkins. Payton suggests that Morris could have learned the terms from the classical grammar of Priscian, a writer who published his lectures in the form of eighteen books which were widely studied in the Middle Ages, became known in the first sixteen books as Priscianus magus or major and in the last two as Priscianus minor. Priscian's writings were used at both the University of Paris and at Oxford University, where Morris went to graduate school and later taught. The terms major and minor were also used to describe portions of the classical curriculum, such as the major logic and minor logic or major ethics and minor ethics at Emmanuel College, Cambridge in the seventeenth century and in American colleges between the late eighteenth and nineteenth centuries (pp. 59-61).

In the contemporary undergraduate curriculum, the major, states The Carnegie Foundation for the Advancement of Teachings (1977):

"is that part of the curriculum in which a student concentrates on one subject or a group of subjects. Its content is usually defined by one academic department, but it can also be defined jointly by two or more departments and, in special cases (and with faculty approval) by individual students" (p. 122).

Similarly, adds Levine (1977):

"The major, or concentration, which usually consists of a number of courses in one field or in two or more related fields, is the depth component of the undergraduate curriculum. It is intended to provide students with a body of knowledge, methods of study, and practice appropriate to a subject or subject area" (p. 28).

The Carnegie Council's 1976 Catalog Study of 1975 catalogs from a representative sample of 270 two and four year colleges and universities, as reported in Levine's Handbook On Undergraduate Curriculum (1977) and The Carnegie Foundation for the Advancement of Teaching (1977), reports on the percentage of bachelor's degree programs in eight subject areas requiring varying amounts of the undergraduate curriculum to be spent on the major (Table 2:11).

According to Levine, occupational areas (business, education, engineering, health sciences, and trade and technical arts) generally require more time for the major than the arts and sciences subjects (humanities, social sciences, and science). Among the arts and sciences courses, the natural sciences (median 21-40 percent) tend to require the longest time for major. The social sciences (median, 21-30 percent) require the least in four-year programs. Among occupational programs, engineering, health sciences, and trade and technical arts require the greatest amount of concentration. The median amount of major for each is 61-70 percent of the undergraduate program. Levine (1977) comments, the variation within each of the eight subject areas in the amount of time required

TABLE 2:11

Percentage of Bachelor's Degree Programs in Eight Different Subject Areas Requiring Varying Amounts (in deciles) of the Undergraduate Curriculum to be Spent on the Major

Percentage of time spent on major	Subjects							Trade and technical arts
	Humanities	Social science	Science	Business	Education	Engineering	Health science	
1-10								
11-20	5	9	2	1	2		1	
21-30	39	49	21	18	18	7	4	5
31-40	39	26	28	30	18	7	8	
41-50	12	12	29	22	23	6	17	5
51-60	2	2	14	20	25	12	19	23
61-70	2	2	5	9	12	24	25	23
71-80	1		1	1	3	24	24	27
81-90						20	2	18
91-100						1		

SOURCE: A. Levine, Handbook On Undergraduate Curriculum, 1977, p. 32.

for the major is quite large; and at least as great as the variation between the subject areas (p. 33). Dressel and DeLisle (1969) also noted wide variations within majors in a 1967 study of arts and sciences (pp. 28-29).

Electives

The last statement of requirements for the baccalaureate degree are the elective courses which remain to be taken after a student satisfies the general education (breadth) and major (depth) requirements.

This component of today's undergraduate curriculum dates back to 1869 when Charles W. Eliot of Harvard University announced his advocacy of electives ignored in the heavily prescribed programs of early American colleges (Brubacher & Rudy, 1958 & 1969; Butts 1939; Levine 1977; Mattfeld 1975; Rudolph 1962 & 1977; Phillips 1901). However, long before Eliot introduced his elective system at Harvard, remarks Brubacher and Rudy (1958), Thomas Jefferson at the University of Virginia advocated the granting of a larger element of choice in college studies (p. 99). It was Jefferson's influence, comments Phillip (1901) that dominated the organization of the University of Virginia, and in 1825 it opened on the basis of one degree with an

"elective system of studies, by which each student was permitted to elect freely the one or more departments in which he would do his work; his free choice made under the advice of those older and wiser, and from an appreciation of his own needs" (p. 208).

During the years from approximately 1870 to 1910, reports Butts (1939) a series of studies were made when the interest in the elective system was running highest (p. 239). Discussed in the next section.

"The credit system," explains Levine (1977) "was introduced in part of the growing practice of allowing students to include elective courses in their undergraduate programs. Colleges needed some mechanism for keeping track of the comparative academic worth of the courses students took and of student progress toward their degrees" (pp. 158-59).

In the contemporary undergraduate curriculum, electives, according to The Carnegie Foundation for the Advancement of Teaching are:

"Subjects students study of their own free choice. The only basic requirement is that students must take enough elective units, in addition to those earned in the major and in required general education, to meet the minimum number of units of the college requires each student to take in order to graduate or earn a degree" (p. 122).

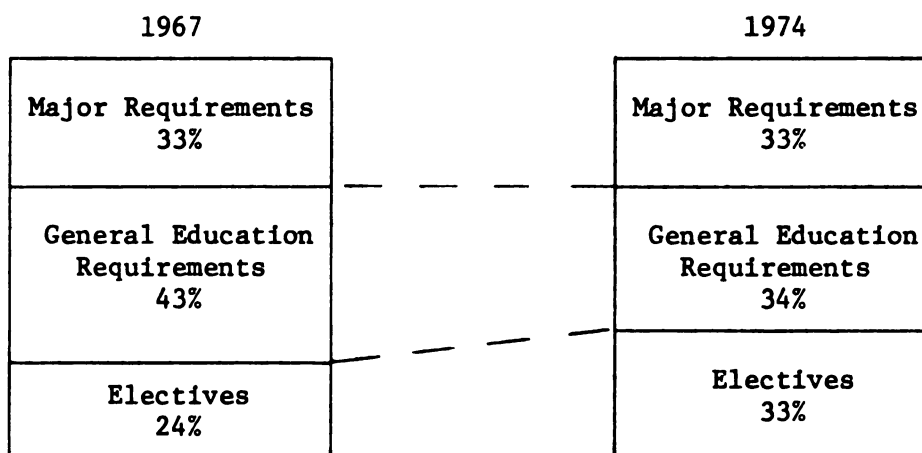
"Presumably," remarked Dressel and DeLisle (1969), "these provide for individualizing a program by permitting students to select on the basis of personal interests or goals, rather than because of faculty-determined principles" (p. 34).

As of 1977, at most colleges and universities, electives now represent about one-third of the total curriculum, but there was until recently some pressure for making them the dominant component of undergraduate education (Carnegie Foundation for the Advancement of Teaching, 1977, p. 201). In 1969 a majority of American undergraduates (56 percent) agreed that "undergraduate education would be improved if all courses were elective" and so did 20 percent of the faculty (Carnegie Surveys, 1969-1970, in Trow, 1975, p. 26).

Components' Share of the Curriculum

In a study of the curriculum (between 1967 and 1974) conducted by Blackburn and his associates (1977) at the University of Michigan, they

were concerned with the three major components of the curriculum: general education, the major, and electives, and their share of the undergraduate curriculum. The proportions of the curriculum occupied by these three components in 1967 and 1974 are shown in Figure 2:2. The overall change involves a substantial reduction in general education and a corresponding increase in electives, with the result that by 1974 the three major components came to have essentially equal proportions of the undergraduate curriculum (pp. 10-11).



SOURCE: Blackburn, et. al., 1977, pp. 10-11.

FIGURE 2:2

Percentage of curriculum devoted to major requirements, general education requirements, and free electives in four-year institutions of higher education, 1967 and 1974

SUMMARY

A contemporary overview of the three traditional components of the undergraduate curriculum: breadth (general education), depth (the major), and elective was presented. In this overview, current contemporary definitions of general education, the major, and electives were given. General education is the breadth component of the undergraduate curriculum and is usually defined on institution-wide or college-wide basis. It generally involves study in several subject areas and frequently aims to provide a common undergraduate experience for all students at a particular institution. The major is that of the curriculum in which a student concentrates on one subject or group of subjects. Its content is usually defined by one academic department, but it can also be defined jointly by two or more departments and, in special cases (and with faculty approval) by individual students. Electives are subjects students study on their own free choice. The only basic requirement is that students must take enough elective units, in addition to those earned in the major and in required general education, to meet the minimum number of units the college requires each student to take in order to graduate or earn a degree.

In addition to these definitions, analyses of each were also given. For general education, the percentage of undergraduate enrollments and teaching faculty in humanities, social sciences, and natural sciences were given, according to the Carnegie Surveys of 1969-1970 and 1975-1976 (as reported in The Carnegie Foundation for the Advancement of Teaching, 1977). Accordingly: humanities majors decreased from 9 to 5 percent of all undergraduates between 1969 and 1976; while the percentage of faculty teaching humanities decreased from 19 to 18 percent during

this same period. The social sciences majors decreased from 18 percent to 8 percent between 1969 and 1976. The percentage of faculty members teaching in the social sciences was the same in 1976 as it was in 1969--12 percent. In the natural sciences (physical and biological) there was an increase of 3 percent from 12 percent in 1969 to 15 percent in 1976.

For the major component, from the Carnegie Council's Catalog Study (as reported in Levine's Handbook on Undergraduate Curriculum, 1977), occupational areas (business, education, engineering, health sciences, and trade and technical arts) generally required more time for the major than the arts and science subjects (humanities, social sciences, and natural sciences). Among the arts and sciences, the natural sciences tend to require the longest time for a major, while the social sciences required the least time. Among occupational programs, engineering, health sciences, and trade and technical arts required the greatest amount of concentration.

Overall degree requirements for the three traditional components of the undergraduate curriculum: general education, the major, and electives (as reported in Blackburn and associates' 1976 study of the curriculum between 1967 and 1974) there was a substantial reduction in general education from 43 percent in 1967 to 34 percent in 1974; and a corresponding increase in electives from 24 percent in 1967 to 33 percent in 1976. There was no increase in the major component. The net result over this period was that the three major components of the undergraduate curriculum came to have essentially equal shares.

Comments on Remedial Courses,
Non-Discrimination Policy Statements (as published in college
catalogs), and Minority Courses

Remedial Education-Some Definitions

Cross (1976, p. 30) and Levine (1978, p. 55), reported that the terms remedial and developmental education are frequently used as synonyms for compensatory education, but suggested that there are important differences between the two. "'Remedial' education implies that remediation of student deficiencies in order that the student may enter a program for which he was previously ineligible. Its emphasis is upon correcting weaknesses'" (Levine, p. 55). "Whereas 'developmental' or 'compensatory' education refers to the development of skills or attitudes and may not have anything to do with making a student eligible for another program. Under these latter approaches, curricular materials are frequently modified to begin credit work where the student is, and the academic calendar modified so that the student can move at his own pace in acquiring mastery of a course" (Cross, p. 30).

Roueché (1968, pp. 21-22), provided this definition, "In general terms remediation means making up--remedying--student deficiencies. Remediation implies that an institution is attempting to get a student from where he is to where he wants to be. It conveys the image of providing students with a second chance."

Cross (p. 31), comments these definitions suggests that the distinction between remedial and developmental education lies in the pedagogical sophistication of the approach. In her view, a more useful distinction is to be found in the purpose or goal of the program. "If the purpose of the program is to overcome academic deficiencies, I would term the

program remedial, in the standard dictionary sense in which remediation is concerned with correcting weaknesses. If, however, the purpose of the program is to develop the diverse talents of students whether academic or not, I would term the program developmental." She supports developmental education where "Its mission is to give attention to the fullest possible development of talent and to develop strengths as well as to correct weaknesses. Remediation in academic skills areas is a legitimate part of developmental education" (p. 31). In a similar vein, Roueche (1968, p. 22) adds, "Society cannot afford to cast aside individuals who may, given the opportunity, achieve a higher level of personal, academic, and occupational competence than they had in late adolescence; rather, society should encourage all individuals to learn to the limits of their abilities."

Brief History

Contrary to popular belief remedial education (and subsequently remedial courses) is not a new phenomenon within higher education brought into being by the Civil Rights movements and equal educational opportunity. Cross (1976, p. 24) and Levine (1978, p. 56), reported that the first course in remediation for academic deficiencies was introduced at Wellesley College (Massachusetts) in 1884. "The notion that colleges bear some responsibility for helping students overcome weaknesses in academic backgrounds and skills has been a part of the American college scene ever since" (Cross, p. 24).

"In the early years of higher education," remarked Cross (p. 25), "the perceived cause of poor academic performance was poor study habits.

It is easy to imagine that the sons and daughters of 'good' families were seen not as stupid, or the products of poor elementary training, but as immature and in need of discipline in planning and organizing their study." Consequently, the original remedial course was a voluntary noncredit how-to-study course, developed as a student service by the dean of students office (Cross, p. 25; Levine, p. 57).

The course sought to promote good study habits through attention to such things as the proper distribution of time, efficient procedures in note taking, tests and how to study for them, the proper study atmosphere, and appropriate health practices (Cross, p. 25).

"In the late 1930s and early 1940s," remarked Levine (p. 57), "remedial reading instruction was introduced, often as supplement to the how-to-study courses." Cross (p. 25) adds, "Thus, the perception of the problems of low academic achievers was broadened to include inadequate development of fundamental academic skills in reading speed, comprehension, vocabulary, and other so-called mechanics of reading." "During this period," remarked Levine (p. 57) "prior training was thought the primary cause of student deficiency."

"In the 1950s and early 1960s," continued Levine (p. 57), remedial education focused upon high ability students performing poorly academically. In the mid-1960s, colleges became more interested in low-academic-ability students:

The remedial efforts of the period included intensive mathematics and English courses; counseling; and U.S. government-supported programs such as Upward Bound, created in 1965, and Special Services to Disadvantaged Students, established in 1968, which were designed to provide students with compensatory instruction, counseling, and support services. The causes for academic deficiencies were thought to be low academic ability, psychological-motivational blocks to learning, and sociocultural factors.

Cross (p. 34) reported that two important events were taking place in higher education in the 1960s--the drive for civil rights and the rapid expansion of open-admissions colleges. "However, research clearly demonstrates, that the overwhelming majority of low achievers who gained admission to colleges through open-door policies were not ethnic minorities. They were predominantly the white sons and daughters of blue-collar workers.

Nevertheless, many people, on and off the campuses, had the inaccurate notion that remedial classes were established for ethnic minorities. The perceptual problem was exacerbated when many of the remedial programs were placed under the auspices of federally funded programs for the 'disadvantaged'--which usually meant ethnic minorities. The result was a tremendous pressure to 'prove' that a little remedial or compensatory education was all that was needed for ethnic minorities to join the mainstream of higher education.

"In the 1970s," continued Levine (p. 57) "colleges that cater to students low in academic skills and information shifted from remedial to compensatory education. This shift involved the use of tutors and laboratory technicians in addition to counselors and faculty members."

Non-Discrimination Policy
Statement (As Published In College Catalogs)

Discrimination Prohibited

No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or be so treated on the basis of sex under most education programs or activities receiving Federal assistance.

It was not until the passage of President Johnson's Executive Order 11246 (Title VI of the Civil Rights Act of 1964, "Non-Discrimination in Federally Assisted Programs) that colleges and universities receiving federal assistance for research or development were required by federal law to publish in all correspondence relating to higher education a

statement of non-discrimination. However, this law does not only apply to colleges and universities of higher education, it applies to trade and technical schools, and other educational institutions receiving federal assistance.

Prior to the passage of President Johnson's Executive Order 11246, many colleges and universities over the years received federal assistance in the millions of dollars to conduct research, particularly in areas of military defense. Powell (1970, p. 76), remarked, "Millions, I should say billions of dollars a year are poured into our universities from the defense department to promote the kinds of research that leads us into Vietnam, the ABM, nuclear strategies, and all the other things that many of us find so abhorrent to foreign policy in this country. Without the universities, our defense department and defense establishment could not survive a month were it not for the willing and thoughtful cooperation of them." In a similar vein, Winston (1974, p. 212), remarks, "Universities, as a vital part of the 'knowledge,' were identified with the political policies opposed by radical students. This should not have been entirely a surprise to university administrators, since an increasingly close involvement with government and industry was the hallmark of the strongest universities in the United States."

The passage of Johnson's Executive Order was, and is, a political issue, but the reality that confronts colleges and universities and other educational institutions is simple: all educational institutions receiving federal assistance must publish a non-discrimination policy statement in all correspondence relating to education. To assist educational institutions receiving federal assistance, The Federal

Interagency Committee on Education of the Department of Health, Education, and Welfare published a guide entitled "Keeping Your School or College Catalog in Compliance with Federal Laws and Regulations," 1978. This guide represents a collaborative effort of several education associations and those federal agencies which administer educational programs to assist educational institutions in bringing their catalogs and other informational materials into compliance with Federal laws and regulations.

Minority Studies*

It was the protest demands of Chicano and black students during the mid 1960s and early 1970s that gave birth to minority studies and not the institutions of higher education. This is an important landmark since minorities did not have a precedent to draw from. The colleges and universities that acknowledged minorities studies did so grudgingly. The political environment out of which minority studies came set the stage for the polemic academic debate that was soon to come. Deep-rooted in this debate was the question of legitimacy. Henderson (1974, p. 72) and Mayhew (1977, p. 127) reported beside minority studies, there were demands for programs, departments, minority student unions, and increased financial aids for minority students.

*The use of the term "minority" refers to America's traditional minorities-- blacks and Chicanos. However, the term is not meant to be exhaustive, but it was these groups that institutions of higher education expressed their concerns. In addition, literature pertinent to minority studies have generally centered around blacks, but in reference they included other minorities, i.e., "blacks and other minorities."

Minority studies were also viewed as an important aid to develop a sense of minority identity and pride in students who were encountering for the first time the full impact of the predominant majority culture that existed on college and university campuses. Secondly, minority studies challenged the purposes of higher education; minority students wanted their educational experiences to be relevant to them as minority people. Minority students were not satisfied with the quality of the curriculum of humanities, history, and social sciences suffered severe criticism on the basis that they failed to depict the true cultural, intellectual, historical, psychological, and sociological role of minorities in American society (Mayhew, 1977, pp. 141-142).

Thus, the demands for minority studies and/or programs, and/or departments centered around the indictment that higher education had failed in its responsibility to equally educate and illustrate minorities. The demands were political since minorities questioned traditional educational values. Any academic request for the implementation of minority study courses had to be legitimized before they received any academic consideration from the colleges' central administration and eventually from departments that were to house them. Hence, the polemic academic debate between minority staffs and the central administration was a central issue. The demands were also political because most colleges and universities could not legitimize their position on how they recruited minority students and faculty members, in how they related to the minority community, and in the kinds of courses they offered.

The curriculum that developed out of the newly formed programs and/or departments were for the most part developed out of spontaneity by misguided students or by whimsical ideas without regard to historical or cultural needs. The faculty members who were recruited to teach the courses were either unqualified or unsophisticated in their attempts. Jordon (1975, p. 161) and Mayhew (1977, p. 142) remarked, the availability "pool" of qualified minority teachers were virtually nil, and those who were qualified were sought out by colleges and universities who wanted to "window-dress" their institutions. "College and universities faculties are over 95 percent white and high-ranking minority administrators are just as rare as high-ranking corporate officers" (Jordon, p. 160).

The initial courses that were developed and implemented were primarily but not exclusively centered around minority identity, and those students who took such classes were mostly minorities. This approach was necessary since most minorities were not totally aware of their historical, social, and cultural roots. Another approach was to define minority studies and how they could relate to the traditional curriculum since available literature on minorities depicted them as a sub-cultural element in society--they were supposed to return to their ancestral lands, or become an indistinguishable part of the majority culture.

The prevailing attitudes of most colleges and universities viewed the early minority courses as being revolutionary and as a training ground to develop radical and militant minorities. In actuality, the initial thrust of minority studies was an attempt to articulate a new system of legitimacy. For example, the new courses attempted to explore new ways to approach societal changes. Political science is an example of

how groups of peoples interact with society; economics attempts to weaken and strengthen the economic system; history legitimizes itself by circumventing historical truth; sociology attempts to eradicate social problems by researching the problem, and psychology attempts to mode cultural differences. The traditional curriculum as perceived by minorities recognized its blatant weaknesses, vis-a-vis their own lives and experiences-- minorities were demanding an alternative to their education. "White campuses . . . treated anything pertaining to minorities solely as subjects for doctoral theses" (Henderson, p. 73).

The polemic debate minority staffs and the central administration was twofold: On the one hand minorities were asking that a curriculum be designed by which it could provide a vehicle by which young minorities could find their historical roots and resurrect their culture, and serve as a refreshing pedagogical idea for developing and facilitating the growth of young minorities in education. On the other hand, colleges and universities were denying expansion because of financial and other priority reasons.

Since the advent of minorities on campuses and the inclusion of minority studies in the college curriculum, there are many colleges and universities that house minority departments and in some places, minority colleges. Any final appraisal is difficult to assess since minority studies and their participation in higher education is still a recent academic phenomenon.

More recently has been the expansion of women's courses in higher education. One of the major purposes of women's courses was to emphasize women's contribution to society, both on the contemporary and historic

scene. Another purpose was to restore women's self-esteem and to instill a sense of identity.

CHAPTER III

DESIGN OF THE STUDY

Introduction

The design of this study, while not a replication of any previous research reviewed in the literature, has nevertheless evolved from research methodology and recommendations of earlier researchers concerned with changing practices and trends of the undergraduate curriculum as documented by the college catalog.

The Sample

The sample of this study was a select group of sixteen private liberal arts colleges and their catalogs spanning a period of twenty-five years: 1953-1978. The sample does not represent any particular size, control, or geographic location. However, the sample is representative of Liberal Arts Colleges I and II, and Comprehensive Colleges and Universities, as identified by the Carnegie Commission on Higher Education's A classification of Institutions of Higher Education, (1973). Of the sixteen colleges, 9, or 6.3 percent are classified as Liberal Arts Colleges I; 6, or 1.1 percent are classified as Liberal Arts Colleges II, and 1, or 2.1 percent is classified as a Comprehensive Universities and Colleges. (Appendix A).

College catalog representation for each year during this twenty-five year period was not available, rather the catalogs ranged from 1953-1978 in staggered single years, and on occasion, two-year catalogs were represented. Because of this arrangement, colleges and their catalogs were organized into five, five-year block intervals. For each block

interval, one catalog of each college was selected to represent a five-year block interval. The block intervals were: Block I: 1953-1958, Block II: 1958-1963, Block III: 1963-1968, Block IV: 1968-1973, and Block V: 1973-1978. The total number of catalogs available for this study was 76 out of 80, five catalogs per college per block interval (except Block Interval I ($n = 13$) and Block Interval II ($n = 15$)). (Appendix B).

Methodology

Two methodological approaches were followed: First, a longitudinal approach was used to examine and identify the changes in the undergraduate curriculum across institutions for each block interval and over the entire twenty-five year period: 1953-1978. Second, a cross-sectional approach was used to examine and identify the changes in the undergraduate curriculum between institutions over this same twenty-five year period.

Longitudinal Approach: For each college and its catalog in each five-year block interval, tabulations were arranged and recorded to each research question asked in the study. For example, how many semester hours were required for the baccalaureate degree? Thus, catalog documentation was recorded across each college for each five-year block interval spanning over a period of twenty-five years: 1953-1978. Dressel and DeLisle (1969) used a similar approach when they recorded undergraduate trends of 322 institutions between 1957-1967 where each institution was asked to provide a current catalog (1967) and one of ten years previous (1957). Blackburn and associates (1976) also used this similar approach with 271 institutions between 1967-1974.

Cross-sectional Approach: For each college and its catalog in each five-year block interval, tabulations were arranged and recorded according to each research question asked in the study. For example, how do institutions differ in the number of semester hours required for the baccalaureate degree? Thus, catalog documentation was recorded between each college during each five-year block interval, and subsequently, for the entire twenty-five year period: 1953-1978. This approach, however, was not revealed in the literature pertinent to this study.

Treatment of the Data

1. Table formats, graphs, and descriptive statistics (percentages) were used to depict the various curriculum changes and/or trends.
2. Narrative statements were provided to describe other changes and/or trends in the curriculum.

Restriction of Catalog Research

1. Research questions were directed at the academic year only (i.e., summer courses were not included in the analysis of the data).
2. Graduate courses were not included in the analysis of the data.
3. Where courses were offered for variable credit (i.e., no fixed credit was assigned) they were not included in the analysis of the data.
4. Where courses were offered for variable credits (i.e., 2-3 credits), the highest number was included in the analysis of the data.
5. Announcement of courses offered in alternate years (i.e., they did not fall within a specified catalog year) were not included in the analysis of the data.
6. Cross-listed courses were counted once and assigned to one department.

7. Two-year catalogs were treated as a single year catalog (i.e., only the first year was included in the analysis of the data.

Organization of Analysis

For each college and its catalogs in each five-year block interval, tabulations included the following:

1. Number of semester hours required for graduation between Block Interval I: 1953-1958 and V: 1973-1978.
2. Number of semester hours required for graduation across and between all institutions: 1953-1978.
3. Proportions of undergraduate education spent in general education, the major, and electives (in percentages) between Block Interval I: 1953-1958 and V: 1973-1978.
4. Proportions of undergraduate education spent in general education, the major, and electives (in percentages) across all institutions over a period of twenty-five years.
5. Number of courses and majors offered between Block Interval I: 1953-1958 and V: 1973-1978.
6. Number of courses and majors offered across and between all institutions over a period of twenty-five years.
7. Curricular requirements in English composition, foreign language, physical education, and religion, over a twenty-five year period.
8. Changes in college calendar between and across all institutions over a period of twenty-five years.
9. Curriculum structural arrangements between and across institutions over a period of twenty-five years.
10. Comprehensive examinations and other types of requirements associated with the baccalaureate degree.
11. Percentage of colleges offering remedial courses, percentage of colleges publishing non-discrimination policy statements, and percentage of colleges offering minority courses.

In addition to tabulations, narrative statements were made about a shift away from or toward English proficiency testing, specifications of prerequisite courses, and permitting credits-by-examination as part

of the requirements for the baccalaureate degree. Also, presented were narrative statements about curricular structural arrangements (e.g. departments, divisions) and quantitative measures (e.g. semester hours, credits).

General Education

Within the general education requirements of each catalog, the credit hours for all courses fulfilling general education requirements were tabulated according to the three major disciplinary groups: humanities, the social sciences, and natural sciences. The majority of the catalogs listed courses assigned to each of the three disciplinary groups and frequently indicated the number of hours required. For catalogs that simply specified "Required Courses for Graduation" such as English composition, foreign language, physical education, religion, philosophy, sociology, and mathematics, each course was assigned to one of the three disciplinary groups. For catalogs that stated "Distribution Requirements" the courses were also assigned to one of the three disciplinary groups. Courses in English composition, foreign language, physical education, and religion were tabulated separately and are treated in research question number four.

The Major

The credit-hours for all courses required in the major were tabulated according to the minimum number of hours specified by the catalog. This figure included minors or related work required to complete a major but does not include recommended courses, either within or outside the major department. For example, a psychology major might require 24 credits of psychology, 16 hours of related work in the social sciences, and

recommended 12 credit hours in the humanities. In this example, the number of credit hours required for a major in psychology would be 40 semester hours. The major total does not include hours satisfying general education requirements; had it done so, the elective credits available to the student would have appeared to be fewer than they were.

Electives

The credit-hours for all courses fulfilling elective requirements were tabulated subsequent to tabulations of general education and major requirement. Determining electives was generally a straightforward process; by adding the overall course credits in general education to the minimum number of credits required in the major and subtracting these from the total number of credits required for graduation, the number of hours left over were tabulated as electives.

Quantitative Measures

For each college, the minimum number of credits required for the baccalaureate degree was obtained from its catalogs. Since the majority of the colleges used the semester hour as the quantitative measure of unit, the semester hour was adopted for the purpose of comparability. Although some colleges stated their quantitative measurements in courses or units, they provided their equivalent in semester hours. Two colleges stated their quantitative measurements in year-course and year-hour, they too provided their equivalent in semester hours. One college used the quarter-hour as their quantitative measurement. In this case, the conversion to semester hour was two-thirds of the quarter-hour value.

Research Questions

The following eleven research questions were chosen because they conform primarily, but not exclusively, to questions asked by earlier researchers concerned with changing practices and contemporary trends of the undergraduate curriculum (Dressel & DeLisle 1969, and Blackburn et. al. 1976) based on the contents of published catalogs:

1. How had the number of hours required for the baccalaureate degree changed over a period of twenty-five years?
2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?
3. How had the number of courses and majors offered for the baccalaureate degree changed over a period of twenty-five years?
4. How had the requirements for English composition, foreign language, physical education, and religion changed over a period of twenty-five years?
5. Was there a shift away from or toward English proficiency testing as part of the requirements for the baccalaureate degree?
6. What changes in curricular structural arrangements were evident within and across institutions over a period of twenty-five years?
7. What quantitative measures (e.g. credits, semester hours, quarter-hour, term, unit, course, etc.) were used in specifying degree requirements within and across institutions?
8. What academic systems (e.g. semester, quarter, etc.) were used in specifying degree requirements over a period of twenty-five years?
9. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

10. Was there a shift away from or toward specifications of pre-requisite courses in general education, the major, and electives as part of the requirements for the baccalaureate degree?

11. Was there a shift away from or toward accepting credits-by-examination as part of the baccalaureate degree requirements?

The remaining three research questions were included because earlier researchers concerned with changing practices and contemporary trends of the undergraduate curriculum did not address them:

12. Were remedial courses offered during the span of twenty-five years? Was credit awarded. Were credits applicable toward the baccalaureate degree?

13. Did institutions publish a Non-Discrimination Policy Statement over a period of twenty-five years?

14. Were minority courses offered during a period of twenty-five years?

Summary

In this chapter the design of the study was presented. The study was historical, descriptive, and empirical in content and included sixteen private liberal arts colleges representative of Liberal Arts Colleges I and II, and Comprehensive Universities and Colleges II. Catalogs ranged from 1953 through 1978 and were organized into five, five-year block intervals over a period of twenty-five years. The method of research was longitudinal and cross-sectional. Treatment of the data were reported. Catalog restrictions were used in the analysis of the data. Organization and analyses of the data were presented. The research question were presented and were answered based a longitudinal and cross-sectional analyses of the contents of published catalogs.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

Introduction

This chapter reports the data collected from seventy-six catalogs representing sixteen private liberal arts colleges spanning a period of twenty-five years: 1953-1978. College catalog representation for each consecutive year during this twenty-five year period was not available, rather the catalogs ranged from 1953 through 1978 in staggered single years, and on occasion, two-year catalogs were represented. Because of this arrangement, colleges and their catalogs were organized into five, five-year Block Intervals: Block I: 1953-1958, Block II: 1958-1963, Block III: 1963-1968, Block IV: 1968-1973, and Block V: 1973-1978. For each Block Interval, one catalog of each college was selected to represent a five-year block interval (except in Block Interval I where $n = 13$ and Block Interval II where $n = 15$). Total number of catalogs included in the study was 76 out of possible 80. The researcher is aware of the unequal number of catalogs for each block interval, and that the analysis may mitigate against the findings.

Research Questions and Interpretations of the Findings

The following eleven research questions were chosen because they conform, primarily, but not exclusively, to questions asked by earlier researchers concerned with changing practices and contemporary trends of the undergraduate curriculum (Dressel and DeLisle 1969, and Blackburn and associates 1976) based on the contents of published catalogs.

1. How had the number of hours required for the baccalaureate degree changed over a period of twenty-five years.

For the sixteen colleges included in the study, the average number of semester hours required for the baccalaureate degree increased from 120 to 128 between Block Intervals I: 1953-1958 and V: 1973-1978. Table 4:12 displays these changes for each college: one decreased semester hour requirements, six increased them (the count includes one college when it was a two-year college during Block Interval I), six kept them the same, and three were excluded during Block Interval I and were not included in the change category. The largest increase was Mars Hill College (when it was a two-year college) from 68 to 140. Next largest increase was Alma College from 120 to 126.

Table 4:13 reveals the number of semester hours required for graduation across and between all institutions during each block interval.

2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?

For the colleges included in this study, the typical course of study has consisted of three broad areas. General education requirements represent the means of achieving breadth in the curriculum; the major requirements are viewed as the medium through which students add depth to their educational experience. The remainder of the student's curriculum--over which the students have complete control--has traditionally been referred to as the elective segment of undergraduate study.

One overall finding of this study is that the relative weight of each of these areas--general education, the major, and electives--

TABLE 4:12

Average Number of Semester Hours Required for Graduation

	Block Interval I: 1953-1958	Block Interval V: 1973-1978	Change
Albion	124	124	0
Alma	120	136	+16
Amherst	NCA	128	-
Birmingham-Srn.	127	128	+ 1
Carleton	NCA	113	-
Colby	120	120	0
Converse	122	122	0
Furman	128	126	- 2
Guilford	128	128	0
Hope	126	126	0
Kalamazoo	120	123	+ 3
Kenyon	128	128	0
Mars Hill	68#	140	+72
Reed	120	126	+ 6
St. Olaf	NCA	140	-
University-Pfc.	124	132	+ 8
TOTALS:	1555	2040	
Mean:	120	128	+ 8

NCA = No catalog available.

= Two-year college during this block interval.

TABLE 4:13

Number of Semester Hours Required for Graduation Across and Between Colleges: 1953-1978.

College:	# of Catalogs	Block I 1953-1958	Block II 1958-1963	Block III 1963-1968	Block IV 1968-1973	Block V 1973-1978	Block Total	Block Mean
Albion	5	124	124	124	124	124	620	124
Alma	5	120	120	123	123	136	622	124
Amherst	4	NCA	128	128	128	128	512	128
Birmingham-Srn.	5	127	127	127	128	128	637	127
Carleton	4	NCA	123	123	113	113	472	118
Colby	4	120	NCA	120	120	120	480	120
Converse	5	122	122	122	122	122	610	122
Furman	5	128	128	126	128	126	636	127
Guilford	5	128	128	128	128	128	640	128
Hope	5	126	126	126	126	126	630	126
Kalamazoo	5	120	120	126	123	123	612	122
Kenyon	5	128	136	136	128	128	656	131
Mars Hill	5	68#	68#	128	128	140	532	106
Reed	5	120	120	120	126	126	612	122
St. Olaf	4	NCA	128*	140	140	140	548	137
University-Pfc.	5	124	124	124	132	132	636	127
TOTALS	76 (n=13)	1555 (n=15)	1822 (n=16)	2021 (n=16)	2017 (n=16)	2040	9454	
Mean		120	121	126	128	128	124	

NCA = No catalog available.

= Two-year college during these block intervals.

had changed over this twenty-five year period. The general education component diminished considerably, while the major component remained relatively stable; the net effect was an increase in the elective component of the student's undergraduate education. The elective component increased from 26.5 percent in Block Interval I: 1953-1958 to 35 percent in Block Interval V: 1973-1978. Table 4:14 reveals these changes. This trend toward fewer general education requirements and an increase in student freedom through electives was evidenced across all college (Table 4:15, page 119).

TABLE 4:14

Proportion of Undergraduate Education Spent in General Education, The Major, and Electives (in percentages) Between Block Interval I: 1953-1958 and Block Interval V: 1973-1978.

	Block Interval I: 1953-1958	Block Interval V: 1973-1978
General education requirements (mean)	54.1	42.0
Major requirements (mean)	19.4	23.0
Available electives (mean)	26.5	35.0

3. How had the number of courses and majors offered for the baccalaureate degree changed over a period of twenty-five years?

The average number of courses offered increased from 351 to 574 between Block I: 1953-1958 and Block V: 1973-1978. Table 4:16 displays these changes for each college: twelve colleges increased the number of courses offered (the count includes one college when it was a two year college during Block I), one decreased them and three were excluded

TABLE 4:15

Proportions of Undergraduate Education Spent in General Education,
The Major, and Electives (in percentages) Across All Colleges
Over a Period of Twenty-Five Years: 1953-1978

	Block I 1953-1958	Block II 1958-1963	Block III 1963-1968	Block IV 1968-1973	Block V 1973-1978
All colleges					
General education re- quirements (mean)	54.1	51.6	48.3	45.0	42.0
Major requirements (mean)	19.4	19.2	20.6	21.0	23.0
Available electives (mean)	26.5	29.2	31.1	34.0	35.0

during Block Interval I and were not included in the change category.

For these same colleges, the average number of majors also increased from 21 to 25 between these same Block Intervals: eight colleges increased the number of majors offered (this includes the two-year college), three decreased them, two had no change, and three were excluded in the change category. Table 4:17 reveals these changes between and across all institutions included in the study.

4. How had the requirements in English composition, foreign language, physical education, and religion changed over a period of twenty-five years?

Another overall finding of this study was that four subjects considered essential to a liberal arts education--English composition, foreign language, physical education, and religion--had changed over a period of twenty-five years. Fewer colleges required these subjects in Block Interval V: 1973-1978 than did in Block Interval I: 1953-1958: 92 percent in

TABLE 4:16

Number of Courses and Majors Offered Between Block Interval I:
1953-1958 and Block Interval V: 1973-1978

College	Block Interval I: 1953-1958		Block Interval V: 1973-1978		Course Change	Major Change
	Courses	Majors	Courses	Majors		
Albion	572	23	628	22	+ 56	- 1
Alma	406	21	652	22	+246	+ 1
Amherst	NCA	NCA	594	25	-	-
Birmingham-Srn.	409	27	526	27	+117	0
Carleton	NCA	NCA	592	24	-	-
Colby	317	21	540	20	+223	- 1
Converse	231	16	539	27	+308	+11
Furman	355	24	556	24	+201	0
Guilford	233	16	412	23	+179	+ 7
Hope	346	19	654	29	+308	+10
Kalamazoo	312	22	478	26	+166	+ 4
Kenyon	338	16	549	22	+211	+ 4
Mars Hill	165#	18	623	30	+458	+12
Reed	182	14	311	21	+129	+ 7
St. Olaf	NCA	NCA	836	29	-	-
University-Pfc.	698	31	689	27	- 9	- 4
TOTALS	4564	268	9179	399	+4615	+38
Mean	351	21	574	25	-223	+ 4

NCA = No catalog available.

= Two year college during this block interval.

TABLE 4:17

Total Number of Courses and Majors Offered Across and Between
Colleges for Each Block Interval Over a Period
of Twenty-Five Years: 1953-1978

College	Block I: 1953-1958		Block II: 1958-1963		Block III: 1963-1968		Block IV: 1968-1973		Block V: 1973-1978	
	# of Crs Offered	# of Mjs Offered	# of Crs Offered	# of Mjs Offered	# of Crs Offered	# of Mjs Offered	# of Crs Offered	# of Mjs Offered	# of Crs Offered	# of Mjs Offered
Albion	527	23	629	23	658	22	551	22	628	22
Alma	406	21	393	19	442	22	544	22	652	23
Amherst	NCA		368	20	405	21	507	24	594	25
Birmingham-Srn.	409	27	398	23	397	26	464	26	526	27
Carleton	NCA		466	21	417	22	576	24	592	24
Colby	317	21	NCA		356	22	455	23	540	20
Converse	231	16	261	18	355	19	437	23	539	27
Furman	355	24	331	23	474	25	471	25	556	24
Guilford	233	16	276	16	307	17	424	20	412	23
Hope	346	19	348	20	461	26	566	27	654	29
Kalamazoo	312	22	382	21	339	23	363	26	478	26
Kenyon	338	16	314	17	381	20	535	22	549	22
Mars Hill	165*	18	197*	19	460	22	538	21	623	30
Reed	182	14	186	14	250	21	290	21	311	21
St. Olaf	NCA		464	24	513	24	624	27	836	29
University-Pfc.	698	31	748	28	654	24	545	29	689	27
TOTALS	4564	268	5761	306	6869	356	7890	382	9197	399
Mean	351	21	384	20	429	22	493	24	574	25
	n = 13		n = 15		n = 16		n = 16		n = 16	

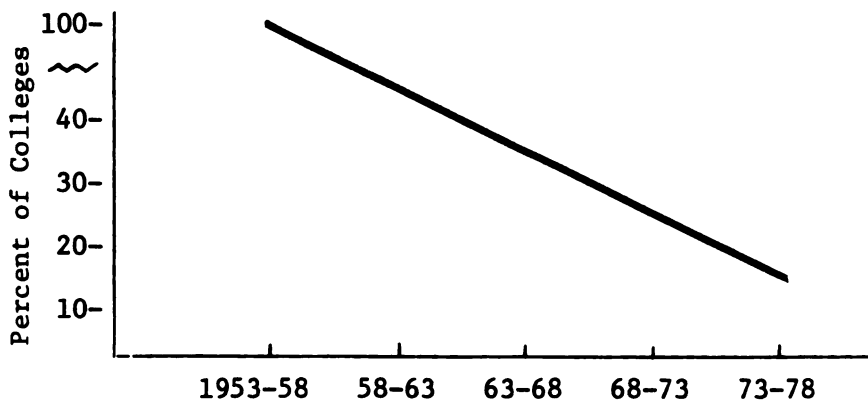
NCA = No catalog available.

* = Two year college.

in 1953-1958 and 75 percent in 1973-1978 required some form of English composition, and the percentage of colleges requiring one-year of English composition also decreased from 77 percent to about 13 percent. One hundred percent and 50 percent required some form of foreign language, and the percentage of colleges requiring two years also decreased from about 39 percent to about 13 percent. One hundred percent and 63 percent required some form of physical education, and the percentage of colleges requiring 3-6 hours (one year) also decreased from 46 percent to about 19 percent. Sixty-nine percent and to approximately 13 percent required religion between 1953-1958 and 1973-1978. (See Table 4:18 through 4:21 on pages 123 and 124). Graph 4:2 on page 125 is a composite of these changes.

5. Was there a shift away from or toward English proficiency testing as part of the requirements for the baccalaureate degree?

Over this twenty-five year period, approximately 81 percent of the colleges had a shift away from English proficiency testing toward requiring English composition. Thirteen colleges in Block I: 1953-1958, or 100 percent to three colleges, or 18.7 percent in Block V: 1973-1978 (n = 16). Graph 4:1 reveals this change.



GRAPH 4:1

Trends in English Proficiency Testing

TABLE 4:18

Trends in the Number of Colleges Requiring English Composition

	Block I		Block II		Block III		Block IV		Block V	
	T* 1953-58	%	1958-63	%	1963-68	%	1968-73	%	1973-78	%
	N		N		N		N		N	
1.	1	7.7	1	6.7	2	12.5	4	25.0	4	25.0
2.	-	-	2	13.3	1	6.3	1	6.3	1	6.3
3.	-	-	-	-	2	12.5	4	25.0	5	31.2
4.	1	7.7	2	13.3	1	6.3	4	25.0	4	25.0
5.	10	77.0	9	60.0	9	56.2	3	18.7	2	12.5
6.	1	7.7	1	6.7	1	6.3	-	-	-	-
T	13**	100.1	15**	100.0	16	100.1	16	100.0	16	100.0

*Type of Requirement:

- | | |
|---------------------------------|------------------------------------|
| 1. None required | 4. Pass test or one term course |
| 2. Demonstration of proficiency | 5. One year required |
| 3. One term course | 6. Pass test or one year required. |

**Number of catalogs included in these Block Intervals.

TABLE 4:19

Trends in the Number of Colleges Requiring Foreign Language

	Block I		Block II		Block III		Block IV		Block V	
	R* 1943-58	%	1958-63	%	1963-68	%	1968-73	%	1973-78	%
	N		N		N		N		N	
1.	-	-	-	-	2	12.5	5	31.2	8	50.0
2.	-	-	1	6.7	1	6.3	1	6.3	-	-
3.	3	23.1	2	13.3	2	12.5	1	6.3	-	-
4.	4	30.8	6	40.0	6	37.5	5	31.2	6	37.5
5.	5	38.5	5	33.3	4	25.0	4	25.0	2	12.5
6.	1	7.7	1	6.7	1	6.3	-	-	-	-
T	13**	100.1	15**	100.0	16	100.1	16	100.0	16	100.0

*Range of Requirements:

1. None required
2. One term (by demonstration of proficiency or completion of the college credits)
3. One year level required
4. One year level required (by demonstration of proficiency or completion of the college credits)
5. Two year level required.
6. Two year level required (by demonstration of proficiency or completion of the college credits).

**Number of catalogs included in these Block Intervals.

TABLE 4:20

Trends in the Number of Colleges Requiring Physical Education

R*	Block I		Block II		Block III		Block IV		Block V	
	1953-58	%	1958-63	%	1963-68	%	1968-73	%	1973-78	%
	N		N		N		N		N	
1.	-	-	1	6.7	1	6.3	2	12.5	6	37.5
2.	3	23.1	4	26.7	4	25.0	2	12.5	1	6.3
3.	1	7.7	-	-	2	12.5	2	12.5	5	31.2
4.	1	7.7	1	6.7	-	-	-	-	-	-
5.	6	46.2	6	40.0	4	25.0	7	43.7	3	18.7
6.	1	7.7	2	13.3	3	18.7	1	6.3	-	-
7.	1	7.7	1	6.7	2	12.5	2	12.5	1	6.3
T	13**	100.0	15**	100.1	16	100.0	16	100.0	16	100.0

*Range of Requirements:

- | | |
|-------------------------|-----------------------------|
| 1. None required | 5. 3-6 hours required |
| 2. Required, no credits | 6. 6-9 hours required |
| 3. 2 hours required | 7. 9 or more hours required |
| 4. 3 hours required | |

**Number of catalogs included in these Block Intervals.

TABLE 4:21

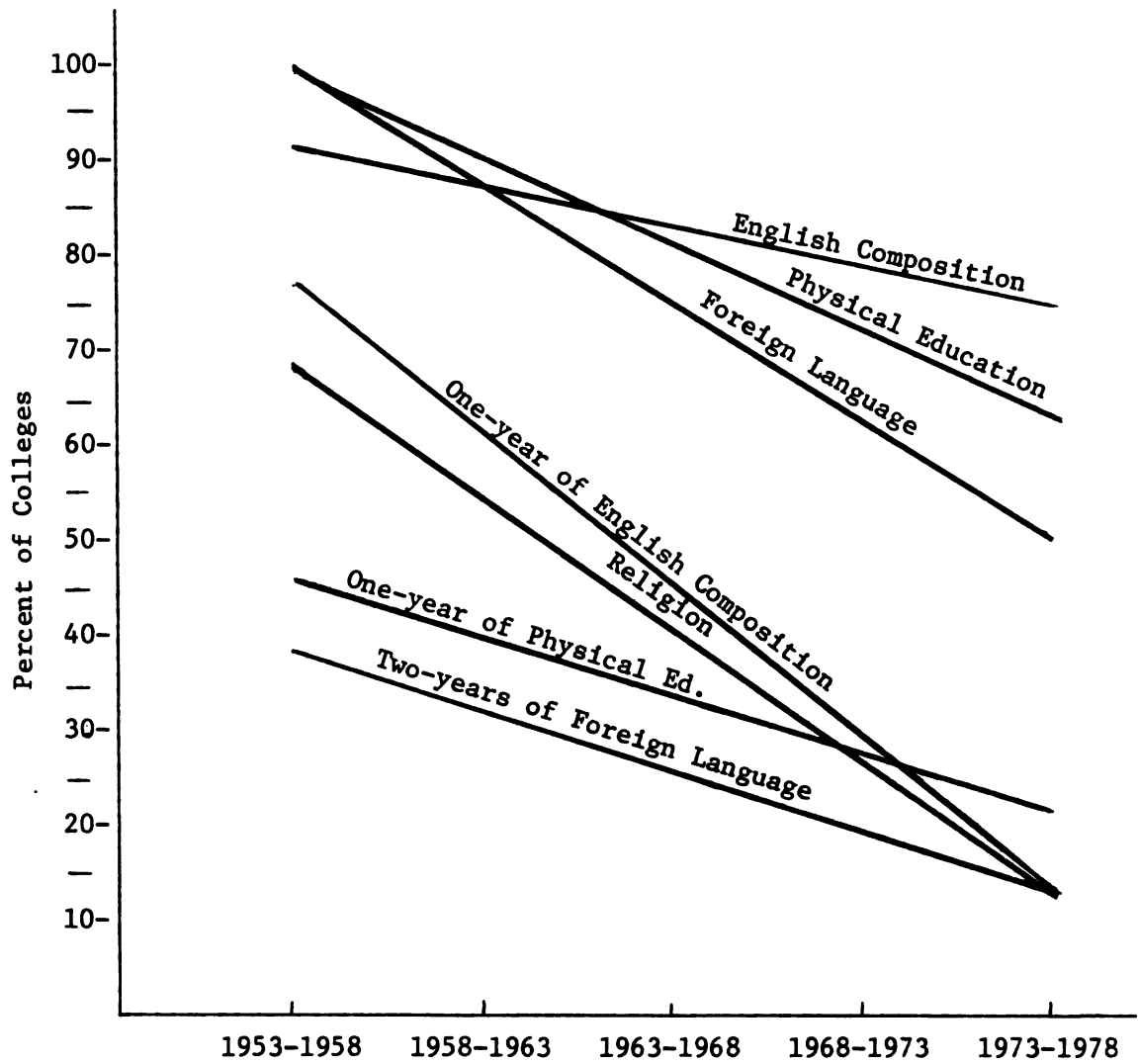
Trends in the Number of Colleges Requiring Religion

R*	Block I		Block II		Block III		Block IV		Block V	
	1953-58	%	1958-63	%	1963-68	%	1968-73	%	1973-78	%
	N		N		N		N		N	
1.	4	31.0	5	33.3	7	43.7	10	62.5	14	87.5
2.	2	15.3	2	13.3	2	12.5	1	6.3	-	-
3.	2	15.3	2	13.3	1	6.3	2	12.5	-	-
4.	3	23.0	3	20.0	3	18.7	2	12.5	1	6.3
5.	1	7.7	1	6.7	1	6.3	-	-	-	-
6.	1	7.7	1	6.7	1	6.3	-	-	-	-
7.	-	-	1	6.7	1	6.3	1	6.3	1	6.3
T	13**	100.0	15**	100.0	16	100.1	16	100.1	16	100.1

*Range of Requirements:

- | | |
|---------------------|---------------------|
| 1. None required | 5. 8 hours required |
| 2. 3 hours required | 6. 9 hours required |
| 3. 4 hours required | 7. 9 hours or more |
| 4. 6 hours required | |

**Number of catalogs included in these Block Intervals.



GRAPH 4:2

Composite Trends in English Composition
Foreign Language, Physical Education, and Religion

6. What changes in curricular structural arrangements were evident between and across institutions over a period of twenty-five years?

Among the colleges included in the study, each had its own distinctive curricular arrangement, e.g., departments, divisions, departments within divisions, departments within groups, departments within categories, and a department of instruction. Albeit there were a variety of arrangements, they usually fell into the rubric of humanities, social sciences, and the natural sciences (some colleges linked mathematics with the natural sciences). There were some colleges which classified humanities as language arts, fine arts, language and literature, and language, literature and speech, while the social sciences and natural sciences remained as specific classifications.

When a college adopted a new arrangement in any given block interval, its catalog did not provide a rationale for the change. Institutional rationales for adopting new curricular structural arrangements were not provided in the catalogs.

The analysis of curricular structural arrangements for colleges included in the study revealed the following characteristics (Table 4:22 and Graph 4:3).

Analysis Between Colleges

At the introduction of the twenty-five year period, approximately 30 percent of the colleges specified the department; approximately 30 percent specified the department within a division; another 30 percent specified the division; and about 8 percent specified the department of instruction. Whereas no college specified the department within groups or departments within categories.

TABLE 4:22
Trends in Curricular Structural Arrangements
Between and Across Colleges Over a Period of Twenty-five Years

A*	Block I 1953-1958		Block II 1958-1963		Block III 1963-1968		Block IV 1968-1973		Block V 1973-1973		Block Total	
	N	%	N	%	N	%	N	%	N	%	N	%
1.	4	30.7	4	26.6	4	25.0	3	18.7	3	18.7	3	18.7
2.	4	30.7	5	33.3	6	37.5	6	37.5	6	37.5	1	6.3
3.	4	30.7	4	26.6	4	25.0	4	25.0	4	25.0	4	25.0
4.	-	-	1	6.7	2	12.5	2	12.5	2	12.5	-	-
5.	1	7.8	1	6.7	-	-	-	-	-	-	-	-
6.	-	-	-	-	-	-	1	6.3	1	6.3	-	-
T	13**	99.9	15**	99.9	16	100.0	16	100.0	16	100.0	8	50.0

*Arrangement:

1. Department
2. Department within division
3. Division
4. Department within groups
5. Department of instruction
6. Departments within categories

**Number of catalogs included in these Block Intervals.

During each succeeding five-year block interval, there was a shifting from one curricular structural arrangement to another, and at the end of the twenty-five year period, approximately 18 percent of the colleges had retained the department, approximately 37 percent had retained the department within division, 25 percent retained the division, and approximately 13 percent adopted the department within groups. The department of instruction was phased out during Block Interval III: 1963-1968, whereas the department within categories emerged during Block Interval IV: 1968-1973 with approximately 6 percent specifying this arrangement and continued this specification at the end of the twenty-five year period.

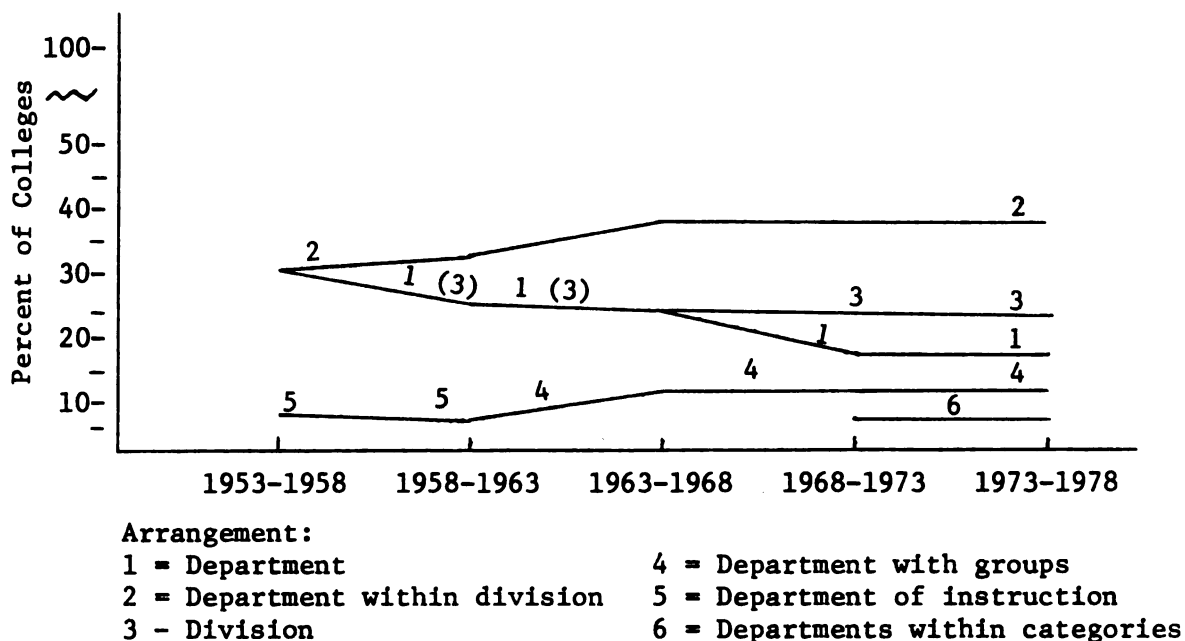
Analysis Across Colleges

1. At the closure of the twenty-five year period, three colleges, or 18.7 percent had retained the department at their curricular structural arrangement. Over this twenty-five year period the percentage of colleges shifting to and/or adopting a new arrangement was negligible.

2. One college, or 6.3 percent had retained departments within divisions at the end of the twenty-five year period. However, at the introduction of this twenty-five year period, 30.7 specified this curricular structural arrangement, at the closure of this same period, 37.5 percent specified this arrangement--an overall decrease of about 24 percent.

3. Four colleges, or 25 percent had retained the division as their curricular structural arrangement at the end of the twenty-five year period. Over this twenty-five year period the percentage of colleges shifting to and/or adopting a new curricular structural arrangement was negligible.

4. Colleges specifying department within groups, department of instruction, and departments within categories were not consistent during each block interval nor were any continuous for the entire twenty-five year period.



GRAPH 4:3

Trends in Curricular Structural Arrangements: 1953-1978

7. What quantitative measures (e.g., credits, semester hour, quarter-hour, term, unit, course, etc.) were used in specifying degree requirements between and across institutions?

During this twenty-five year period, there were a variety of quantitative measures used by these colleges. When colleges shifted and/or adopted a new quantitative measure in any given block interval, they did not provide a rationale of explaining these changes in their catalogs. These decisions apparently lie with curriculum personnel and other college officials.

The analysis of quantitative measures for the colleges included in the study revealed the following characteristics (Table 4:23 and Graph 4:4).

Analysis Between Colleges

The semester hour was the most consistent quantitative measurement specified between colleges over the twenty-five year period. Although it declined gradually during each succeeding block interval, it nevertheless remained relatively stable.

Analysis Across Colleges

Four types of quantitative measures (the semester hour, unit, credit, and course) were specified by the majority of the colleges at the closure of the twenty-five year period. At the introduction of the twenty-five year period, 77 percent of the colleges specified the semester hour. At the closure this same period only 18.7 percent retained this same measurement, a decrease of about 58 percent. Whereas the unit emerged during Block Interval II: 1958-1963 with approximately 7 percent of the colleges specifying this measurement, it closed out this twenty-five year period where 37.5 percent of the colleges specified this measurement. The credit also emerged during Block Interval II but relatively few colleges specified this measurement during the remaining fifteen years. The course emerged during Block Interval IV: 1968-1973 and continued to the closure of this twenty-five year period with 25 percent of the colleges specifying this measurement.

Colleges specifying the quarter-hour, term-course, year-course, and year-hour all emerged during the first 15 years of this 25 year period

TABLE 4:23

Trends in Quantitative Measures: Between and Across Colleges
Over a Period of Twenty-five years

Q*	Block I		Block II		Block III		Block IV		Block V		Block	
	1953-1948	%	1958-1963	%	1963-1968	%	1968-1973	%	1973-1978	%	Total	%
	N		N		N		N		N		N	
1.	10	77.0	10	66.6	7	43.7	4	25.0	3	18.7	2	12.5
2.	-	-	1	6.7	5	31.2	7	43.8	6	37.5	-	-
3.	-	-	1	6.7	1	6.3	2	12.5	2	12.5	-	-
4.	-	-	-	-	-	-	3	18.7	4	25.0	-	-
5.	1	7.7	1	6.7	1	6.3	-	-	-	-	-	-
6.	-	-	1	6.7	1	6.3	-	-	-	-	-	-
7.	1	7.7	-	-	1	6.3	-	-	-	-	-	-
8.	1	7.7	1	6.7	-	-	-	-	-	-	-	-
9.	-	-	-	-	-	-	-	-	1	6.3	-	-
T	13**	100.1	15**	100.1	16	100.1	16	100.0	16	100.0	2	12.5

*Quantitative Measure:

1. Semester

2. Unit

3. Credit

4. Course

5. Quarter-hour

6. Term course

7. Year course

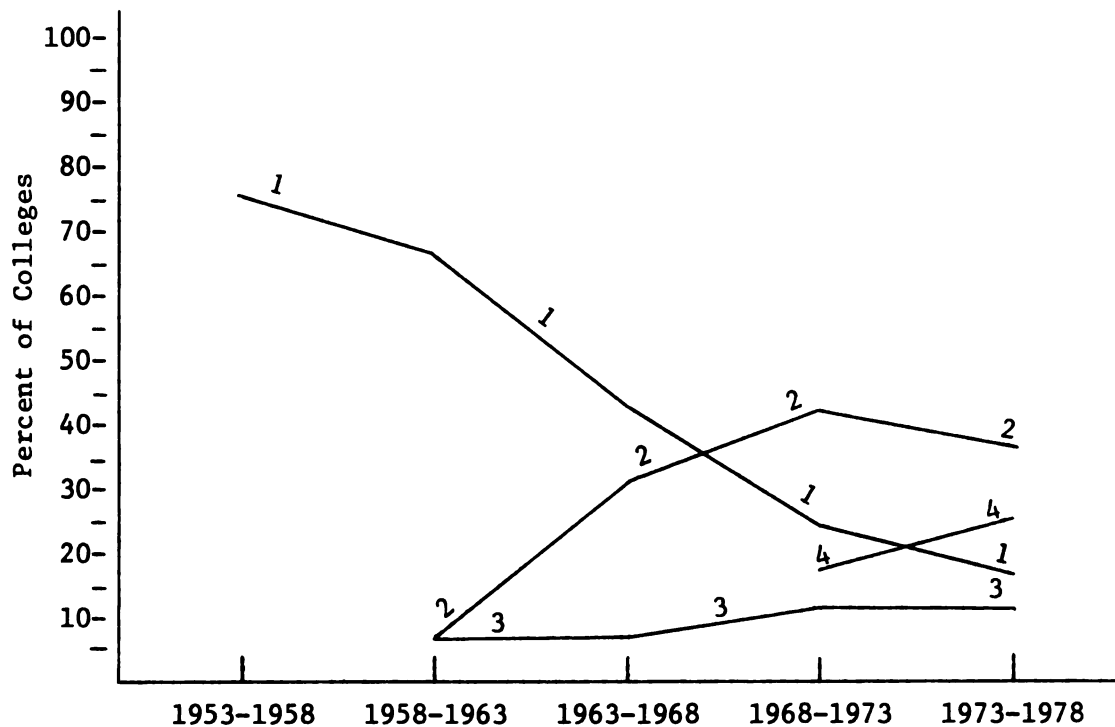
8. Year hour

9. Competence unit

**Number of catalogs included in these Block Intervals.

with negligible representation among colleges, and were eliminated during the last 10 years. Finally, the competence unit emerged during the last five years of this twenty-five year period with 6.3 percent of the colleges reporting its use.

Graph 4:4 displays the trends for the semester hour, unit, credit, and course measurements. The other quantitative measures are not included in the graph because their use was negligible during this twenty-five year period.



Quantitative Measures:

- 1 = Semester hour
- 2 = Unit
- 3 = Credit
- 4 = Course

GRAPH 4:4

Trends in Quantitative Measures: 1953-1978

8. What academic systems (e.g. semesters, quarters, etc.) were used in specifying degree requirements over a period of twenty-five years?

Over this twenty-five year period, four types of academic systems emerged: the semester system, quarter system, three-terms, and the 4-1-4 calendar. When a college shifted and/or adopted a new academic calendar in any given block interval, it did not provide a rationale for the change in its catalog.

The analysis of academic systems for the colleges included in the study revealed the following trends (Table 4:24 and Graph 4:5).

1. At the introduction of the twenty-five year period, 92.3 percent of the colleges specified the semester system, at the closure of this twenty-five year period, 56.3 percent of the colleges had retained the semester system, a decrease of about 36 percent. This reduction is reflected in the termination of this system and shifting and/or adopting other forms of academic calendars.

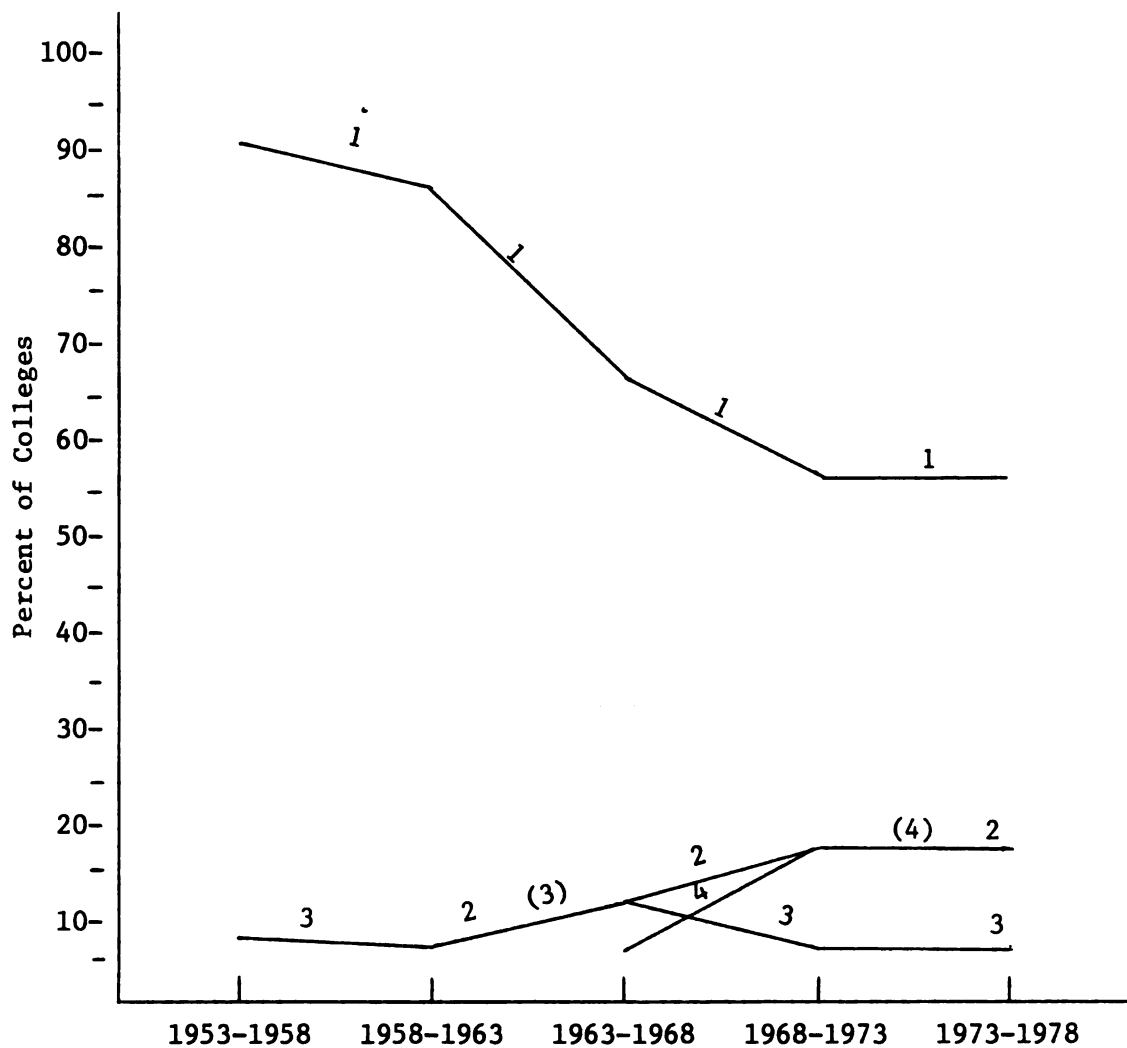
2. Colleges reporting three-terms, quarters, and 4-1-4 academic systems were few in number during each block interval, and closed out the twenty-five year period with 18.7 percent, 6.3 percent, and 18.7 percent respectively.

TABLE 4:24

Trends in the Academic Calendar: 1953-1978 (in percentages)										
C*	Block I		Block II		Block III		Block IV		Block V	
	1953-1958	%	1958-1963	%	1963-1968	%	1968-1973	%	1973-1978	%
	N		N		N		N		N	
1.	12	92.3	13	86.7	11	68.7	9	56.3	9	56.3
2.	-	-	1	6.7	2	12.5	3	18.7	3	18.7
3.	1	7.7	1	6.7	2	12.5	1	6.3	1	6.3
4.	-	-	-	-	1	6.3	3	18.7	3	18.7
T	13**	100.0	15**	100.1	16	100.0	16	100.0	16	100.0

*Calendar: 1. Semester system; 2. Three terms; 3. Quarter system;
4. 4-1-4 system

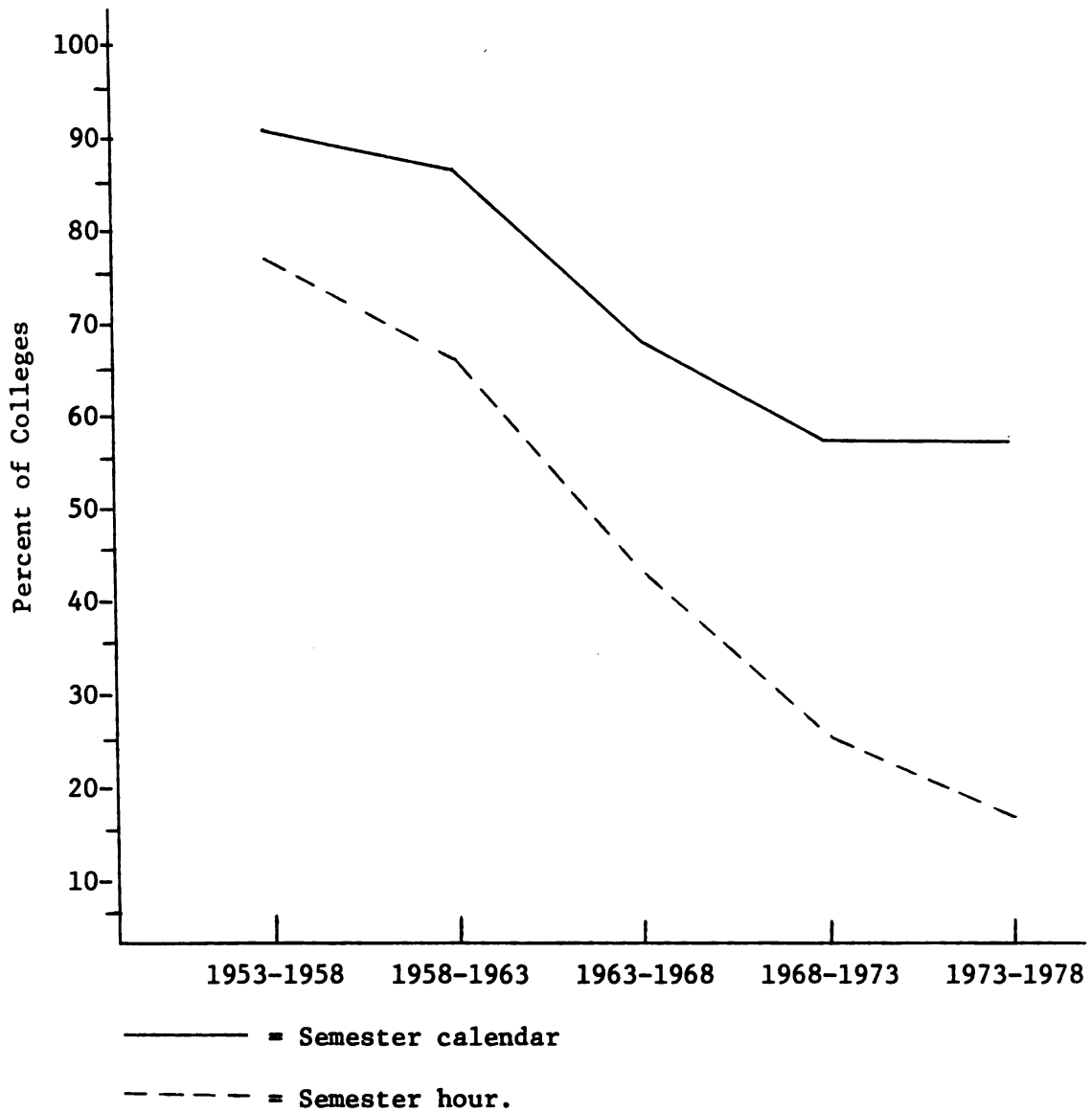
**Number of catalogs included in these Block Intervals.



GRAPH 4:5

Trends in Academic Calendars: 1953-1978

Comparing quantitative measurements and academic systems (Graphs 4:4 and 4:5) displayed in Graph 4:6 (page 135), 18.7 percent of the colleges retained the semester hour (Graph 4:4), while 56.3 percent reported the semester system. This trend suggests that while colleges were shifting and/or adopting new quantitative measures the majority of the colleges retained the semester calendar (Graph 4:6).



GRAPH 4:6

Comparison of Quantitative Measures and
Academic Calendar Trends: 1953-1978 (in percentages)

9. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

During this twenty-five year period there was a diversity of comprehensive examinations associated with the requirements for the baccalaureate degree among the colleges in the study. This requirement ranged from

departmental or senior departmental comprehensive examinations to senior thesis and comprehensive examinations for honor students. In addition, there were colleges that did not require a comprehensive examination of any kind. This no requirement among colleges was particularly noteworthy at the introduction of the twenty-five year period when approximately 62 percent of the colleges did not require a comprehensive examination of any kind as contrasted to approximately 38 that did. At the closure of the twenty-five year period this trend had an inverse relationship where approximately 69 percent of the colleges required one form of a comprehensive examination as compared to approximately 31 percent had retained no requirements, an increase of about 38 percent.

The noteworthy trend among the colleges included in the study was a shift toward one form of a comprehensive examination. However, this twenty-five year period revealed a considerable experimentation with various forms of comprehensives and suggests that comprehensives seldom fully accomplish the goals intended. Table 4:25 reveals the diversity of comprehensives that were used among the colleges over this twenty-five year period. This trend is graphically displayed in Graph 4:7 on page 138.

10. Was there a shift away from or toward specifications of prerequisite courses in general education, the major, and electives as part of the requirements for the baccalaureate degree?

The analysis of prerequisite courses in general education, the major, and electives with reference to a shift away from or toward baccalaureate degree requirements revealed the following characteristics:

TABLE 4:25

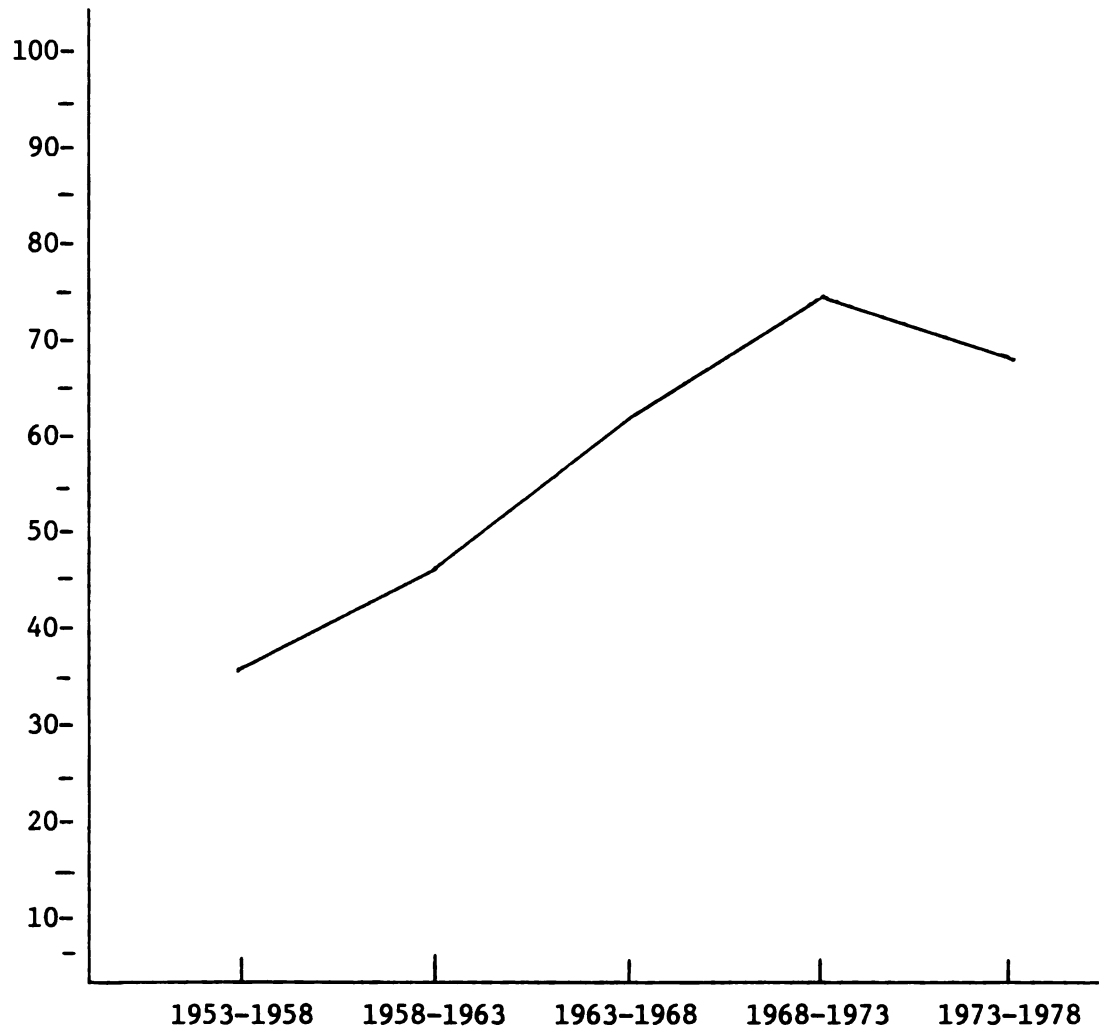
Comprehensive Examinations and Other Types of Requirements
Associated with the Baccalaureate Degree

T*	Block I		Block II		Block III		Block IV		Block V	
	1953-1958	%	1958-1963	%	1963-1968	%	1968-1973	%	1973-1978	%
	N		N		N		N		N	
1.	8	61.5	8	53.3	6	37.5	4	25.0	5	31.2
2.	3	23.1	5	33.3	7	43.7	7	43.7	7	43.7
3.	1	7.7	1	6.7	1	6.3	-	-	-	-
4.	-	-	-	-	-	-	1	6.3	1	6.3
5.	1	7.7	1	6.7	1	6.3	-	-	-	-
6.	-	-	-	-	-	-	1	6.3	1	6.3
7.	-	-	-	-	-	-	1	6.3	1	6.3
8.	-	-	-	-	1	6.3	-	-	-	-
9.	-	-	-	-	-	-	1	6.2	-	-
10.	-	-	-	-	-	-	1	6.2	1	6.3
T	13**	100.0	15**	100.0	16	100.1	16	100.0	16	100.1

*Type of Requirement:

1. None required
2. Departmental or senior departmental comprehensive examination
3. Junior qualifying examination and senior thesis
4. Senior thesis and comprehensive examination
5. Exceptional students taking comprehensive examination in history and/or English
6. Senior thesis only
7. Comprehensive examination optional or specified course work
8. Comprehensive examination in history only
9. Comprehensive examination in physical education only
10. Senior thesis and comprehensive examination for honor students.

**Number of catalogs included in these Block Intervals.



GRAPH 4:7

Trends in Comprehensive Examinations: 1953-1978

1. General Education:

A. Humanities: Course work above the freshman level, in some cases, specified prerequisite courses before pursuing an upper level course, or required adequate background in subject matter. Some expectations were provided by advanced placement, credit-by-examination and, on occasion a waiver by the professor.

B. Social Sciences: Course work above the freshman level required specific prerequisite courses, or required adequate background in subject matter before a student was allowed to pursue an upper level course. Exceptions were provided by advanced placement, credit-by-examination and, on occasion a waiver by the professor.

C. Natural Sciences: Science courses were more explicit in requiring prerequisite courses than the humanities and the social sciences. Many were specifically designated before students could pursue an upper level course. Some exceptions were provided by advanced placement and credit-by-examination.

2. The Major: Upon completion of the freshman and sophomore requirements, prerequisite courses in the major were courses specified as requirement in the major before taking advanced work, many of which were specifically designated.

3. Electives: Although electives are considered as those courses left over after a student completes the general education and major requirements, no noteworthy characteristics about them were discerned since the colleges did not make clear how electives were to be used, except they were offered as part of the total requirements for the baccalaureate degree.

Although no particular characteristics were noted about electives, courses in general education and the major either specified prerequisite

courses or required adequate background work before a student could pursue an upper level course. The noted trend among colleges in this study was a shift toward specification of prerequisite courses among general education and the major.

11. Was there a shift away from or toward accepting credits-by-examination as part of the baccalaureate degree requirements?

The analysis of colleges accepting credits-by-examination regarding a shift away from or toward baccalaureate degree requirements revealed the following characteristics:

1. Seven colleges, or 43.7 percent did not accept credits-by-examination of any type for the entire twenty-five year period.

2. Another seven colleges did not accept credits-by-examination during Block Intervals I, II, and III, but introduced credits-by-examination by offering College Level Examination Program (CLEP) credits during Block Intervals IV and V. During Block Interval V, one of these same colleges, in addition to CLEP, offered departmental examinations in which 32 hours could be applied toward graduation, 8 of which could be in the major.

3. The remaining two colleges, or 12.5 percent, accepted credits-by-examination under specified conditions for the entire twenty-five year period. One college encouraged students "to take proficiency examinations to earn credit for work not already pursued in the classroom; waiver graduation requirements or prerequisites for advanced courses and; to establish credit from a non-accredited institution." This same college introduced CLEP during Block Interval V. The other college provided "exemption by examination" when appropriate, in which either all colleges or area

requirements for the major may be absolved by course examination without course enrollment, at the discretion of the department concerned.

Although there were an appreciable number of colleges accepting CLEP credits during Block Intervals IV and V, this increase was not consistent in comparison to those colleges that did not accept credits-by-examination for the entire twenty-five year period. The trend appeared to be a shift away from colleges accepting credits-by-examination as part of the baccalaureate degree requirements.

Additional Research Questions

The remaining three research questions were included because (1) earlier researchers concerned with changing practices and contemporary trends did not address them, and (2) recent changes in the law and in the composition of student bodies and their adequacy of preparation had necessitated provisions to accommodate new student clientele.

12. Were remedial courses offered during the span of twenty-five years?
Was credit awarded? Were credits applicable toward the baccalaureate degree?

"The term remedial . . . implies improvement of student skills and knowledge for the purposes of entering a program for which the student was previously ineligible. Its emphasis is upon correcting weaknesses" (Levine, p. 55).

The majority of remedial courses offered among colleges in the study were associated with English composition, were offered for no credit, and were not applicable to the baccalaureate degree. The following observations were discerned over this twenty-five year period.

1. Determination of a student taking an English remedial course was assessed by examination and/or placement test upon entering, and on occasion by faculty recommendation.

2. Remedial courses were designed to improve writing skills.

3. Course titles such as "refresher course," "corrective English course," "English seminar," "English tutorial," "composition conditioned laboratory," and "English critical skills" were used among colleges for such courses.

4. Three colleges, or 18.7 percent did not offer a remedial course of any kind during the entire twenty-five year period.

5. One college, or 6.3 percent, offered a no credit remedial course in English composition for the entire twenty-five year period and was not applicable toward the baccalaureate degree.

6. The remaining colleges, or 75 percent revealed the following characteristics:

(a) Seven colleges, or 53.8 percent offered remedial courses during Block Interval I (1953-1958).

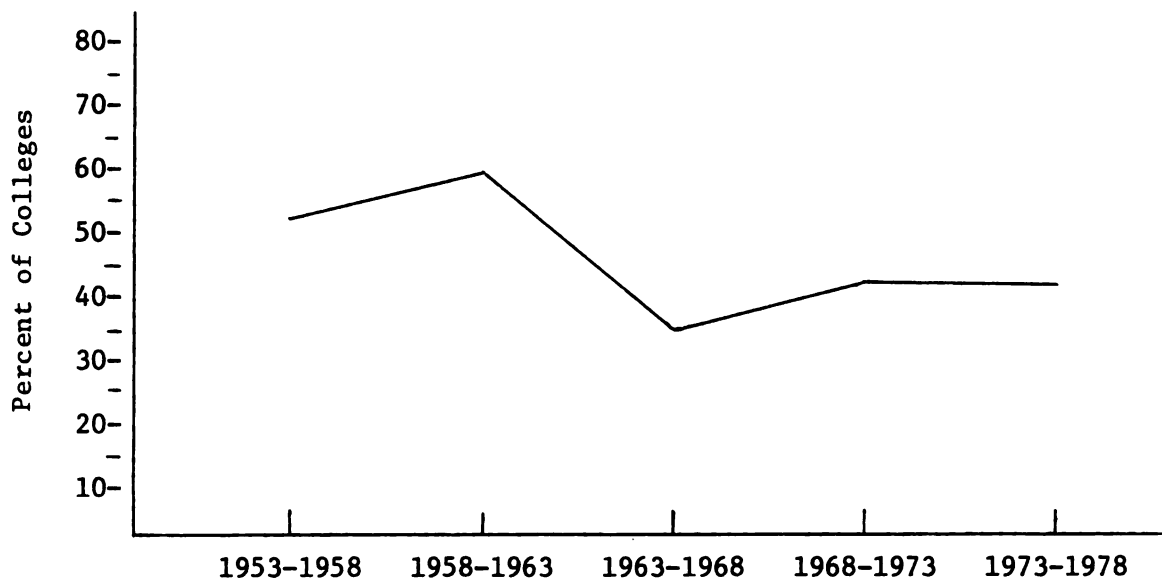
(b) Nine colleges, or 60 percent offered remedial courses during Block Interval II (1958-1963).

(c) Six colleges, or 37.5 percent offered remedial courses during Block Interval III (1963-1968).

(d) Seven colleges, or 44 percent offered remedial courses during Block Interval IV (1968-1973).

(3) Seven colleges, or 44 percent offered remedial courses during Block Interval V (1973-1978).

Graph 4:8 displays these changes during this twenty-five year period.



GRAPH 4:8

Trends in Remedial Course Offerings: 1953-1978 (in percentages)

13. Did institutions publish a Non-Discrimination Policy Statement over a period of twenty-five years?

In 1978, the U.S. Department of Health, Education, and Welfare, Education Division, in conjunction with the Federal Interagency Committee on Education, published a guide entitled Keeping Your School or College Catalog in Compliance with Federal Laws and Regulations, addressed to any education institution which receives federal funds, must publish a non-discrimination policy statement in catalogs, bulletins, and other educational material which are read by students, parents, and other constituencies. Such a policy statement reads

No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or be so treated on the basis of sex under most education programs or activities receiving Federal assistance (p. i.).

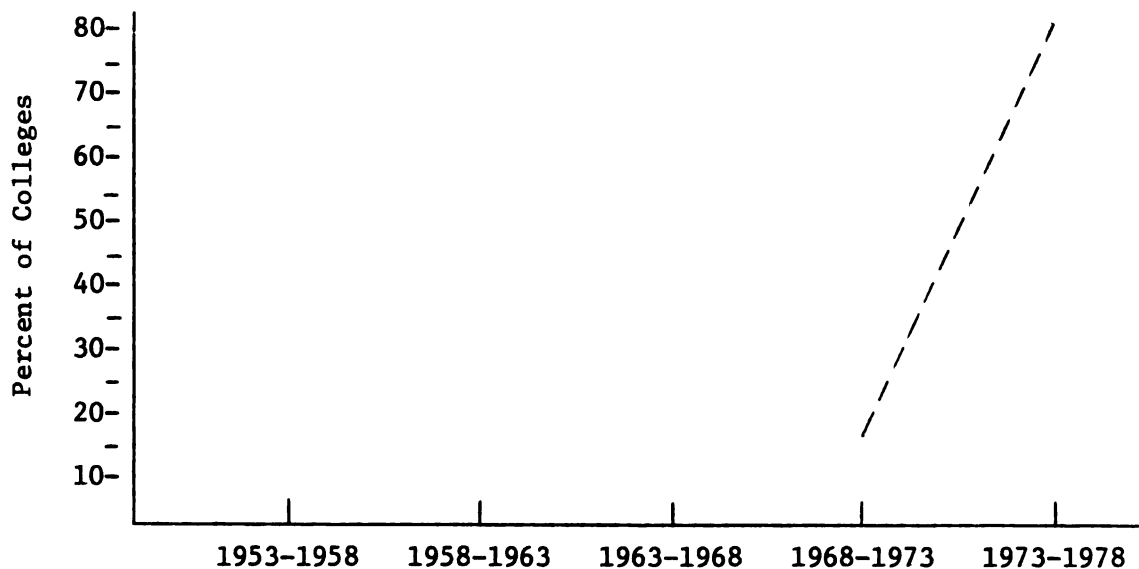
Although the guide was published in 1978, the following characteristics were noted over this twenty-five year period:

1. Three colleges, or 18.7 percent did not publish a non-discrimination policy statement for the entire twenty-five year period. It is possible that these institutions did not receive any Federal assistance during this period.

2. Three colleges, or 18.7 percent published their first non-discrimination policy statement during Block Interval IV: 1968-1973. These dates coincide with the time period when colleges were accepting U.S. Government support programs such as Special Services to Disadvantaged Students, established in 1968 (Levine, p. 57).

3. The remaining colleges published their first non-discrimination policy statement during the last five years of this twenty-five year period: Block Interval V: 1973-1978 (with the majority of them publishing such a statement in their 1976-1977 and/or 1977-1978 catalog).

Graph 4:9 displays these characteristics during this twenty-five year period.



GRAPH 4:9

Trends in Non-discrimination Policy Statements: 1953-1978 (in percentages)

14. Were minority courses offered during a period of twenty-five years?

"Minority studies are viewed as a method for giving cohesion to the larger minority community and a means of providing a curricular device to facilitate interaction between the on-campus and off-campus minority communities" (Mayhew, p. 141).

Over this twenty-five year period, the following characteristics between colleges were noted:

1. Two colleges, or 12.5 percent, did not offer a minority course of any kind during the entire twenty-five year period.

2. One college, or 6.3 percent, offered on minority course in sociology during the entire twenty-five year period.

The following characteristics across colleges during each block interval were noted:

1. Two colleges, or 15.3 percent offered a black (Negro) course in sociology during Block Interval I (1953-1958) for credit.

2. Five colleges, or 33.3 percent, offered five black courses during Block Interval II: 1958-1963 (three in sociology, and two in sociology-anthropology, cross-listed) for credit.

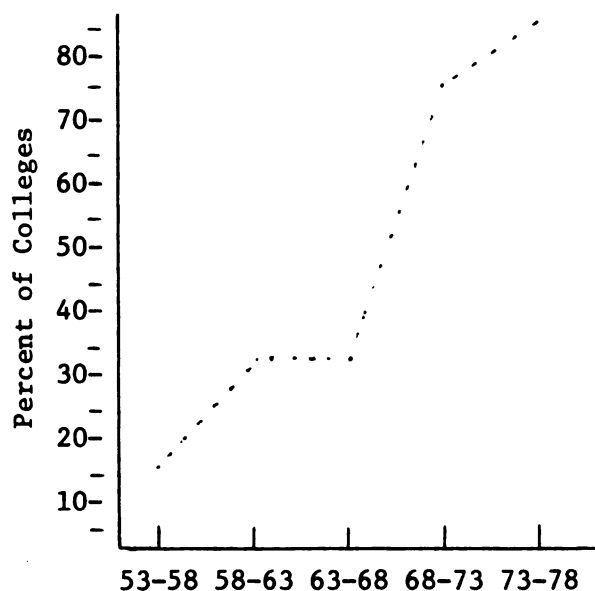
3. Another five colleges, or 33.3 percent, offered five black minority courses in sociology and sociology-anthropology (cross-listed) during Block Interval III (1963-68) for credit.

4. Twelve colleges, or 75 percent, offered minority courses in history, sociology, history-sociology (cross-listed), and political science. One college offered a bilingual minor, and an interdisciplinary major in black studies.

5. The remaining colleges, or 87.5 percent, offered minority courses in either black, Chicano, Native American, and women's topics. Among these colleges, one offered a bilingual-bicultural teacher certification,

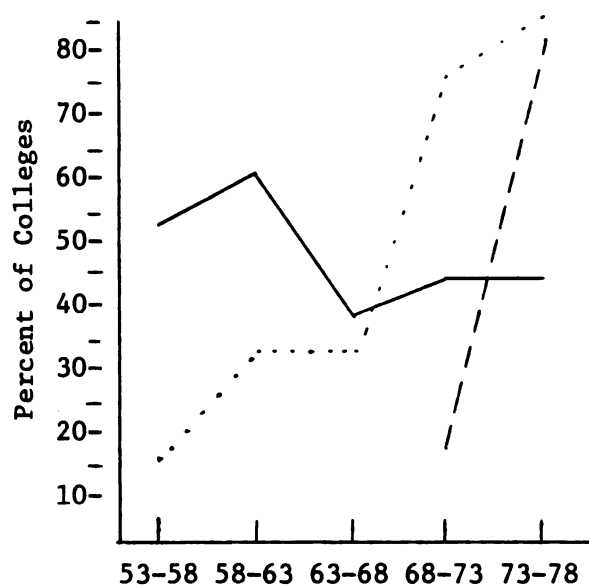
another offered a black studies major, and another offered an interdisciplinary major in black and Chicano courses.

Graph 4:10 displays these trends during this twenty-five year period. Graph 4:11 is a composite of these three trends during this same period.



GRAPH 4:10

Trends in Minority Courses:
1953-78 (in percentages)



GRAPH 4:11

Composite of These Three Trends:
1953-78 (in percentages)

An examination of these three trends, particularly during Block Interval IV: 1963-1968, coincide with the mid-1960s when colleges became more interested in recruiting low academic-ability students. "Remedial efforts of the period included intensive . . . English courses . . . and U.S. Government supported programs such as Upward Bound, created in 1965, and Special Services to Disadvantaged Students, established in 1968 . . ." (Levine, p. 57).

The emergence of minority courses during the 1960s, especially in the latter years and continuing, were ". . . attempts to use the curriculum to meet the needs of . . . racial and ethnic minorities of black, Chicanos,

Native Americans, and Puerto Ricans. The early 1970s and continuing, women's courses appeared in the curriculum" (Mayhew, 1977, pp. 138-43).

The appearance of non-discrimination policy statements in catalogs by the colleges included in the study emerged during Block Interval IV: 1963-1968, a period when the 1964 Civil Rights Laws were adopted. Presumably this increase in the number of colleges publishing a non-discrimination policy statement were institutions receiving Federal assistance through education programs such as Upward Bound and Special Programs for the Disadvantaged.

Summary

A presentation and analysis of the data appeared in this chapter. This summary is comprised of fourteen research questions (eleven of which conform primarily, but not exclusively, to research questions asked of earlier researchers; Dressel & DeLisle 1969, and Blackburn and associates 1976; and three were included because they were not addressed by these earlier researchers) on the changing practices and contemporary trends of the undergraduate curriculum in sixteen private liberal arts colleges spanning over a period of twenty-five years: 1953-1978, based on the contents of published catalogs.

Colleges catalog representation for each year during this twenty-five year period was not available, rather the catalogs ranged from 1953 through 1978 in staggered single years, and on occasion, two-year catalogs were presented. Because of this arrangement, colleges and their catalogs were organized into five, five-year block intervals. For each block interval, one catalog was selected to represent a five-year

block interval. The block intervals were Block I: 1953-1958, Block II: 1958-1963, Block III: 1963-1968, Block IV: 1968-1973, and Block V: 1973-1978.

Research Questions

1. How had the number of hours required for the baccalaureate degree changed over a period of twenty-five years?

For the sixteen colleges in the study, the average number of semester hours required for the baccalaureate degree increased from 120 to 128 between Block I: 1953-1958 and Block V: 1973-1978. Table 4:12 (page 116) revealed these changes for each college: one college decreased semester requirements, six increased them, six kept them the same, and three were excluded in the change. The largest increase was Mars Hill College (when it a two-year college) from 68 to 140. Next was Alma College from 120 to 136. Table 4:13 (page 117) displayed these changes between and within colleges included in the study.

2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?

One overall finding of this study was that the relative weight of each of these areas--general education, the major, and electives--had changed over this twenty-five year period. While the general education component had diminished considerably, the major component remained relatively stable, thus the net effect had been an increase in the elective component of the student's undergraduate education. The elective component had increased from 26.5 percent in Block I: 1953-1958

to 35 percent in Block V: 1973-1978. Table 4:14 presented below reveals these changes. The trend toward fewer general education requirements and an increase in student freedom through electives was evidenced across all colleges in Table 4:15 (page 119).

TABLE 4:14

Proportions of Undergraduate Education Spent in General Education,
The Major, and Electives (in percentages)
Between Block Intervals I: 1953-1958 and V: 1973-1978

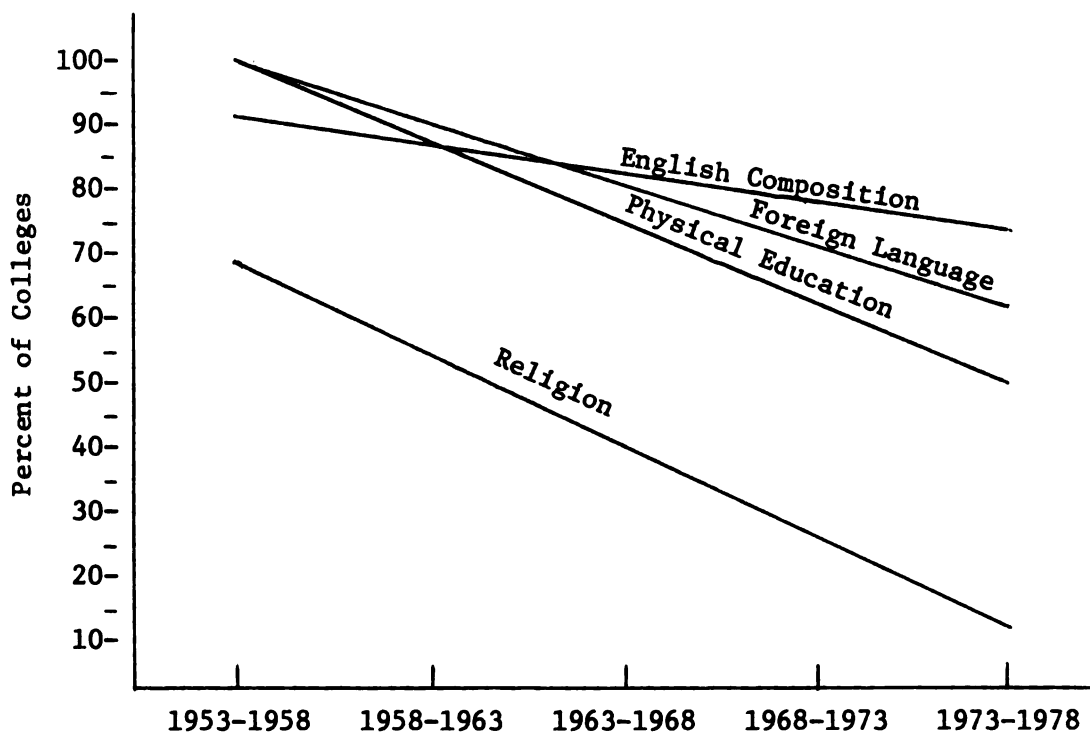
	Block I: 1953-1958	Block V: 1973-1978
General education requirements (mean)	54.1	42.1
Major requirements (mean)	19.4	23.0
Available electives (mean)	26.5	35.0

3. How had the number of courses and majors offered for the baccalaureate degree changed over a period of twenty-five years?

For the sixteen colleges included in the study, the average number of courses offered over this twenty-five year period increased from 351 to 574 between Block I: 1953-1958 and Block V: 1973-1978. The average number of majors offered over this period increased from 21 to 25 between these same block intervals. Table 4:16 (page 120) revealed these changes, and Table 4:17 (page 121) revealed these changes between and across all institutions.

4. How had the requirements in English composition, foreign language, physical education, and religion changed over a period of twenty-five years?

Another overall finding of this study was that four components of the curriculum germane to this study--English composition, foreign language, physical education, and religion--had changed over a period of twenty-five years. Fewer colleges required these subjects in Block V: 1973-1978 than did in Block I: 1953-1958: 92 percent in 1953-1958 and 75 percent in 1973-1978 required English composition; 100 percent and 50 percent required foreign language; 100 percent and 63 percent required physical education; and 69 percent and approximately 13 percent required religion. Tables 4:18, 19, 20, and 21 (pages 123 and 124) revealed these changes. Graph 4:2 (reproduced below) is a composite of these changed over this twenty-five year period.



GRAPH 4:2

Composite Trends in English Composition, Foreign Language,
Physical Education, and Religion

5. Was there a shift away from or toward English proficiency testing as part of the requirements for the baccalaureate degree?

Over this twenty-five year period there was a shift away from English proficiency testing toward English composition courses. Thirteen colleges in Block I: 1953-1958 ($n = 13$) or 100 percent to 18.7 percent in Block V: 1973-1978.

6. What changes in curricular structural arrangements were evident between and across institutions over a period of twenty-five years?

Albeit, there were a variety of curricular structural arrangements over this twenty-five year period, they usually fell under the rubric of humanities, social sciences, and the natural sciences (some colleges linked mathematics with the natural sciences).

When a college adopted a new arrangement in any given block interval, its catalog did not provide a rationale for the change. Institutional rationales for adopting new curricular structural arrangements were not provided in the catalogs.

Analysis Between Colleges:

At the introduction of the twenty-five year period, approximately 30 percent of the colleges specified the department; approximately 30 percent specified the department within a division; another 30 percent specified the division; and about 8 percent specified the department of instruction. Whereas no college specified the department within groups or departments within categories.

During each succeeding five-year block interval, there was a shifting from one curricular structural arrangement to another, and at the end

of the twenty-five year period, approximately 18 percent of the colleges had retained the department; approximately 37 percent had retained the department within a division; 25 percent retained the division; and approximately 13 percent adopted the department within groups. The department of instruction was phased out during Block Interval III: 1963-1968, whereas the department within categories emerged during Block Interval IV: 1968-1973 with approximately 6 percent specifying this arrangement and continued this specification at the end of the twenty-five year period.

Analysis Across Colleges:

1. Three colleges, or 18.7 percent had retained the department.
2. One college, or 6.3 percent had retained the departments within divisions.
3. Four colleges, or 25 percent had retained the division.
4. Colleges specifying department within groups, department of instruction, and departments within categories were not consistent during each block interval nor were any continuous for the entire twenty-five year period.
7. What quantitative measures (e.g., credits, semester hour, quarter-hour, term, unit, course, etc.) were used in specifying degree requirements between and across institutions?

Analysis Between Colleges:

The semester hour was the most consistent quantitative measurement specified between colleges over the twenty-five year period. Although it declined gradually during each succeeding block interval, it remained the most used.

Analysis Across Colleges:

1. Four types of quantitative measures (the semester hour unit, credit, and course) were specified by the majority of the colleges at the closure of the twenty-five year period.

- A. The semester hour was specified by 18.7 percent of the colleges.
- B. The unit was specified by 37.5 percent of the colleges.
- C. The credit was specified by 12.5 percent of the colleges.
- D. The course was specified by 25 percent of the colleges.

2. Colleges specifying the quarter-hour, term-course, year-course, and year-hour all emerged during the first 15 years with negligible representation and were eliminated during the last 10 years.

3. The competence-unit was not specified by any college during the first 20 years of the twenty-five year period, but closed out with 6.3 percent of the colleges reporting its use.

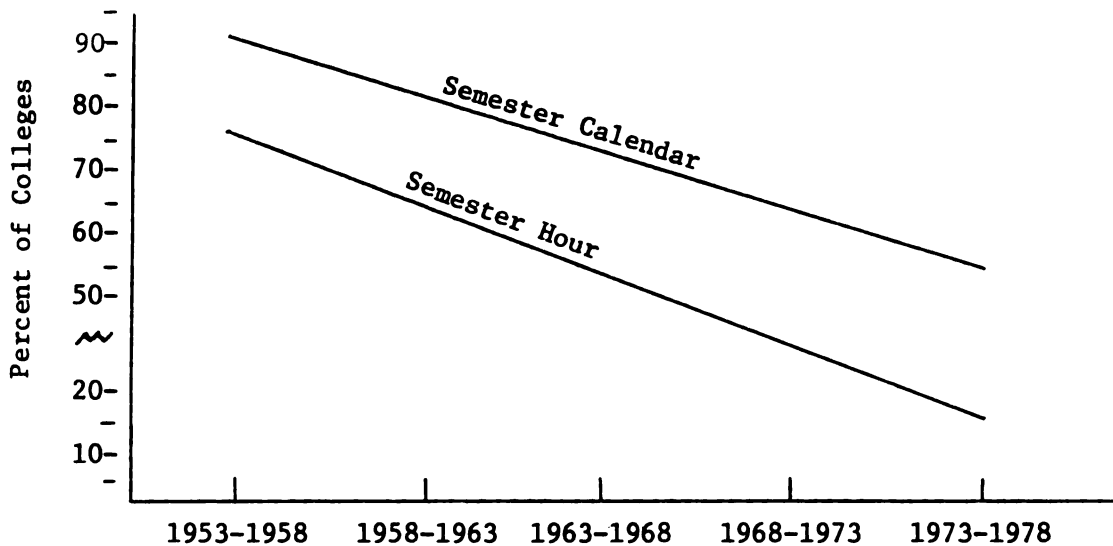
8. What academic systems (e.g. semesters, quarters, etc.) were used in specifying degree requirements over a period of twenty-five years?

At the closure of the twenty-five year period, four types of academic systems (calendars) emerged: the semester system, quarter system, three-terms, and the 4-1-4 system.

- 1. Nine colleges, or 56.3 percent specified the semester system.
- 2. Three colleges, or 18.7 percent specified the three-terms system.
- 3. One college, or 6.3 percent specified the quarter system.
- 4. Three colleges, or 18.7 percent specified the 4-1-4 system.

Comparing quantitative measurements and academic systems at the closure of this twenty-five year period, for the semester hour and semester calendar, 18.7 percent of the colleges had retained the semester hour, while 56.3

percent specified the semester calendar. These trends are revealed below (from Graph 4:6, page 135).



GRAPH 4:6

Comparison of Quantitative Measures and Academic Calendar Trends

9. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

The trend among the colleges included in the study was a shift toward one form of a comprehensive examination or another. At the closure of the twenty-five year period 69 percent of the colleges required one form of a comprehensive examination; at the introduction of this same period, 39 percent required one form of a comprehensive examination, an increase of about 30 percent.

10. Was there a shift away from or toward specifications of prerequisite courses in general education, the major, and electives as part of the requirements for the baccalaureate degree?

Although no particular trends were discerned about electives (those courses left over after a student completes the general education and

major requirements; the colleges and their catalogs did not specify how electives were to be used, except they were offered as part of the total requirements for the baccalaureate degree), courses in general education and the major either specified prerequisite courses or required adequate background work before a student could pursue an upper level course. The trend was a shift toward specification of prerequisite courses among general education and the major.

11. Was there a shift away from or toward accepting credits-by-examination as part of the baccalaureate degree requirements?

1. Seven colleges, or 43.7 percent did not accept credits-by-examination of any type during the entire twenty-five year period.

2. Another 43.7 percent did not accept credits-by-examination during the first 15 years but introduced credits-by-examination by offering College Level Examination Program (CLEP) credits during the last ten years of the twenty-five year period.

3. The remaining two colleges, or 12.5 percent, accepted under specified conditions, credits-by-examination for the entire twenty-five year period. One of these same colleges introduced CLEP during Block Interval V: 1973-1978.

Although there were an appreciable number of colleges accepting CLEP credits during the last 10 years of the twenty-five year period, this increase was not consistent in comparison to those colleges which did not accept credits-by-examination during the entire twenty-five year period. The trend appeared to be a shift away from colleges accepting credits-by-examination as part of the baccalaureate degree requirements.

Additional Research Questions

12. Were remedial courses offered during the span of twenty-five years?
Was credit awarded? Were credits applicable toward the baccalaureate degree?

The majority of remedial courses offered among colleges in the study were associated with English composition, were offered for no credit, and were not applicable toward the baccalaureate degree.

Generally, determination of a student taking an English remedial course was by an examination and/or placement test upon entering, and on occasion by faculty recommendation. Finally, remedial courses were designed to improve writing skills.

Analysis Between Colleges:

1. One college, or 6.3 percent offered a remedial course in English composition for the entire twenty-five year period for no credit and was not applicable toward the baccalaureate degree.
2. Three colleges, or 18.7 percent did not offer a remedial course of any kind for the entire twenty-five year period.

Analysis Across Colleges: The offering of remedial courses decreased from 53.8 percent to 44 percent between Block I: 1953-1958 and Block V: 1973-1978. Graph 4:8 (reproduced below) displays this change over this twenty-five year period.



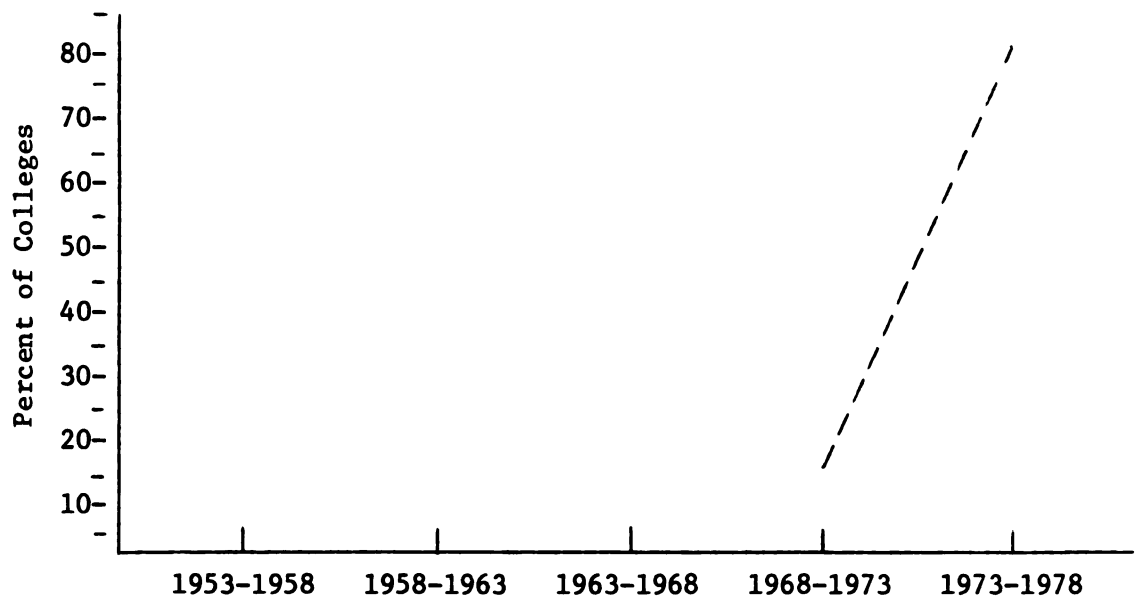
GRAPH 4:8
Trends in Remedial Courses

13. Did institutions publish a Non-discrimination Policy Statement over a period of twenty-five years?

Analysis Across Colleges:

1. Three colleges, or 18.7 percent did not publish a non-discrimination policy statement for the entire twenty-five year period.
2. Three colleges, or 18.7 percent published their first non-discrimination policy statement during Block IV: 1968-1973.
3. The remaining colleges published their first non-discrimination policy statement during the last five years of this twenty-five year period: Block V: 1973-1978.

Graph 4:9 (reproduced below) displays this trend over this twenty-five year period.



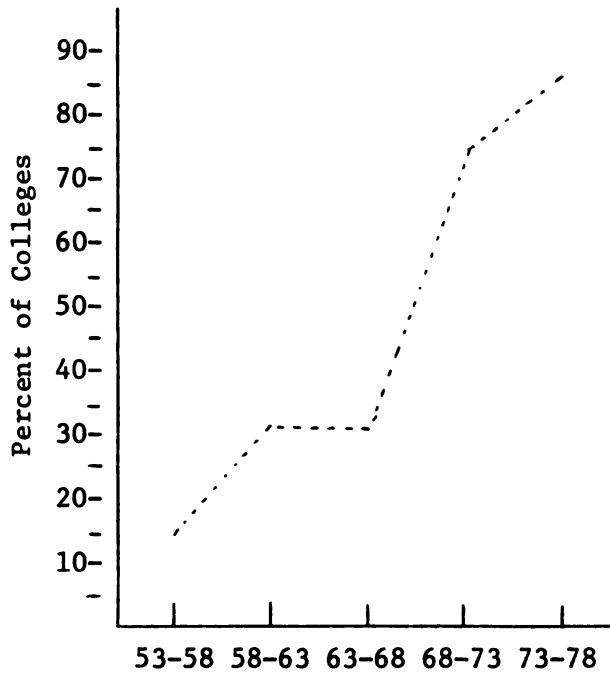
GRAPH 4:9

Non-Discrimination Policy Statements

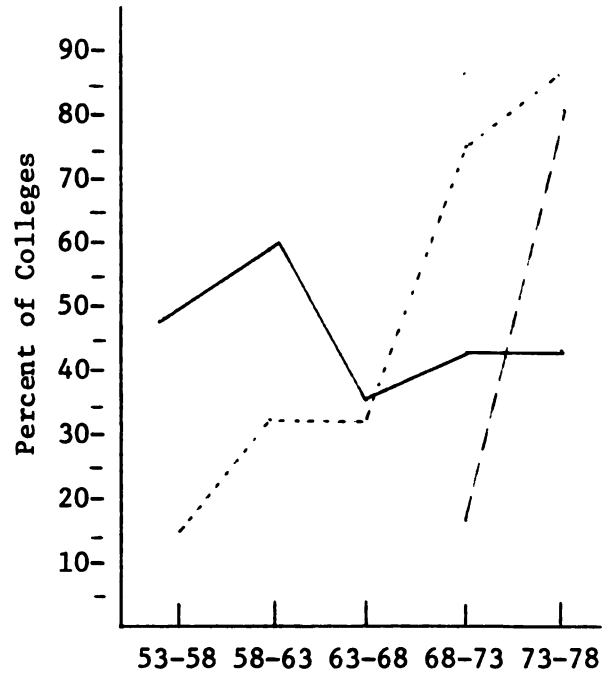
14. Were minority courses offered during a period of twenty-five years?

Analysis Across Colleges: The offering of minority courses increased from 15.3 percent to 87.5 percent between Block I: 1953-1958

and Block V: 1973-1978. Graph 4:10 (reproduced below) displays this change over this twenty-five year period. Graph 4:11 (reproduced below) displays these three trends over this same twenty-five year period.



GRAPH 4:10
Minority Courses



GRAPH 4:11
Composite

CHAPTER V

THE PROBLEM, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The Problem

Contemporary literature on undergraduate curriculum trends and practices based on the contents of published college catalogs over a specific length of time is infrequent despite the fact that the college catalogs is the official record of the college, and a public statement of the institution's goals and philosophy.

The paucity of contemporary literature suggests a need for curriculum planners and/or developers to periodically analyze and review their catalogs through whatever means are available to them. This review would be beneficial even if one college or an amalgamation of similar colleges conduct catalog research. Such efforts will provide a historical description and reveal curriculum changes that emerged in their undergraduate curricular requirements for the baccalaureate degree over any specific length of time, as documented by the content of their published catalogs. Such information is invaluable in assisting in the development of policies regarding degree requirements.

In liberal arts colleges, such as those included in this study, there are certain features of progress that take years if not decades to evolve, and can, over the span of twenty-five years, become lost, confused, or forgotten, simply because of the unavailability of historical catalog research. For example, "How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period twenty-five years?" "What changes in specific curriculum

requirements in English composition, foreign language, physical education, and religion were evident over the same period of time?" In addition, "Were remedial courses offered during any portion of this period?" "Was a non-discrimination policy statement published in the catalogs?" "Were minority courses offered?"

Providing historical information in response to these questions can be of assistance to those persons who are developing an interest in the curriculum possibly for the first time; the new trustee, the faculty member's initial appointment to a committee on the curriculum, the new academic administrator, and the recently elected student leader. The individual with substantial experience with the curriculum, however, may also find in such a study, information that would not otherwise come to his or her attention.

The purpose of the study, therefore, was to determine if the undergraduate curriculum requirements for the baccalaureate degree in sixteen private liberal arts colleges changed over a period of twenty-five years: 1953-1978, based on the contents of their published catalogs. A secondary purpose was to document the range and frequency of curricular trends and practices in these same colleges over this same period. An additional purpose was to determine if these same colleges offered remedial courses, published non-discrimination policy statements, and offered minority courses during this same period: 1953-1978.

The following eleven research questions served as a means in determining if the undergraduate curriculum requirements for the baccalaureate degree changed over a period of twenty-five years. These research questions also served as a guide to document the range and frequency of curriculum

trends and practices. Three additional research questions were included to determine if these sixteen private liberal arts colleges offered remedial courses published a non-discrimination policy statement, and offered minority courses.

1. How had the number of hours required for the baccalaureate degree changed over a period of twenty-five years?

2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?

3. How had the number of courses and majors offered for the baccalaureate degree changed over a period of twenty-five years?

4. How had the requirements for English composition, foreign language, physical education, and religion changed over a period of twenty-five years?

5. Was there a shift away from or toward English proficiency testing as part of the requirements for the baccalaureate degree?

6. What changes in curricular structural arrangements were evident between and across institutions over a period of twenty-five years?

7. What quantitative measures (e.g. credits, semester hours, quarter-hour, term, unit, course, etc.) were used in specifying degree requirements within and across institutions?

8. What academic systems (e.g. semesters, quarters, etc.) were used in specifying degree requirements over a period of twenty-five years?

9. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

10. Was there a shift away from or toward specifications of prerequisite courses in general education, the major, and electives as part of the requirements for the baccalaureate degree?

11. Was there a shift away from or toward accepting credits-by-examination as part of the baccalaureate degree requirements?

Additional Research Questions

12. Were remedial courses offered during the span of twenty-five years? Was credit awarded? Were credits applicable toward the baccalaureate degree?

13. Did institutions publish a Non-Discrimination Policy Statement over a period of twenty-five years?

14. Were minority courses offered over a period of twenty-five years?

Methodology of the Study

The sample of this study was a select group of sixteen private liberal arts colleges and their catalogs spanning a period of twenty-five years: 1953-1978. The sample does not represent any particular size, control or geographic location.

College catalog representation for each year during this twenty-five year period was not available, rather the catalogs ranged from 1953 through 1978 in staggered single years, and on occasion, two-year catalogs were represented. Because of this arrangement, colleges and their catalogs were organized into five, five-year block intervals. For each block interval, one catalog of each college was selected to represent a five-year block interval. The block intervals were: Block I: 1953-1958 Block II: 1958-1963, Block III: 1963-1968, Block IV: 1968-1973, and Block

V: 1973-1978. The total number of catalogs available for this study was 76 out 80, five catalogs per college per block interval (except in Block Interval I where $n = 13$ and Block Interval II where $n = 15$).

Two methodological approaches were followed: First, a longitudinal approach was used to examine and identify the changes in the undergraduate curriculum across institutions for each block interval and over the entire twenty-five year period: 1953-1978. Second, a cross-sectional approach was used to examine and identify the changes in the undergraduate curriculum between institutions over this same twenty-five year period.

Longitudinal Approach: For each college and its catalog in each five-year block interval, tabulations were arranged and recorded to each research question asked in the study. For example, how many semester hours were required for the baccalaureate degree? Thus, catalog documentation was recorded across each college for each five-year block interval over a period of twenty-five years: 1953-1978. Dressel and DeLisle (1969) used a similar approach when they recorded undergraduate trends of 322 institutions between 1957-1967 where each institution was asked to provide a current catalog (1967) and one of ten years previous (1957). Blackburn and associates (1976) also used this similar approach with 271 institutions between 1967-1974.

Cross-sectional Approach: For each college and its catalog in each five-year block interval, tabulations were arranged and recorded according to each research question asked in the study. For example, how did institutions differ in the number of semester hours required for the baccalaureate degree? Thus, catalog documentation was recorded between each college during each five-year block interval, and subsequently for

for the entire twenty-five year period: 1953-1978. This approach was not found previously used in the investigator's search of the literature pertinent to this study.

The data were tabulated by means of table formats, graphs, and descriptive statistics (percentages). Narrative statements were provided to describe other changes and/or trends in the curriculum.

Summary of Findings

The summarized results for the fourteen research questions asked in the study are presented in the following pages, and where appropriate, citations of previous research are presented that are in agreement with the research questions asked in the study.

1. How had the number of hours required for the baccalaureate degree changed over a period of twenty-five years?

For the sixteen colleges included in the study, the average number of semester hours required for the baccalaureate degree increased from 120 to 128 between Block Interval I: 1953-1958 and Block Interval V: 1973-1978.

This area of the undergraduate curriculum and the average number of semester hours required for the baccalaureate degree was also reported in Blackburn and associates' study (1976) where they found the average number of semester hours required for the baccalaureate degree decreased from 125 to 123 between 1967 and 1974. Aggregating the data on the average number of semester hours required for the baccalaureate degree for private liberal arts colleges from their study, the average also decreased from 123 to 122.5 between 1967 and 1974.

2. How had the requirements for the baccalaureate degree in general education, the major, and electives changed over a period of twenty-five years?

One overall finding of this study is that the relative weight of each of these areas--general education, the major, and electives--had changed over this twenty-five year period. The general education component diminished considerably from 54.1 percent to 42.0 percent between Block Interval I: 1953-1958 and Block Interval V: 1973-1978, while the major component remained relatively stable from 19.4 percent to 23.0 percent between 1953-1958 and 1973-1978. The net effect was an increase in the elective component from 26.5 percent in Block Interval I: 1953-1958 to 35 percent in Block Interval V: 1973-1978. This trend toward fewer general education requirements and an increase in student freedom of choice through electives was evidenced across all five, five-year block intervals.

The proportions of undergraduate education spent in general education, the major, and electives was also reported in Blackburn and associates study (1976) where they found the general education requirements (mean) decreased from 43.1 percent in 1967 to 33.5 percent in 1974, while the major requirements (range) remained relatively stable, 26.7-40.1 percent in 1967 and 25.2-41.0 percent in 1974. The percent of electives (range) increased from 16.8-30.2 in 1967 to 25.5-41.3 in 1974. The net effect was an increase in the elective segment of the student's total educational experience.

Dressel and DeLisle (1969) reported that general education requirements fell between 31 and 40 percent of the total requirements for

graduation. The majority of the colleges and universities had total requirements ranging from 21 percent to 50 percent. In 1967, 89 percent of the colleges were found at those ranges, as compared to 82 percent in 1957. The median, however, was essentially 37 percent for both periods. About 39 percent of the institutions in 1967 required 24 to 32 credits for a major, as compared to 45 percent in 1957, a decrease of about 6 percent. The median was 31 percent of the total of the total requirements for graduation. No comparative data between 1957 and 1967 was available for the percent of electives available after the general education and major requirements were fulfilled, except that the number of institutions allowing electives suggested an increase in the practice of providing more opportunities for students to make choices for themselves. However, in 1967 more than one-half of the institutions clustered at 21 to 30 percent or 31 to 40 percent of the total requirements. The median fell at 29 percent. A profile of general education, the major, and electives for 1967 (medians) was: 39 percent for general education, 31 percent for major requirements, and 29 percent for electives.

3. How had the number of courses and majors offered for the baccalaureate degree changed over a period of twenty-five years?

The average number of courses offered increased from 351 to 574 between Block Interval I: 1953-1958 and Block Interval V: 1973-1978. The average number of majors offered also increased from 21 to 25 between these same block intervals.

4. How had the requirements in English composition, foreign language, physical education, and religion changed over a period of twenty-five years?

The finding of this study was that four subjects considered essential to a liberal arts education--English composition, foreign language, physical education, and religion--had changed over a period of twenty-five years. Fewer colleges required these subjects in Block Interval V: 1973-1978 than did in Block Interval I: 1953-1958--92 percent in 1953-1958 and 75 percent in 1973-1978 required some form of English composition; and the percentage of colleges requiring one-year of English composition also decreased from 77 percent to approximately 13 percent. One hundred percent and 50 percent required some form of foreign language; and the percentage of colleges requiring two years of foreign language also decreased from 39 percent to about 13 percent. One hundred percent and 63 percent required some form of physical education; and the percentage of colleges requiring 3-6 hours (one year) also decreased from 46 percent to about 19 percent. Sixty-nine percent and approximately 13 percent required religion between 1953-1958 and 1973-1978.

Catalog studies by Dressel & DeLisle (1969) and Blackburn et. al. (1976) reported on the trends of these subjects (Blackburn et. al. did not report on religion) and found fewer colleges required English composition and physical education. Foreign language requirements increased in the Dressel & DeLisle study and increased in the Blackburn et. al. study. More specifically, Dressel & DeLisle reported that colleges requiring one-year of English composition decreased from about 60 percent in 1957 to about 46 percent in 1967. Blackburn et. al. also reported a decrease in English composition from 90 percent in 1967 to 72 percent in 1974.

Two year foreign language requirements in the Dressel & DeLisle study (bachelor of arts) increased from about 58 percent in 1957 to about 64 percent in 1967. Whereas Blackburn et. al. reported a decrease in two-year foreign language requirements from 72 percent in 1967 to 45 percent in 1974. Aggregating the data for private liberal arts colleges from Blackburn et. al., two-year foreign language requirements also decreased from 49 percent in 1967 to 43 percent in 1974.

Physical education requirements (two years required) in Dressel & DeLisle study decreased from 68 percent in 1957 to about 62 percent in 1967. Blackburn et. al., reported physical education requirements (one college-level course) decreased from 78 percent to 55 percent between 1967 and 1974. Aggregating the data for private liberal arts colleges from Blackburn et. al., 47 percent in 1967 required one college-level course as compared to 33 percent in 1974.

Religion requirements in the Dressel & DeLisle study revealed that 22 percent of the institutions in their sample required two years or more of religion courses in 1957 as compared to 18 percent in 1967. Similarly, approximately 15 percent of their sample required one year of religion courses in 1957, while 13 percent did so in 1967.

5. Was there a shift away from or toward English proficiency testing as part of the requirements for the baccalaureate degree?

Between 1953-1958 and 1973-1978, approximately 81 percent of the colleges shifted away from English proficiency testing toward requiring English composition.

6. What changes in curricular structural arrangements were evident between and across institutions over a period of twenty-five years?

Analysis Between Colleges:

At the introduction of the twenty-five year period, approximately 30 percent of the colleges specified the department; approximately 30 percent specified the department within a division; another 30 percent specified the division; and about 8 percent specified the department of instruction. Whereas no college specified the department within groups or departments within categories.

During each succeeding five-year block interval, there was a shift from one curricular structural arrangement to another, and at the end of the twenty-five year period approximately 18 percent of the colleges had retained the department; approximately 37 percent had retained the department within a division; 25 percent had retained the division; and approximately 13 percent adopted the department within groups. The department of instruction was phased out during Block Interval III: 1963-1968, whereas the department within categories emerged during Block Interval IV: 1968-1973 with approximately 6 percent of the colleges specified this arrangement and continued this specification through the end of the twenty-five year period.

Analysis Across Colleges:

1. Three colleges, or 18.7 percent had retained the department.
2. One college, or 6.3 percent had retained the departments within divisions.
3. Four colleges, or 25 percent had retained the division.
4. Colleges specifying department within groups, departments of instruction, and departments within categories were not consistent during each block interval nor were any continuous for the entire twenty-five year period.

7. What quantitative measures (e.g. credits, semester hour, quarter-hour, term, unit, course, etc.) were used in specifying degree requirements between and across institutions?

Analysis Between Colleges:

The semester hour was the most consistent quantitative measurement specified between colleges over the twenty-five year period. Although it declined gradually during each succeeding block intervals, it remained the most used. Other forms of quantitative measurements were the unit and course.

Analysis Across Colleges:

1. Four types of quantitative measures (the semester hour, unit, credit, and course) were specified by the majority of the colleges at the closure of the twenty-five year period.

- A. 18.7 percent of the colleges specified the semester hour.
- B. 37.5 percent of the colleges specified the unit.
- C. 12.5 percent of the colleges specified the credit.
- D. 25 percent of the colleges specified the course.

2. Colleges specifying the quarter-hour, term-course, year-course, and year-hour were represented during the first 15 years of the 25 year period with negligible representation but these measurements were eliminated during the last 10 years of this twenty-five year period.

3. The competence-unit was not specified by any college during the first 20 years, but during the remaining 5 years 6.3 percent of the colleges reported its use.

8. What academic systems (e.g. semesters, quarters, etc.) were used in specifying degree requirement over a period of twenty-five years?

At the close of the twenty-five year period, four types of academic systems (calendars) emerged: the semester system, quarter system, three-terms, and the 4-1-4 system.

1. Nine colleges, or 56.3 percent specified the semester system.
2. Three colleges, or 18.7 percent specified the three-terms system.
3. One college, or 6.3 percent specified the quarter system.
4. Three colleges, or 18.7 percent specified the 4-1-4 system.

Comparing quantitative measurements and academic systems at the close of the twenty-five year period for the semester hour and semester calendar, 18.7 percent of the colleges had retained the semester hour, while 56.3 percent specified the semester calendar.

9. Was there a shift away from or toward comprehensive examinations as part of the requirements for the baccalaureate degree?

The trend among the colleges included in the study was toward one form of a comprehensive examination. At the introduction of the twenty-five year period, 39 percent of the colleges required one form of a comprehensive examination; at the close of the twenty-five year period, 69 percent required one form of a comprehensive examination, an increase of about 30 percent.

10. Was there a shift away from or toward specifications of prerequisite courses in general education, the major, and electives as part of the requirements for the baccalaureate degree?

No particular trends were discerned about electives (those courses remaining after a student completes the general education and major requirements. The colleges did not specify through their catalogs how electives were to be used, except they were offered as part of the total requirements

for the baccalaureate degree). Catalog discussion about courses in general education and the major either specified prerequisite courses or required adequate background work before a student could pursue an upper level course. The trend was a shift toward greater specification of prerequisite courses among general education and the major.

11. Was there a shift away from or toward accepting credits-by-examination as part of the baccalaureate degree requirements?

1. Seven colleges, or 43.7 percent did not accept credits-by-examination of any type during the entire twenty-five year period.

2. Another 43.7 percent did not accept credits-by-examination during the first 15 years, but introduced credits-by-examination by offering College Level Examination Program (CLEP) credits during the last ten years of the twenty-five year period.

3. The remaining two colleges, or 12.5 percent, accepted under specified conditions, credits-by-examination for the entire twenty-five year period. One of these same colleges introduced CLEP during Block Interval V: 1973-1978.

Although there were an appreciable number of colleges accepting CLEP credits during the last 10 years of the twenty-five year period, this increase was not consistent in comparison with those colleges which did not accept credits-by-examination during the entire twenty-five year period. The trend appeared to be a shift away from colleges accepting credits-by-examination as part of the baccalaureate degree requirements.

Additional Research Questions

12. Were remedial courses offered during the span of twenty-five years?
Was credit awarded? Were credits applicable toward the baccalaureate degree?

The majority of remedial courses offered among colleges in the study were associated with English composition, were offered for no credit, and were not applicable toward the baccalaureate degree.

Analysis Between Colleges:

1. One college, or 6.3 percent, offered a remedial course in English composition for the entire twenty-five year period for no credit and was not applicable toward the degree.

2. Three colleges, or 18.7 percent did not offer a remedial course of any kind for the entire twenty-five year period.

Analysis Across Colleges:

The percent of colleges offering remedial courses over the twenty-five year period decreased from 53.8 percent in Block Interval I: 1953-1958 to 44 percent in Block Interval V: 1973-1978, a decrease of approximately 10 percent.

13. Did institutions publish a Non-discrimination Policy Statement over a period of twenty-five years?

1. Three colleges, or 18.7 percent did not publish a non-discrimination policy statement for the entire twenty-five year period.

2. Three colleges, or 18.7 percent published their first non-discrimination policy statement during Block Interval IV: 1968-1973.

3. The remaining colleges published their first non-discrimination policy statement during the last five years of this twenty-five year period: Block Interval V: 1973-1978.

14. Were minority courses offered during a period of twenty-five years?

The percent of colleges offering minority courses over the twenty-five year period increased from 15.3 percent in Block Interval I: 1953-1958 to 87.5 percent in Block Interval V: 1973-1978.

Conclusions

The conclusions (where stated) drawn from the findings of this study are conjectural statements since the study was to report "how" these sixteen colleges changed over a period of twenty-five years and not "why" they changed. Hence, the study was empirical and historical in nature. Also, the researcher is aware of the unequal number of catalogs in Block Intervals I: 1953-1958 (n = 13) and II: 1958-1963 (n = 15), and that any findings may mitigate the conclusions. However, any overall appraisal and/or statements of conclusion are speculative.

1. Change in number of hours required for the baccalaureate degree over the twenty-five year period.

There was an increase in the average number of semester hours required for graduation. It appears this increase may be attributed to the increase in student freedom of choice through electives, and/or the increase in the number of courses offered over this twenty-five year period.

2. Change in the requirements for the baccalaureate degree in general education, the major, and electives over the twenty-five year period.

Since the general education component diminished considerably, while the major component remained relatively stable; the net effect was an increase in the elective component of the student's undergraduate education. This finding may be related to the reduction in the required courses in English composition, foreign language, physical education, and religion (research question number four), and may be related to the perceived trends of student demands in the 1960s and 1970s (Winston, 1974, p. 215).

3. Change in the number of courses and majors offered for the baccalaureate degree over the twenty-five year period.

There is evidence that the number of courses and majors increased over this twenty-five year period. Reasonable assumptions for these increase may be attributed to student body growth and student body growth and student interest, faculty interests, technological needs for specialized personnel, social pressures, addition of minority course offerings, the introduction of many types of courses made necessary by a system of electives, and in general, the expansion of new knowledge (Dressel and DeLisle, 1969, p. 8).

4. Change in requirements in English composition, foreign language, physical education, and religion over the twenty-five year period.

Fewer colleges required English composition, foreign language, physical education, and religion over this twenty-five year period. These findings may be attributed to the decline in the number of majors in these subjects and subsequently the economic demands on these department's survival, and the ferment of the 1960s and 1970s when students called for greater curricular relevance, greater curricular flexibility, greater freedom of individual choice, greater student voice in planning their own education, greater curricular and instructional concern with social, economic, moral, and ethical values (Mayhew, 1977, pp. 124-125).

5. Shift toward comprehensive examinations as part of the requirements for the baccalaureate degree.

The trend among these colleges was a shift toward one form of a comprehensive examination or another. It appears that this twenty-five year period was one of considerable experimentation with various forms

of comprehensives and suggests that comprehensives seldom fully accomplish the goals intended.

6. Remedial courses were offered for no credit and were not applicable toward the baccalaureate degree over the twenty-five year period.

Of those colleges offering remedial courses, the majority of them were associated with English composition, were offered for no credit, and were not applicable toward the baccalaureate degree.

It was noted that the percentage of colleges offering remedial courses fluctuated between 1958 and 1978. During the period between 1958 and 1968, the percentage of colleges offering remedial courses decreased about 17 percent (there are no reasonable conclusions for this decrease). The period between 1968 and 1978, this trend was reversed where approximately 10 percent of the colleges began to offer remedial courses.

This increase may be due to the increase in the number of minority students attending colleges throughout the country as a result of colleges accepting federal assistance for special programs such as Talent Search and Upward Bound, as well as declining English and reading skills which were evident nationally during this time period. This is to say that white students were reflecting the same problems (Cross, 1976, pp. 4-6). It appears that the increase in these students exacerbated the need for remedial courses, particularly in the area of writing since these students themselves were unable to write anywhere near the standards set for them.

7. Institutions publishing Non-Discrimination Policy Statements over the twenty-five year period.

Approximately three-fourths of the colleges began to publish non-discrimination policy statements during the last 10 years of the 25 year

period. This finding appears to be strongly related to the period when colleges were accepting U.S. Government support programs such as Special Services, therefore any institution receiving federal assistance are required to publish a non-discrimination policy statement in all correspondence relating to education.

8. Minority courses offered over a period of twenty-five years.

Although a negligible percentage of colleges offered minority courses during the first 15 years of the 25 year period, the percentage of colleges offering minority courses were more conspicuous during the last 10 years (1968-1978) of the twenty-five year period. This finding appears to be strongly related to the period when colleges were beginning to recruit and accept minority students and accepting federal assistance for special programs.

Implications

This study attempted to determine if undergraduate curriculum trends in sixteen private liberal arts colleges changed over a period of twenty-five years: 1953-1978, based on the contents of published catalogs. This study, however, reported on "how" undergraduate curriculum trends changed and now "why" they changed. The educational implications are many.

Over this twenty-five year period there were events taking place in society as well as within institutions of higher education that had an influence on undergraduate education. There was the launching of Sputnik in 1957, the Free Speech Movement at the University of California at Berkeley, 1964, the inclusion of minorities in colleges and universities in the late 1960s, the escalation of the War in

Vietnam in 1970, the shooting of students at Kent and Jackson State in the spring of 1970, and the creation of community colleges and alternative school systems in the late 1960s and 1970s.

The major findings of this study were more apparent during the last ten years (1968-1978) of this twenty-five year period than the previous fifteen. The period, 1968-1978, corresponds when institutions of higher education were suffering from financial or enrollment declines, from public systems responding to perceived new needs, and from organizations not traditionally associated with higher education, such as brokerage organizations and propriety schools. This period also corresponds to the decline in general education majors (humanities, social sciences, and physical sciences) and a move toward majors in engineering, business, health sciences, and trade and technical arts (Levine, 1977, 32-33).

The Carnegie Surveys of 1969-1970 and 1975-76 (as reported in The Carnegie Foundation for the Advancement of Teaching, 1977; pp. 103-110) revealed that humanities majors dropped from 9 to 5 percent of all undergraduates between 1969 and 1976, social science majors dropped from 18 percent to 8 percent, and the physical science majors was a modest percentage-point increase from 7 to 8 percent.

Then there was the concerted and formal efforts on the part of faculties to become more intimately involved in governance and the widespread movement toward unionism and collective bargaining. In addition to these efforts on the part of the faculties, there were curricular and instructional changes going on in higher education. There was an interest in nontraditional learning, which makes great use of independent study,

life experience, educational potentialities of noneducational institutions, and many types of part-time study or interrupted periods of study (Mayhew, 1977, pp. 297-298).

As indicated earlier, educational implications are many. To what extent these events had on the undergraduate education in these sixteen liberal arts colleges, as well as other institutions of higher education, is uncertain. The only tangible evidence available is that general education majors are on the decline and trade and technical majors are on the incline.

Recommendations for Further Research

Recommendations drawn from the findings of this study include:

1. If a similar methodological approach is used, e.g., dividing colleges into five, five-year block intervals where one catalog is chosen from each college for each interval, it is recommended that each block interval have an equal number of catalogs per block interval. Provision for such continuity and consistency will strengthen findings and conclusions. In addition, the methodological approach should be longitudinal (over time) only and not include a cross-sectional approach, since the latter approach is meaningless over time.

2. Eliminate research questions that are not particularly relevant in determining undergraduate trends and/or practices. For example, What academic systems (academic calendars) were used in specifying degree requirements? or What changes in curricular structural arrangements (administrative units, e.g. departments, departments within a division, etc.) were evident between and across institutions over a period of twenty-five years? Questions of these types have some curriculum value,

but they do not necessarily indicate undergraduate trends and/or patterns.

3. It is recommended that if a similar research is attempted, there should be a team of investigators (for example 5) to eliminate over-count or under-count when providing statistical data.

4. A similar study is recommended to ascertain if these undergraduate trends are common among similar colleges, or if they are the exception. Such a study will enable curriculum planners and/or developers to compare trends and/or practices in order to determine if internal changes in their curriculum need to be updated or changed.

5. An in-depth study of colleges' curriculum records, minutes, notes, faculty correspondence, etc. are needed to determine "why" curriculum change occurred. This information will provide a more accurate and meaningful means of determining change. This information may be useful to curriculum planners in formulating a better understanding of undergraduate education. This approach may be in the form of case studies.

6. Further research beyond the three traditional components of the undergraduate curriculum is necessary since the principal concerns of tomorrow will be professional education (Blackburn and associates, 1976, p. 42). What kinds of knowledge best prepares people for careers? Such research may include an examination between the preprofessional and the professional; who should be admitted into medical school when ten apply for every position; and how will students know what to take to best prepare themselves for the profession they have in mind?

GLOSSARY

GLOSSARY

- Academic advising--is guidance or counseling concerned with the intellectual or cognitive components of the curriculum, such as course selection, prerequisites, major cognates, requirements and student performance and progress. ✓
- Academic time--refers to college calendars and the number of years of study required for a student to earn a college degree.
- Advanced Placement Program--is a College Entrance Examination Board endeavor that allows high school students to earn college credits. It involves college-level courses in high school and standardized tests at the completion of each course to assess whether there has been college-level learning. The examinations are prepared and graded by committees of high school and college faculty in 13 subject areas.
- American College Testing Program--is a college aptitude examination covering English, mathematic, science, and social science.
- Arts and sciences colleges--refer to institutions or units with larger institutions that offer programs in the fine arts, humanities, natural sciences, and social sciences.
- Audio-tutorial instruction--is a form of programmed education utilizing a tape-recorded study guide supplemented with texts, films, and other learning materials. This mode of instruction, which blends independent study with in-class meetings, was created by S. N. Postlethwait in 1961.
- Basic skills and knowledge--refers to the information and skills a student needs to commence college study. ✓
- Blanket grading--is the practice of giving all students in a class the same grade.
- Block calendar--also called the modular calendar or intensive course calendar, is an arrangement whereby students study one course at a time.
- Career advising--is guidance or counseling concerned with career planning, occupational preparation, and job placement. ✓
- Career education--is education intended to develop the skills necessary to live a full life that revolves about satisfying and meaningful work. ✓
- Certificate programs--are college courses of study that do not lead to degrees and are generally, though not universally, shorter than degree courses. They are usually highly specialized career programs, and they are occasionally geared for admission to licensure or career entrance tests.

Challenge tests--are examinations created by an individual college covering subject matter equivalent to that offered in a course. Students who pass challenge tests are commonly exempted from or given credit for the course counterpart of the examination.

Closed-book tests--seek to discover exactly what students have learned. Textbooks, notebooks, and other forms of assistance cannot be used during the test.

Cognates--are related courses outside of a particular discipline needed for work in that discipline, for example, mathematics for physics.

College--refers to both freestanding undergraduate institutions and undergraduate schools within large universities.

College Level Examination Program (CLEP)--is a form of credit by examination administered by the College Entrance Examination Board, intended for adults beginning college or resuming college study after a hiatus, who acquired the equivalent of college learning through experience, work, or self-education.

Community and junior colleges--are two-year institutions offering a variety of programs that might include credit-free instruction, liberal arts courses, professional/technical courses, degree and nondegree programs, and adult and continuing education. They are also referred to as "two-college."

Compensatory education--attempts to enhance students' skills, knowledge, and attitudes--not necessarily to qualify them for more advance academic programs but simply to build basic new strengths.

Competency-based education--places emphasis on learning outcomes and student attainment of them rather than on the experience (courses) that comprise a curriculum or on a prespecified amount of seat time that students must put in to earn a degree. In competency programs, students ideally earn a degree whenever and however they achieve the learning outcome required for graduation.

Comprehensive examinations--test students in broad areas such as general education or major studies. They are written and/or oral examinations covering material taught in more than one course and usually administered to all the members of one college class.

Comprehensive universities and college--include both comprehensive universities and college I and comprehensive universities and colleges II (see below).

Comprehensive universities and colleges I--are institutions that offer a liberal arts program as well as several other profession/technical programs. Many offer master's degrees; none offer doctorates.

Comprehensive universities and colleges II--are institutions that offer liberal arts programs and at least one professional or occupational program.

Compression of undergraduate programs--is a mechanism for reducing the time necessary to earn a bachelor's degree by one or more years by compacting the course of study.

Concentration. See major.

Contract learning--involves a pact between a student and one or more faculty members outlining a course of studies to be pursued over an agreed-upon period of time. The course of studies may include formal courses, independent study, and experiential learning.

Core general education programs--are tightly knit, yet broad and often interdisciplinary, series of courses, usually required of all students.

Course overload--occurs when a full-time student enrolls in more than the institutionally recommended or prescribed number of courses or credits per term.

Covert grading--involves evaluating students but not informing them of their grades.

Credit--is a time-based quantitative measure assigned to courses or course-equivalent learning. A credit can be defined as 50 minutes of instruction per week for a term. As terms vary in length, credits are usually referred to as semester or quarter credits. Unit and credit hour are synonyms for credit.

Credit-by-examination--refers to the practice of granting students college credit for passing tests based on the subject matter of college courses they have not attended.

Curriculum--is the body of courses and formally established learning experiences presenting the knowledge, principles, values, and skills that are the intended consequences of the formal education offered by a college.

Degrees--are grades or ranks which colleges and universities confer upon students for their educational attainments.

Developmental education. See compensatory education.

Disciplinary major--the most common form of major, is a concentration in an area having a unique body of knowledge and method of inquiry. Biology, English, and sociology are examples of disciplinary majors.

Discipline--refers to a discrete body of knowledge with a characteristic regimen for investigation and analysis, such as history, English, and biology.

Distribution general education requirements--are designed to ensure that each student takes a minimum number of courses or credits in specified subject areas. There are four forms of distribution requirements--prescribed distribution requirements, minimally prescribed or "smorgasboard" distribution requirements, recommended distribution guidelines, and a small group of programs which can be described only as miscellaneous.

Doctorate-granting universities--include both doctorate-granting universities I and doctorate-granting universities II (see below).

Doctorate-granting universities I--awarded 40 or more Ph.D.s in 1969-70 or received at least \$3 million in total federal financial support in 1969-70 or 1970-71.

Doctorate-granting universities II--are institutions awarding at least ten Ph.D.s, with the exception of several embryonic institutions.

Dossier--is a nongraded transcript listing student educational activities and containing faculty and student evaluations and examples of student work.

Double major--simply involves completing the requirements of two majors.

Dropping out--is leaving college on one's own volition without receiving a degree and without returning at a later date.

Early admission--refers to the practice of enrolling students in college prior to completing high school.

Elective general education curriculum--exists when no general education program is prescribed by a college. The student can create a general education based on whatever courses he or she selects or may simply neglect general education.

Essentialism--is a philosophy that holds that education should be based upon an "essential" or prescribed body of knowledge dealing with the heritage of humankind. The subject matter tends to be abstract or conceptual rather than applied or practical. There is no one essentialist curriculum; however, all essentialist curricula are teacher centered, utilize tried-and-true forms of pedagogy, and are premised on the assumption that learning is hard work which is often done unwillingly by students.

Experiential learning--refers to learning acquired outside the college classroom. The source of learning may be noncollege courses, work, self-teaching, travel, or other life activities. Such learning can occur before or during college enrollment.

Extracurriculum--consists of the noncredit and nonclassroom activities available to students through recreational, social, and cultural activities sponsored by colleges or by college-related organizations.

Field distribution subjects--involve no specified courses but only require that students take courses or credits in one or more of three broad areas--humanities, natural science, and social science.

Field major--are broad-based concentrations composed of several disciplines in related areas. Natural sciences, social science, fine arts, and humanities are examples of such concentrations.

Formative evaluation--is a nonfinal assessment designed to identify strengths and weaknesses in student performance. The emphasis is upon improvement of student achievement.

4-1-4 calendar--consists of two four-month terms separated by a one-month mini-term which is used for intensive study, special projects, instructional innovation, or off-campus study.

Free elective system--in its purest form requires of students no prescribed courses; every student can freely elect whatever courses he or she desires.

Freshman seminar--is a pedagogical technique introduced by Nathan Pusey at Lawrence College in 1945. It is basically a small class concerned with general education and writing for freshmen. Intimate faculty-student contact is emphasized.

General education--is the breadth component of the undergraduate curriculum. It usually involves study in several subject areas and frequently seeks to provide a common undergraduate experience for all students at a particular institution. See liberal education.

General understanding courses--are intended to give students a broad and basic undergraduate learning experience.

Grade inflation--is the artificial raising of student grade-point averages.

Great Books--refers to slightly more than 100 books intended to embody the heritage of Western civilization, ranging from Homer to Einstein. They form the basis of the St. John's College curriculum.

Hidden curriculum--consists of learning that is informally and sometimes inadvertently acquired by students in interactions with fellow students and faculty members and inferred from the rules and traditions of the institution.

Higher education--refers strictly to college and university education.

Honors programs--are courses of study reserved for excellent students.

Independent study--is out-of-class, self-directed education with varying degrees of faculty guidance or supervision. It can be an individual or group endeavor.

Instruction--is guidance or direction intended to cause learning.

Interdisciplinary courses--are courses that combine two or more disciplines.

Interdisciplinary major (also called the interdepartment major)--is any formally established or institutionalized concentration linking two or more disciplines. Field majors and joint majors are forms of the interdisciplinary major.

Introductory courses--are the most common element in general education programs. They are overview courses such as "Introduction to Sociology."

Joint major--involves student construction of a concentration with the participation and consent of two departments. The student generally fulfills most of the requirements of both departments.

Junior colleges. See Community colleges.

Learning--is the acquisition of knowledge, skills, and attitudes.

Learning centers--are walk-in, frequently individualized, basic skills resources centers for students.

Lehrfreiheit--is freedom of inquiry, teaching, and publication for faculty members.

Lernfreiheit--is freedom for the student to move from university to university and to take whatever courses he or she chooses.

Letter grades--come in two forms--traditional letter grades, the familiar A, B, C, D, F, with or without pluses and minuses; and modified letter grades, which include variations such as no F or no D grade.

Liberal arts colleges--include both liberal arts colleges I and liberal arts colleges II (see below).

Liberal arts college I--are those included among the 200 leading baccalaureate-granting institutions in terms of number of graduates receiving Ph.D.s at 40 leading doctorate-granting institutions for 1920 to 1966. They are also referred to as "selective" and "the most selective" liberal arts colleges.

Liberal arts colleges II--include all liberal arts colleges not meeting the criterion for liberal arts I. They are also referred to as "less selective" liberal arts colleges.

Liberal education--is perhaps the most commonly used synonym for general education.

Major (or concentration)--which usually consists of a number of courses in one field or in two or more related fields, is the depth component of the undergraduate curriculum.

Major-minor--involves completing one major and a shorter-term concentration in another area. The shorter-term concentration, or minor, generally involves a course of study equivalent to about one-half of a major.

Minor--an abbreviated concentration, generally consisting of half as many courses as a major.

Nontraditional--describes students (such as minorities, women, adults) and curricula (such as external degree program, credit for prior experience) which were not integral parts of the American college in the past.

Numerical grading--generally relies upon a 1-to-100 scale.

Open-book tests--allows students to use resource materials such as textbooks and notebooks during examinations.

Oral evaluations--are formal, face-to-face assessments of student performance.

Oral test--is generally a face-to-face, question-and-answer session between a student and his or her teacher, though it can involve a student and a panel of faculty members.

Pass-fail grading--consists of only two grades, which may be called credit-no credit, satisfactory-unsatisfactory, pass-no credit, or pass-fail.

Peer advisers--are students knowledgeable in some area of undergraduate concern who counsel other students desiring to learn about that area.

Peer grading--involves evaluation of each student by the other members of the class.

Peer teaching--involves students teaching one another.

Perennialism--is a philosophy of education founded on the assumption that the substance of education is perennial or everlasting. Perennialists view the ability to reason as the characteristic that distinguishes human beings from other animals and believe that education should be concerned principally with training the rational faculties. Perennialist also believe that people are everywhere alike and that education should be the same for everyone. As a result, perennialist education, or the training of the rational faculties, is based upon the study of immutable and universal truths, which are thought best acquired by study of the Great Books.

Postsecondary education--refers to all types of education beyond high school.

Prerequisites--are courses specified as requirements for taking more advanced courses.

Prescribed distribution requirements--involve combination of specified courses, student course options from short preselected lists, and a limited number of electives in designated areas.

Progress by examination curriculum--involves earning a college degree by passing tests rather than courses.

Progressivism--is a philosophy of education based on life experience. The practical progressive philosophy is student centered, which is to say that student interest is the primary determinant of the direction of education. The instructor is viewed as an expert and advisor whose job is to guide the student. The progressive curriculum is problem-oriented rather than subject matter based. Progressives believe that the methods of critical thought are life-long skills while bodies of knowledge are continually changing.

Quarter calendar--consists of four ten-week terms. The full-time student takes three courses per quarter and attends three quarters per year.

Remedial education--is instruction designed to bring students up to required basic skills or knowledge levels in order for them to attend a program for which they were previously ineligible. Its purpose is to correct weaknesses.

Scholastic Aptitude Test (SAT)--is a college aptitude test in verbal and mathematical skills.

Self-evaluation--is assessment by the learner.

Semester calendar--consists of two terms which average 15 weeks each, but can be as long as 20 weeks. Full-time students take four or five courses per term.

Seminar--is generally a small class consisting of advanced students and a faculty member investigating a field of the faculty member's research.

Senior seminar--is a course designed to cap the general education experience by assembling, in one class, students with differing majors for the purpose of solving a common problem.

Senior thesis or project--is an undergraduate creation produced by upper-division students, generally in an area related to the major.

Sequencing--involves courses that build upon one another and must as a result be taken in a particular order.

Stopping out--is leaving college with the intention of returning at a later date.

Student-created major--is a concentration constructed by the student with approval of a designated university officer or committee.

Summative evaluation--is terminal assessment intended to provide a final or overall judgment of student performance. The emphasis of summative grading is upon describing how well the student succeeded.

Tests--are means of measuring student ability or attainment.

Three Rs--are reading, writing, and arithmetic.

Transfer--refers either to a student who changes colleges or to the process of changing colleges.

Trimester calendar--is a variation of the semester system consisting of three 15-week terms. Full-time students attend two terms per year and take four courses per term or attend three terms per year and take three courses per term. The latter arrangement is called the 3-3 calendar.

Tutorial--is a formal course pairing one student and one faculty member.

Undergraduate education--refers to learning opportunities available to students at the pre-baccalaureate level.

Unit. See credit.

APPENDICES

APPENDIX A

COLLEGES PARTICIPATING IN THE STUDY BY CARNEGIE TYPE

Liberal Arts College I

1. Albion College, Albion, Michigan, 1835, coed.
2. Amherst College, Amherst, Massachusetts, 1821, coed.
3. Carleton College, Northfield, Minnesota, 1866, coed.
4. Colby College, Waterville, Maine, 1813, coed.
5. Furman University, Greenville, South Carolina, 1825, coed.
6. Guilford College, Greensboro, North Carolina, 1834, coed.
7. Kalamazoo College, Kalamazoo, Michigan, 1833, coed.
8. Kenyon College, Gambier, Ohio, 1824, coed.
9. Reed College, Portland, Oregon, 1904, coed.

Liberal Arts College II

10. Alma College, Alma, Michigan, 1886, coed.
11. Birmingham-Southern, Spartanburg, South Carolina, 1856, coed.
12. Converse College, Spartanburg, South Carolina, 1889, coed.
13. Hope College, Holland, Michigan, 1851, coed.
14. Mars Hill College, Mars Hill, North Carolina, 1856, coed.
15. University of the Pacific, Stockton, California, 1851, coed.

Comprehensive Universities and Colleges II

16. St. Olaf College, Northfield, Minnesota, 1874, coed.

APPENDIX B

SELECTED COLLEGE CATALOGS BY BLOCK INTERVALS

<u>Albion</u>	<u>Alma</u>	<u>Amherst</u>	<u>Birmingham-Srn</u>
1956-1957 B-I	1955-1956 B-I	NCA B-I	1957-1958 B-I
1961-1962 B-II	1961-1962 B-II	1961-1962 B-II	1961-1963 B-II*
1965-1966 B-III	1967-1968 B-III	1965-1966 B-III	1967-1968 B-III
1972-1973 B-IV	1970-1971 B-IV	1970-1971 B-IV	1972-1973 B-IV
1977-1978 B-V	1976-1977 B-V	1977-1978 B-V	1976-1977 B-V
<u>Carleton</u>	<u>Colby</u>	<u>Converse</u>	<u>Furman</u>
NCA B-I	1957-1958 B-I	1955-1957 B-I*	1957-1958 B-I
1961-1963 B-II*	NCA B-II	1960-1961 B-II	1961-1962 B-II
1967-1968 B-III	1964-1965 B-III	1966-1967 B-III	1967-1968 B-III
1972-1973 B-IV	1971-1972 B-IV	1972-1973 B-IV	1971-1972 B-IV
1977-1978 B-V	1977-1978 B-V	1977-1978 B-V	1976-1977 B-V
<u>Guilford</u>	<u>Hope</u>	<u>Kalamazoo</u>	<u>Kenyon</u>
1953-1954 B-I	1956-1957 B-I	1955-1956 B-I	1954-1955 B-I
1959-1960 B-II	1962-1963 B-II	1960-1961 B-II	1958-1959 B-II
1964-1966 B-III*	1967-1968 B-III	1964-1966 B-III*	1964-1965 B-III
1969-1971 B-IV*	1972-1973 B-IV	1970-1971 B-IV	1970-1971 B-IV
1976-1977 B-V	1976-1977 B-V	1977-1978 B-V	1975-1977 B-V*
<u>Mars Hill</u>	<u>Reed</u>	<u>St. Olaf</u>	<u>University-Pfc</u>
1955-1956 B-I#	1955-1956 B-I	NCA B-I	1954-1956 B-I*
1960-1961 B-II#	1960-1961 B-II	1961-1962 B-II	1958-1960 B-II*
1965-1966 B-III	1965-1966 B-III	1964-1965 B-III	1962-1964 B-III*
1970-1971 B-IV	1970-1971 B-IV	1970-1971 B-IV	1970-1972 B-IV*
1977-1978 B-V	1975-1976 B-V	1977-1978 B-V	1976-1977 B-V

Block Intervals: Block I: 1953-1958
Block II: 1958-1963
Block III: 1963-1968
Block IV: 1968-1973
Block V: 1973-1978

* = Two Year Catalog
- Two-year college

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