Summary profile of the transfer students at selected four-year educational institutions in Massachusetts.

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SUMMARY PROFILE OF THE TRANSFER STUDENTS
AT SELECTED FOUR-YEAR EDUCATIONAL INSTITUTIONS
IN MASSACHUSETTS

A Dissertation Presented
By
CHARLOTTE RAHAIM

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SUMMARY PROFILE OF THE TRANSFER STUDENTS AT SELECTED FOUR-YEAR EDUCATIONAL INSTITUTIONS IN MASSACHUSETTS

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Many thanks are due many people for their help and encouragement, but special thanks to Dr. F. Thomas Clark, my chairman, whose patience has made a significant difference.

I would like to acknowledge and thank Dr. William Lauroesch and Dr. Douglas Forsyth for their considerable assistance in the design of the study, and Dr. William Tunis for his constant urging that I not let other concerns interfere with the progress of this study.

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Finally, special acknowledgement is due Dr. Ernest Beals who initiated the formation of the State Transfer Articulation Committee, which is responsible for collecting the data necessary for making decisions relating to transfer articulation.
ABSTRACT

Purpose of the Study

The purpose of this investigation is to develop a profile based on data demographic in nature, as well as data relating to the attitudes and needs of transfer students in areas of curriculum financial aid, housing and counseling of transfer students in selected private and public four-year colleges in the Commonwealth of Massachusetts, with a view to identification of those student characteristics which can be better accommodated through systematic institutional and statewide planning.

Among the questions investigated in this study are the following: Who is successful in being accepted for transfer admission? What are the characteristics of these individuals--age, sex, marital status, veteran status, residence, previous academic program, previous academic record? What are their curriculum preferences? Where do they come from? Do they need vocational counseling, assistance with housing and financial aid? How will they support themselves? Will these students have to work to support themselves in their educational endeavors? These are the questions the answers to which would seem to inform the efforts to accommodate these transfer students.

Of the 10,000 questionnaires distributed to transfer students enrolled in the Fall of 1972 in 13 public and 25 private four-year educational institutions in Massachusetts,
7,182 were completed and returned. From the analysis of the data a profile emerges of a typical transfer student in the four-year institutions in Massachusetts. The typical transfer student is under 24 years of age, single, slightly more likely to be male, a Massachusetts resident, at least in the public sector, a non-veteran who attended college immediately after high school. The typical transfer student more likely moved from one four-year institution to another (55 percent) than from a two to four-year institution, enrolling as a junior in his first choice transfer institution, which is as likely to be public as private. The typical transfer student, who has not been in poor academic standing and has a minimum cumulative average of 2.5, feels sure of his vocational goals and does not need career information, and aspires to at least a bachelor's degree, and possibly a master's. The typical student will finance at least the undergraduate portion through work and family support, with no assistance from college financial aid.

The above profile of the typical transfer student suggests that the four-year institutions have selected a very low risk student, and almost "sure bet." The student has clear goals, is academically qualified, and is asking for no financial aid.

Some findings of the study were unexpected. Fifty-five percent of the students transferred from one four-year institution to another rather than from a two-year to a four-
year institution. Seventy-four percent of the students did not apply for financial aid. Thirty percent of the students indicated a need for vocational counseling or career choice information. Eighty-eight percent of the transfers were at the college of their choice. Finally, although the numbers of males and females enrolled as transfers is approaching equality there is an indication that admissions requirements for women are higher than for men.

This study was the second segment of a three part investigation to collect data on which state-wide policy decisions can be based. The first segment investigated potential transfers at the two-year colleges in Massachusetts. The third segment currently in process will attempt to determine how many students applied but were not successful in gaining access to a four-year institution.
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The total enrollment in higher education in the United States in 1945 was just equal to the community college enrollment in 1972. The master plan for the development of community colleges in Massachusetts envisioned the placement of a community college within commuting distance of 95 percent of the residents of the Commonwealth. The location of the community colleges and their non-competitive admissions policy provided access to higher education for new populations, larger numbers of women, minorities, adults, students whose high school records were not adequate to gain admission directly to a four-year selective institution, the non-college prep students who too late decided to attempt higher education, students who failed at senior institutions and needed a second chance, students who were financially unable to attend a residential college or were not emotionally ready to leave home.

The community college took on a difficult task; the education of such a diverse clientele with very diverse goals.

Fred Kintzer calls the community college the "Middleman in Higher Education," attempting to prepare some students for a vocation, provide opportunity for exploration and/or personal growth for others, and to send those who were academically successful to four-year educational institutions.

It is with this latter group that this study is concerned.
and about whom this study was designed.

The egalitarian philosophy of the community college provided educational opportunities for previously non-access people. Implicit in the provision of the access was an assurance that if the student was successful at the two-year college, he could continue as far as he was capable and wished to continue. That implicit promise was made without any attempt on the part of the educational leaders to insure access to the four-year institutions through negotiations among the segments of higher education. The students attempted on their own and later with the help of transfer counselors to find a place in the four-year institutions. Unfortunately, those who did not make it to the four-year institutions very frequently were those who needed assurance of financial assistance, which certainly was not forthcoming, women who were not able to travel because of family responsibilities or needed special flexible scheduling, students whose academic performance had improved each successive semester, but whose cumulative average had not reached the minimum 2.5 required for admission by most four-year institutions. Other groups of students who might not have made it were those applying for special programs where space in the four-year institution was limited, i.e., nursing, special education, industrial arts, or business education. Little or no official coordination or articulation occurred on the state level to assure a smooth transition from the two to four-year
institutions.

As early as 1966, Knoell and Medsker's study suggested that proper matching of transfer student and institution is probably more important than matching freshmen student and institution. No state level planning occurred with the exception of at the University of Massachusetts at Amherst, which committed itself to accepting all qualified community college students who were recommended by their sending institution. Finally, in the Fall of 1971, twenty-one individuals at various two and four-year colleges, both private and public, organized to begin to address the problems of transfer articulation. This investigator was one of the original twenty-one who shared the view that community colleges promised many non-access people a chance at higher education and an opportunity to strive for the highest education goal that an individual believed he was capable of achieving. The community college delivered a part of the promise, but the four-year institution had to permit the continuation of that opportunity.

The transfer from the two-year college is but part of the problem. The results of this study indicate that 55 percent of the transfers moved from one four-year college to another. So the question of student mobility becomes important—who should be where and when in his educational career?

This study is one segment of a three-part investigation to gather data about the transfer student. The three studies
together will provide a data base, and a model for continuous studies, essential for state-wide policy decisions regarding higher education in Massachusetts.
A National Educational Problem

The emerging hierarchical\(^1\) model of American higher education, whereby public and private junior and community colleges are striving to open educational opportunities to a broader population primarily in degree preparatory programs but also in continuing education programs, has generated a serious educational problem: what to do with transfer students, who require qualitatively different admissions procedures than first time admissions. The problem is particularly acute in two areas: transfers from junior colleges into four-year institutions, and transfers between four-year institutions. The lack of substantiated data on both local and national levels has hampered the formulation of truly articulated transfer procedures among all higher education institutions. With some notable exceptions, much of the data that does exist is highly localized and concentrated primarily on academic performance of transfers as compared to native students. This is an extremely important area and the results of this type investigation can do much to ease the problems of curriculum coordination and grading.

\[^1\]Hierarchical model refers to a three tiered system, whereby universities emphasize research and doctoral training, the state colleges emphasize broad college work and professional training, and the community colleges emphasize community service, a wide variety of career education and equal access to higher educational opportunity.
systems. It also has implications for other areas such as the granting or refusing of transfer credits between feeder institutions and their senior counterparts. However, extant data do not provide answers to the nearly endless stream of questions concerning transfers: Who are they? How many? What are their educational needs and expectations? What is their background and how does it fit into a multi-faceted educational system? Are four-year institutions providing enough slots to insure the equal access that is becoming the philosophical basis of higher education in this country? How are they different from native students? What are their occupational needs and expectations? Have they enough information about the choices open to them? What patterns of coming and going from particular institutions exist? Why do they want to transfer?

The problem of student mobility in higher education and the humane transfer of students to the upper division institutions will be addressed in this investigation. Answers to the above questions and more are central to the smooth, efficient process of getting from junior institutions to senior institutions. Without an efficient process that allows students information and counseling about exactly what choices they have—and educators information about why and what patterns of student choices exist—there will be an increasing and unnecessary loss of educational resources that, if current transfer trends continue, can only be described as incalculable. Some of the most important
decisions concerning the structure and philosophy of American higher education will be made in the coming decade. Some of those decisions relate to the question of access, and as attitudes toward access in higher education progress from elitist to egalitarian, some assurance must be forthcoming that those previously non-access people who have proven ability in the community college will be permitted to continue their education. With the phenomenal growth of community colleges, a new educational structure is appearing, the upper division junior and senior year and graduate study. By definition, those institutions rely heavily upon the community colleges as feeder institutions. Both the change in philosophy and structure will demand increased articulation among the segments of higher education. The transfer process will have a central position in these decisions. Yet, perhaps because of the recentness of the size of the problem, there is totally inadequate data on which to base these decisions. One can even argue that there is not very much awareness of the problem, that is, the humane transfer of students to upper division institutions. Willingham points out that, while there is no standard reference textbook in the admissions field, those standard references such as the Handbook of College and University Administration and other surveys and special reports and annual conferences have given passing attention at most to transfers. The need for policy

articulation among the institutional segments of higher education is obvious.

The term "articulation" has been used in a number of ways: most narrowly to mean the coordination of educational programs; more broadly to mean the process and procedures used to effect that coordination; and most generally to mean the coordination of a variety of programs, practices, and services, both curricular and extra-curricular, and also the process and procedures used to effect these coordinations. It is in this more general sense that articulation will be used in this study.

While transfer articulation is not a new problem and while some areas of the country, through their longer experience with community college systems, have been forced to establish working guidelines in curricular and extra-curricular areas, the rapid growth of the junior college system, the expanded and more untraditional student population they are chartered to attract, and the growing mobility of the general student population in both two-year and four-year institutions suggest that the full scope of the problem is just beginning to appear. Full time enrollments in community colleges have risen from roughly one-fourth of the enrollments in four-year institutions in 1960 to almost one-half in 1970.\(^1\) Although

annual national figures on transfers are not kept by the U.S. Office of Education, recent surveys indicate that first time transfers increased seven percent from 1970 to 1971 while first time freshmen decreased by two percent.\(^1\) Willingham, extrapolating on earlier data, suggests that there is now roughly one transfer student entering senior institutions for every three first time freshmen, and that the increases in community college enrollment have probably increased the proportion of transfers coming from community colleges from four in ten to five in ten since 1966.\(^2\) In this same study, Willingham finds that from 43 senior institutions in the ten states that enroll 70 percent of all public two-year students, about three transfers entered for every five entering freshmen in 1971.\(^3\) The proportion is inflated above the national average by the sheer numbers of public two-year students in those ten states, but it is a good indication of the number of students that any state committing itself to the broader educational system that junior colleges represent can expect in the future. In those ten states, 58 percent of the transfers came from public

\[^1\text{Richard E. Peterson, American College and University Enrollment Trends in 1971 (Carnegie Foundation for the Advancement of Teaching, Berkeley, Calif., 1972).}\]

\[^2\text{Willingham, op. cit., p. 4.}\]

\[^3\text{Willingham, op. cit., p. 61.}\]
community colleges,\(^1\) again indicating what a substantial commitment to a public higher education system can entail for the four-year institutions that are, for the greater majority of two-year students, expected to provide at least a baccalaureate degree.\(^2\) In these ten states, then, the movement from two-year institutions to four-year institutions has become a major part of the total admissions procedure.

The study of transfer students entering four-year institutions which is reported in this document was done in Massachusetts. Until the past five or six years, there was little involvement in the transfer process, and there was no official state participation until September of 1971. At that time twenty-one Massachusetts educators, mostly admissions and transfer officers at public and private two and four-year institutions, came together and established themselves as the State Transfer Articulation Committee (STAC), of which this investigator is a member. In a survey of new student vacancies in Massachusetts for September of 1972, STAC found that 10,000 vacancies were being reserved for transfers at 54 four-year colleges in Massachusetts and that 36,985 vacancies were being reserved for new freshmen, or that 22 percent of all new student vacancies were intended for

\(^{1}\) *ibid.*

\(^{2}\) Massachusetts State Transfer Articulation Committee, *Study of Two-Year College Students: Implications for Massachusetts Four Year Colleges and Universities* (STAC monograph, Amherst, Massachusetts, August 1972), p. 31.
transfers. The committee's report went on to point out that:

There is no doubt but that the two-year colleges for many students, the public slightly more than the private, serve the role of the first two years of a four year baccalaureate degree program. Only 25% indicated that they do not plan to transfer. With the expected expansion of the two-year colleges, and with a high percentage expecting to transfer to four-year colleges, the senior institutions as a part of the educational hierarchy must prepare themselves to accommodate these students in all aspects in the years just ahead.

Finding a very young (87 percent under 24 years old, and 59 percent under 20), 90 percent unmarried student population, 65 percent of whom aspired to the baccalaureate degree or higher, the study found that:

It becomes clear that curriculum articulation between two- and four-year institutions is one of the most pressing needs in higher education today— not only in relation to the availability of appropriate courses, but also in terms of transfer credit evaluation. Presently within the Massachusetts four-year colleges there is tremendous inconsistency and many inequities in the evaluation of transfer credit.

In addition to the inconsistencies in curriculum articulation, the committee also found a clear lack of information concerning financial aid and work plans, housing, vocational and academic counseling, quotas on transfer

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1 STAC, op. cit., p. 2.
2 ibid., p. 17.
3 ibid., p. 19.
admissions, and preferences on both the students' and the receiving institutions' part concerning intended majors and career plans.

Massachusetts is not alone in these inconsistencies. The 1972 Willingham study, which began as a literature search and then spread into documenting related questions concerning transfer articulation, showed that even in those ten states which enrolled 70 percent of public community college students, the 43 institutions of the study population followed only about half of the guidelines derived from the 1968 American Council on Education's Joint Committee and that, of the guidelines followed, the preponderance that generated that fifty percent actually required the institutions to do nothing!\(^1\) In other words, those areas such as admitting transfer students from new colleges on the same basis as those from accredited institutions, granting credit on the basis of CLEP scores, evaluating D grades of transfer students on the same basis as those earned by native students or equalizing the procedures, deadlines and qualifications for financial aid, averaged about 69 percent compliance with the suggested guidelines of 1968, while those areas such as providing information to the community colleges on the performance of their former students, visiting primary feeder schools at least twice a year, studying performance of transfer students or developing special materials for

\(^1\)Willingham, op. cit., p. 63.
orientation of transfers, averaged about 44 percent
compliance. Willingham concludes that "Failure of many
colleges to accept such recommendations has no ready expla-
nation save academic inertia."^1

There is a basic need to study more than just the
academic performance of transfer students since their needs
and choices affect many areas in the four-year institutions
that will receive them. These areas, as mentioned above,
include curriculum coordination, financial aid, housing and
counseling. With the exception of a continuing longitudinal
study designed and implemented by Beals at the University of
Massachusetts,^2 there is no systematic collection of data
about transfer students at any other institution in
Massachusetts, let alone on a state-wide basis. There is a
significant need for this data, particularly since the
community college system in Massachusetts has grown since
1960 from one to fifteen institutions. There is no doubt
that an increasing number of students from each of these
institutions plan to transfer, and that the pressure is
growing on four-year institutions to provide space and
appropriate services for them. Transfer enrollment at the
University of Massachusetts at Amherst has increased from

^1Willingham, op. cit., p. 63.

^2Ernest W. Beals, A Study of Academic and Performance
Characteristics of Massachusetts Community College Transfer
Students at the University of Massachusetts--Amherst,
99 in 1962 to 2,000 in 1972. This phenomenal growth in Massachusetts, with a corresponding growth nationwide, where perhaps as many as 500,000 transfers enrolled in September of 1972, demands careful planning by the four-year receiving institutions and by the statewide educational policy makers.

If the hierarchical model of higher education, whereby universities emphasize research and doctoral training, the state colleges emphasize broad college work and professional training, and the community colleges emphasize community service, a wide variety of career education and equal access to higher educational opportunity\(^1\)--if this model is to lower the personal, financial and geographical barriers to baccalaureate degrees, it must be based on sound, substantiated data.

**Purpose of the Study**

The purpose of this investigation is to develop a profile based on data demographic in nature, as well as data relating to the attitudes and needs of transfer students in areas of curriculum, financial aid, housing and counseling of transfer students in selected private and public four-year colleges in the Commonwealth of Massachusetts, with a view to identification of those student characteristics

which can be better accommodated through systematic institutional and statewide planning.

Among the questions investigated in this study are the following: Who is successful in being accepted for transfer admission? What are the characteristics of these individuals—age, sex, marital status, veteran status, residence, previous academic program, previous academic record? What are their curriculum preferences? Where do they come from? Do they need vocational counseling, assistance with housing and financial aid? How will they support themselves? Will these students have to work to support themselves in their educational endeavors? These are the questions the answers to which would seem to inform the efforts to accommodate these transfer students.

Limitations of the Study

The areas needing investigation in transfer articulation are too numerous to attempt in one study, therefore this study focuses specifically on characteristics of transfer students in selected four-year educational institutions in Massachusetts, the results of which are not generalizable to any other state.

Some respondents completed the questionnaire in the Spring or Summer of 1972 before actually enrolling in the Fall, whereas others completed the questionnaire after matriculation, therefore some of the institutions included
questionnaires from accepted but withdrawn students. Because of the small number of withdrawn students, no attempt is made to analyze those results.

Because the student was asked to complete the questionnaire after he had been accepted, this study cannot deal with those students who applied but were not accepted, therefore, there is no information about the number of applicants who were not accommodated in the four-year institutions.

This study is not primarily concerned with the academic performance of the transfer student at the four-year institution and it does not compare performance records of students at different receiving institutions but from one sending institution. Academic performance is only considered in the light of the minimum cumulative average needed for transfer.

This study cannot determine trends in intended majors since this is a one-time effort.

Significance of the Study

A cursory overview of the practices and procedures concerning transfer students, perhaps taken through just a cursory examination of admissions brochures and transfer-related materials, shows that the transfer student's situation leaves much to be desired. Transfer students appear to be treated as second-class citizens who are used by
receiving institutions to fill dormitory space, "beef up" departments in which the enrollment of undergraduates is waning, or bolster enrollment in undersubscribed courses. The transfer students are generally accepted late in May and June after freshman numbers are established--too late in most instances to receive financial aid, to establish their preferences in living arrangements, to receive any significant academic or vocational guidance before their first, crucial semester, or to even register for those first-quality courses that close our during pre-registration and registration periods before their admittance. It is hoped that the collection and analysis of the data about transfer students in the four-year institutions in Massachusetts (the first study of its kind on a statewide basis in Massachusetts) will provide data for decision making and will provide an opportunity to begin to realize where the transfer students create a "press" on higher education in Massachusetts and where higher education creates a "press" on the transfer students. In short, the study focuses on transfer students--a group that could become a majority of students in four-year institutions in Massachusetts in the not too distant future. The hope is that this and other data will be used to determine policies which will guarantee that these students will not become yet another group of "second-class citizens" in the educational system.
Organization of the Dissertation

Following this introductory chapter, Chapter Two will present a search of the related research and literature concerned with transfer articulation, which consists primarily of four national studies: the Knoell-Medsker study of student performance in 1964; the Guidelines of the Joint Committee on Junior and Senior Colleges in 1966; the Willingham-Findikyan survey of admissions patterns in 1969; and the Kintzer survey of articulation in 50 states in 1970. Smaller, localized studies will be used where they point out particular problems brought up by these four studies, especially the ten problems identified by Willingham in his 1972 study, to which this study owes a great debt for the thoroughness of its literature search and for the identification of salient articulation problems. Chapter Three will present in fuller detail the methodologies and procedures used in the accumulation and analysis of this study's data. Chapter Four will present the findings of this demographic and attitudinal investigation, compared, where appropriate, to the findings of the two year study conducted by STAC during the spring semester of 1972. Chapter Five will present a summary, conclusions, and recommendations drawn from the findings and related documents.
CHAPTER II
RELATED LITERATURE AND RESEARCH

Articulation until very recently has been largely a one-way situation, a series of policies and procedures dictated by senior institutions.¹

Much of the published material on transfer students and transfer articulation has been concentrated on either academic performance or specific problems on an institutional or state level; while these separately may cover the range of transfer problems, together they do not make up a sound basis for institutional or statewide planning in other states. The problems faced by—and the individual nature and purpose of—different feeder and receiving institutions in different localities are determined by a number of factors that do not necessarily cross state or regional lines. For example, the transfer procedures worked out by those states (Florida, Texas, Georgia, Illinois) which proceeded on a formal or legal basis required substantially different data from those states (North Carolina, Oklahoma, Oregon, Virginia, among others) who proceeded on a more internal state agency basis.²
Likewise, in some states the commitment to public two-year colleges has presented a different set of problems than

those states without an extensive community college system, or those states who receive many out-of-state transfers.

To this date there have been four major projects with a comprehensive approach and nationwide implications concerning transfer articulation, and this chapter will be organized to give a detailed review of them. These studies are the foundation of all inquiry into articulation. Other more localized studies, many of which are cited here, offer special insights.

Knoell-Medsker Studies of Transfer Academic Performance and Factors Affecting Performance

In 1957 an emerging awareness of the potential problems of transfer articulation led to the formation of a Joint Committee on Junior and Senior Colleges by the Association of American Colleges and the American Association of Junior Colleges. This committee was later joined by the American Association of Collegiate Registrars and Admissions Officers. Under the chairmanship of James L. Wattenberger, the committee requested the Center for the Study of Higher Education at the University of California, Berkeley to undertake a study of the performance of transfer students from junior colleges in four-year institutions and a survey of the various policies and practices affecting transfers. The study undertaken by Knoell and Medsker resulted in two technical reports: Factors Affecting Performance of Transfer
Students from Two- to Four-Year Colleges and Articulation between Two- and Four-Year Colleges, both published in 1964.

The Knoell-Medsker studies involved 7,243 junior college students who transferred in the fall of 1960 to 43 senior institutions in ten states which enroll a great proportion of transfer students: California, Florida, Georgia, Illinois, Kansas, Michigan, New York, Pennsylvania, Texas, and Washington. The senior institutions were chosen to represent a broad cross-section of different organization and operation in five categories of higher education institutions: the major state university, other state universities, state teacher colleges and universities, private colleges and universities, and a fifth category including Rochester and Georgia Institutes of Technology and Texas A&M University, representing technical institutions. The students came from 345 junior colleges, which were not selected by any particular process; however, 91 percent of them came from the ten states. The study of factors affecting performance of transfers presented the following findings under six headings:

1. **Characteristics**

   Transfers were "typically" male (71 percent), white, Protestant, 19 or 20 years of age, who pursued a college preparatory course in high school and ranked in the upper half of his graduating class—identical in these respects to the "typical" freshman. They deviated
in terms of a lower family educational, occupational and social standing. The population was far more homogeneous than anticipated.

*Those young transfers with the best high school records tended to transfer to major state universities; older, less successful students transferred to other state Universities; women favored teachers colleges.

*More than one-fourth indicated no support from parents; nearly 60 percent indicated less than half of support from parents; two-thirds used their own earnings; very few received loans or scholarships; although expenses increased and parent support dropped.

*They had earned grade point averages representing a wide spread; two-thirds averaged between B and C; 2.56 was the median.

2. Planning by Students about College Attendance and Career

*More than 80 percent intended to transfer when they entered a junior college; they tended to delay their choice of college until after a year or more.

*More than three-fourths were not sure of career when they entered junior college; more than one-third changed their minds before transfer.
• Junior colleges were chosen by nearly 40 percent as a "preferred" college without regard to academic and financial factors; 25 percent listed them as first preference; the reasons for choosing them were low cost, location, and opportunity for employment--few students gave "positive reasons" such as curriculum.

• Junior colleges are working to expand educational opportunities by providing the first two years of a baccalaureate program; the major flow was from the junior college to the major state university; fewer than ten percent "reverse transferred" because of academic dismissal; only about nine percent withdrew and then re-enrolled after reaching upper division; majors tended more toward the applied fields, with two-thirds of the women in teacher education and 40 percent of the men in engineering or business.

• Degree aspirations are high: two-thirds of men and one-half of women intend to pursue degrees beyond the baccalaureate.

3. Junior College Experience and Problems in Transferring

• In general, junior colleges were very highly rated, with the most favorable ratings given to the instructors and range of courses, and much
less favorable ratings given to counseling and advising.

*The biggest problem was the increased expenses and unrealistic estimates of expenses and earning capabilities away from home.

*More than half the students lost some credit in transferring, although only about 15 percent considered the loss serious; the major reason for loss was the limitation placed by the senior institutions on the amount which could be earned elsewhere; about 20 percent lost only the equivalent of one three-unit course; about 20 percent lost credit for poor or failing grades, including D grades. Less than ten percent lost the equivalent of a full semester.

*Almost 20 percent had problems with standards and/or requirements in their first year after transfer.

4. Performance in Four-Year Colleges

*There was a widespread tendency for first-term averages to drop below the cumulative junior college average. The drop averaged 0.3 grade point, but students generally did better with each successive semester. Attrition for the first and second semesters was about 11 percent in each, with a higher number of academic
dismissals the second.

45 percent who transferred after two years in junior college received a baccalaureate degree in about two years; 31 percent of the total group was still enrolled at the end of two years and presumably proceeding toward a degree; 19 percent had withdrawn with g.p.a.'s below C, including 11 percent who were dismissed on academic grounds.

Cumulative averages were generally lower than the junior college averages (2.34 compared to 2.56); averages rose from 2.27 the first term to 2.68 for the last term; withdrawals had poorer junior college averages.

5. Why the Variance?

Significant differences existed among the five different types of institutions in the junior college g.p.a., the averages at the four-year institutions, and the transfers' academic status two years after transferring; significant differences also existed between the ten states, with no clear-cut pattern of academic success of transfer students.

Institutional characteristics appeared to be the greatest factor in determining transfer performance; choice of majors were significantly related to on-time graduation and attrition.
rates, with education majors performing better in these respects than engineering majors regardless of the type of four-year college; sex differences were apparent at all levels, with women earning higher grades and graduating more on time, but also withdrawing with satisfactory grades more often.

*Individual differences contributed significantly to the variance: a good high school record tended to produce a good junior college record tended to produce a good four-year college record; while variability in characteristics was lower than anticipated, variability in performance was much higher; the time of decisions to attend college and to transfer colleges affected performance; non-academic characteristics were much less related.

6. Transfer Students' Performance vs. Native Students' Performance

*Transfers earned higher averages in the lower division, but native students earned higher averages in the upper divisions, with some exceptions; transfer students were somewhat less "traditional" in maintaining continuous attendance; total attrition in the upper division was three percent higher for transfers than for natives;
the average ability level of graduates who were freshmen in major universities is higher than that of transfers.

Transfer students are just as "efficient" in earning credit hours as natives, although they tend to withdraw and re-enroll more frequently.

Because of the large percentage of students who were still enrolled for a third year after transfer, the greater than anticipated variability in performance at the four-year colleges, and anticipated changes in admissions policies and articulation procedures, Knoell and Medsker refrained from making any substantiative conclusions until the completion of a follow-up study, Articulation Between Two-Year and Four-Year Colleges, in which they made further surveys of student enrollment and performance and institutional procedures and standards. It was the following conclusions that have determined the thinking and actions of many educators in the past decade.

• Junior colleges should be expanded and strengthened to make possible the goal of equality in higher education by educating those who otherwise would not go to college; public support must be raised to remove the stigma of junior colleges as refuges for "cannots" or "havenots."

• New programs in junior colleges to reflect changing technological needs and new programs
in senior institutions to accommodate the demand for higher education are needed; planners must be aware of the particular nature of different institutions and meld them together with some sort of curriculum master plan.

* Junior colleges should keep their dual-purpose identities by recognizing the student's right to be either in transfer or terminal occupational programs; occupational students should be allowed equal access to baccalaureate programs.

* Most junior college transfers could be successful in achieving their degree goals if they would select a senior institution and major field matched to their ability and prior achievement; such matching is more important at the transfer level than at the freshman level solely in terms of time.

* Some major universities admitted transfer students on the basis of barely acceptable grades, while becoming increasingly selective in freshman admissions.

* Transfer students with very similar grades will have different degrees of success in different four-year institutions; as institutional diversity will increase as a result of state-wide planning, each college must have data to find who will be
successful.

*The junior college C grade is almost meaningless as an indicator of potential success; grading and grade differentials are a major area for study and articulation.

*Junior colleges educate their "good" students more effectively than their "late bloomers." Junior colleges need to reassess their work with the weaker student.

*Because the average ability level of native students in major universities is higher than that of their junior college counterparts, coordinating agencies should strive to avoid siphoning off all the best students for four-year institutions, lest the quality of instruction in junior colleges be lessened.

*Because grade-point differentials are a reality of university life which transfer students must accept, they must be examined by all institutions, with the goal of a differential most transfers can afford.

*The false expectations of financial aid, which cause many transfers to withdraw when they are unrealizable, points to the need to re-examine the philosophies of financial aid.

*Counseling at all levels must be improved if
state-wide planning, institutional diversity and other goals are to be effective.

*Transfer students are generally overlooked in orientation programs, leading to an unnecessary waste of institutional and personal resources.

*More difficult courses in the second year at junior colleges would acclimate the transfer to the faster university pace.

*With proper articulation transfer students should not have to spend more time earning more credits than native students.

*Two- and four-year institutions should work together to reduce a higher than necessary attrition rate; academic factors could be reduced by better matching; financial and personal motivational problems by more aid and better counseling.

*Articulation machinery is inadequate to solve the problems brought on by an increasing number of transfers; inadequate articulation will hamper all colleges' rights to experiment and innovate.

Guidelines of the Joint Committee

The comprehensive research of Knoell and Medsker led to the revision of guidelines formulated by the Joint Committee on Junior and Senior Colleges. These guidelines
were revised again after a series of regional and state conferences and published in 1966 as *Guidelines for Improving Articulation between Junior and Senior Colleges*. These 27 guidelines are stated in general terms to serve as general principles and policies which can be applied locally to improve articulation, and are currently being used in Kansas, Maryland, North Dakota, Ohio, Oklahoma and Washington as a basic reference in now developing state-wide articulation policies.\(^1\) Willingham, in his 1972 study of compliance with the guidelines, provided a 16 point breakdown:\(^2\)

1. Transfers are typically admitted at the beginning of their last junior college term.
2. Priority, if space is limited, is given to applicants with highest probability of success.
3. New colleges are treated on the same basis as accredited ones.
4. Community colleges are informed about the performance of former students.
5. "Grandfather rights" in the event of curriculum changes are recognized for transfers from community colleges.


6. The associate degree guarantees upper division standing at time of transfer.
7. Credit granted on the basis of CLEP scores is transferable.
8. D grades are evaluated on the same basis as D grades of native students.
9. Admissions personnel visit primary feeder schools at least twice each year.
10. Personnel from feeder schools visit the campus at least once a year to interview former students.
11. There is an annual joint review of curriculum, and agreements are communicated to advisors, counselors, faculty, etc.
12. The institution has done formal studies of transfers during the past year (other than reporting grades to feeder schools).
13. Junior college personnel meet regularly on campus to discuss financial, counseling and academic services available to students after transfer.
14. Special orientation materials and programs have been developed for transfers.
15. Proportionately, as many transfers as freshmen receive financial aid.
16. Application procedures, deadlines or qualifications do not make it more difficult for transfers to receive aid.
Willingham-Findikyan Survey of Admissions Patterns

A 1967 survey undertaken by the College Entrance Examination Board surveyed 146 senior institutions to obtain national data on the movement of transfers to make estimates of the proportion of transfers that came from two- and four-year institutions, that applied to public and private institutions, and what factors and barriers might account for such flow. While the authors found that junior college transfers enjoyed a favorable acceptance rate into four-year institutions, suffered less credit loss than other transfers, and had good representation at all types of institutions, they also found a shortage of financial aid and space for transfers and some restrictive policies. While only one in ten public institutions held transfer applicants until the freshman pool was complete, some 60 percent of all institutions created potentially serious problems for transfers by not notifying them of financial aid or housing decisions until some time after the applicant had been accepted. One in four of all institutions, and one in eight of public institutions, required a restrictive deposit of more than $50 about two weeks after notice of acceptance—many times before financial aid and housing decisions had been made. Although there were certain signs of institutional inertia, the blame for these problems could not be dumped entirely upon the institutions' feet: many institutions reported that applications from transfers generally were received
later than applications from freshmen, and that applications generally tended to drift in throughout the summer and fall.

About one-half of the institutions, which were chosen to be representative of a national population of institutions, accepted D grades, and most used some sort of examination to determine grading differences and the abilities of marginal students—Knoell and Medsker had already pointed out examinations were not a very reliable indicator of student performance and thus should not be used to deny a marginal or untraditional student admission. Willingham and Findikyan noted a much larger credit loss than Knoell and Medsker, reasoning that because Knoell and Medsker focused on transfers who had received upper division status, their results were perhaps a bit low. The credit loss in this 1967 survey ranged, for those who lost one full term, from five percent in the West to an incredible 24 percent in the Northeast. But this latter result may be overstated: the investigator feels that the selection of institutions in the Northeast was not definitive in any manner and may have concentrated on those institutions with somewhat stricter (and more restrictive) transfer admissions policies. The same, incidentally, could be said for the Knoell-Medsker study, which did not include a single New England institution among its 43 institutions.

Willingham and Findikyan's survey did indicate that a
larger number of transfers were being aided than Haven and Smith's 1965 report\textsuperscript{1} indicated, but also that the gap between percent of transfers aided and percent of freshmen aided had widened. At the major universities which were receiving the greatest number of transfers, only one transfer in ten received any financial aid, despite Knoell and Medsker's demonstration of the financial dilemma faced by transfers: he cannot work without his grades dropping; he cannot devote enough time to studying without running out of financial support. The dilemma also has another dimension, the irony of which defies the good intentions of many senior institutions—the community college student has less financial resources than students in any other type of institution, yet he receives the least aid of any college of university population.\textsuperscript{2} All of the talk about new students, about enfranchising the academically and otherwise disadvantaged or different student, about providing equal access to higher education—all of it is meaningless and self-serving if adequate financial aid is denied. This point will be discussed further later in this chapter.

Willingham and Findikyan also pointed out that most of

\textsuperscript{1}Elizabeth W. Haven and Robert E. Smith, Financial Aid to College Students, 1963-64 (College Entrance Examination Board, Princeton, N.J., 1965).

\textsuperscript{2}Richard I. Ferrin, Student Budgets and Aid Awarded in Southwestern Colleges (CEEB, Princeton, 1971), demonstrates this in 153 institutions in the Southwest.
the rejections for dormitory and housing space were made by those public institutions which otherwise were most open to transfers. There was much variance between institutions in the number of vacancies and when they were available, leading the authors to recommend increased familiarity on the part of students and counselors about space at individual institutions.

Willingham's The No. 2 Access Problem

Published in July of 1972, this study originated as a literature search in the area of transfer articulation and then, because of the paucity of large-scale research on important transfer problems, included the results of an informal telephone survey to the 43 institutions of the Knoell-Medsker study on compliance with the "spirit" of the 1966 Guidelines.\(^1\) The literature search is comprehensive and identifies many works that form the background of any discussion of transfer students and their problems, and the implications of these problems for institutions.\(^2\) He notes that many studies have been done comparing transfer student performance with native student performance in individual schools--an area of investigation quite consistent with the guidelines and very useful to the particular institutions, while at the same time insufficient for state-wide planning. He argues

\(^1\)Willingham, The No. 2 Access Problem, p. 60.

\(^2\)ibid., pp. 6-7.
that there are three main reasons why transfers pose the second most important problem in access to higher education:
(1) its critical relationship to the organization of higher education, particularly in a hierarchical model which is designed to broaden educational opportunities; (2) its growing magnitude—perhaps one transfer for every three freshmen; (3) its unique problems.¹

Willingham organizes his literature search around ten specific problems. These ten problems cover the scope of the transfer problem as it pertains to the student, and form a basis for organizing other smaller studies. Following this review will be a review of Kintzer's new Middleman in Higher Education, the culmination of his previous studies of articulation policies in the fifty states. Kintzer looks at the activities in each state and thereby presents a model and a report of what is happening in transfer articulation on a more or less formal level to meet the transfer students' needs. The first of Willingham's ten problems is:

Curriculum articulation

If a major function of community colleges is to provide the first two years of baccalaureate programs it is self-evident that programs at the two levels must be articulated to avoid lost motion for students.²

Although Kintzer's new book seems to imply that states

¹Willingham, op. cit., p. 65.
²Ibid., p. 18.
are beginning to move substantially in this area, the national picture is still dim. Willingham cites two reasons for the necessity of increased planning in this area. First, the increasing numbers of transfers, selectivity of major universities, emerging multi-purpose state colleges, fanning out of students to many institutions, and variations in requirements, course sequences, and policies of receiving institutions makes the articulation problem increasingly complex. Secondly, the dual role of the community college, whereby it must satisfy the needs of both the baccalaureate-bound student and the occupational "new opportunity" student (who just might, as Knoell and Medsker pointed out, require a new baccalaureate degree to meet the changing technological needs of society and its workforce) leaves it with two commitments: its own unique educational responsibilities to the community and its responsibilities to prepare the transfer student.¹ For a community college, this dilemma can be considered the major problem in designing curriculum and coordinating educational opportunities with its community of students.² Yet, in regard to this study, there was no body, official or unofficial, in Massachusetts to look after the detailed agreements that such a dilemma requires to be

solved—in fact, there is little evidence that any such agreements existed except by informal agreements between particular institutions—until the State Transfer Articulation Committee was formed in 1971, and this committee has yet to formulate policies, recommended or otherwise, spending its efforts on establishing a demographic basis on which to base policies.

**Adequate Guidance at the Community College**

With many students now not willing to make a firm commitment to higher education immediately following high school, community colleges are finding that, because they receive many vocationally unsure students, a greater strain is being placed on their personal and vocational guidance resources. Adequate guidance at the junior college level is generally reported, by the students themselves and by the receiving institutions, as sadly lacking; yet many of the problems of transfers at senior institutions can be attributed to lack of information. Academic performance of transfers at senior institutions is reported back to junior colleges at less than half of the institutions surveyed, and only slightly more than a third of the senior institutions reported junior college personnel on campus to do follow-up studies to determine other problems.

**Adequate Orientation at the Senior College**

Knoell and Medsker reported that orientation programs were generally viewed by transfers as inadequate. Only four
in ten of the institutions surveyed by telephone by Willingham had separate materials and orientation procedures for transfers. Besides specific programs reported at individual colleges, which may or may not have general appeal, there is little else to report upon in this area.

**Diverse Admissions Procedures**

The procedural problems concerning transfer admissions are caused by wide variations in institutional and statewide attitudes and practices in such areas as academic standards, credit evaluation, space allotment and transfer recruitment. Wilson and Menacker have noted that the entire admissions procedure for transfers needs a long overdue overhaul if transfers are to escape being second-class citizens.\(^1\)

Decision dates for acceptance, financial aid, space and deposits generally show no concern for the real problems of transfer students. The problem is compounded when transfers cross state lines: California, for example, requires higher grade averages for out-of-state transfer applicants,\(^2\) while

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\(^3\)California State Colleges, Office of the Chancellor, Division of Institutional Research, *Proposed Admissions Standard for Upper Division Transfer Students Legally Residents of Other States* (Monograph No. 4, Los Angeles, 1969).
nearly all states require non-resident tuition for at least a year.¹

**Diverse Academic Standards**

The problem here is not that colleges and universities have differing standards, and thereby students of different ability levels—as Willingham states, that is "a fitting reflection of institutional purpose and role."² The problem is rather one of establishing procedures that make these diverse standards manageable—by studying transfer performance after transfer is the most common method, and another is by examination. A study like the Middle States Association's *The Junior College Transfer*,³ a compilation of admissions policies and procedures of over 200 institutions in the middle states, is helpful not only with the preceding problem, but gives the prospective transfer at least some idea of what is available to him and expected from him at the institutions.

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²Willingham, *No. 2 Access Problem*, p. 34.

Credit

Willingham cites credit evaluation as the most persistent question, based on the Knoell-Medsker data, the Willingham-Findikyan data and other data from smaller studies. The problems here include: acceptance of D grades, which has risen from about fifty percent to about eighty percent of the institutions surveyed;¹ the granting of credit when a student is accepted—Illinois found that 40 percent of its institutions were not able to tell the student how many hours he needed to complete his program by the middle of the student's first term;² the granting of credit by AP or CLEP examination; the evaluation of pass-fail grades; credit from non-accredited schools; credit for vocational courses; the recognition of "grandfather rights" when a senior institution changes graduation requirements—nearly half of the institutions surveyed did not recognize these.

Access/Retention

While Willingham notes a substantial amount of data pertaining to retention of transfers in individual institutions, there is almost no data concerned with who enters and who stays in junior colleges, which students transfer

¹Willingham, p. 41.

²Robert G. Darnes, "Articulation of Credits between Junior and Senior Colleges," in Roy E. McAuley (Ed.), The Transfer of Credits from Junior Colleges to Senior Colleges (Report of 5th Annual Missouri Valley Conference on Co-operation between Junior and Senior Colleges, Central Missouri State College, April 10-11, 1970).
where, whether minority representation is equitable, and so forth. Whereas minority students make up eight percent of junior college enrollment and only four percent of all higher education enrollment, and whereas half of all black freshmen are enrolled in public two-year institutions,\(^1\) indicating that junior colleges have succeeded in broadening educational opportunities, Willingham guesses that minority students are "almost certainly under-represented among transfer students as compared with the proportion of minority freshmen in two-year colleges."\(^2\) He also notes that the reverse transfer process, which in Illinois accounts for more transfers into the junior colleges than transfer out of them,\(^3\) has been totally ignored.

**Financial Aid**

Some of the problems concerning financial aid have been discussed in earlier sections. Admissions officers seem to be aware of the discrepancies reported in Knoell-Medsker and Willingham-Findikyan, and about two institutions in five in this survey indicated that proportionately as many transfers were aided as freshmen, but the data is clearly insufficient.

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\(^2\)Willingham, p. 49.

to determine the full scope of this major problem. There are some innovations in this area, notably the College Board's Upper Division Scholarship Program and the Bush Foundation's Opportunity Grants Program in Minnesota, but the scope of these programs is too small to imply much help on a large level. Federal legislation in this area is still unsure.

Space

Again, institutional and annual variations and the lack of complete data combine to create a major problem—excluding perhaps 25,000 qualified applicants in 1966 because of space limitations. Regional agencies such as WICHE in the west and the Middle State Association produce useful reports on vacancies. Stabilizing enrollments have generally relieved the nationwide press for space, but individual institutions still find unequal demands on an annual basis. If a state is to commit itself to a public junior college system, then it must examine its obligation to provide spaces at public four-year institutions which are, for many junior college graduates, the only feasible continuance toward the baccalaureate degree. The emergence of upper division colleges and universities, with no freshmen or sophomore levels, would make articulation in this area much more flexible.

Articulation Procedures

The most comprehensive treatment of articulation policies is contained in Kintzer's Middleman, and a report on that follows this section. Willingham notes that the 1966
Guidelines contain several suggestions related to contact between junior and senior institutions and research into student performance and factors that affect performance. Tables I and II summarize the results of Willingham's telephone survey.

Kintzer's Middleman in Higher Education

Kintzer's study, published in 1973, is a more up-to-date and complete version of his 1970 Pilot Study of Articulation in 50 States. Kintzer reviews the articulation policies and procedures across the nation, presenting as models those established systems and reviewing developments in systems just now being formulated. He groups articulation efforts in three categories: formal and legal; state system; and voluntary agreement between institutions. The formal agreements in Florida (1965), Georgia (1968) and Texas (1968), and the legal agreement in Illinois (1972) began with comprehensive involvement on all levels under a state body as task forces. The state system agreements in such states as North Carolina, Oklahoma, Oregon, Virginia, Hawaii, Kentucky, Nevada and others, involved all levels, but were generally dependent upon either a government agency such as state regents or state boards of higher education, or institutional bodies where they are charged with governing the state systems, for policy development and implementation. Kintzer notes that these systems tend to be relatively
Table 1. Percentage of Four-Year Institutions Adhering to Selected Articulation Guidelines*

<table>
<thead>
<tr>
<th>Admissions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transfers are typically admitted by the beginning of their last term in the junior college. (I.4c)</td>
<td>35%</td>
</tr>
<tr>
<td>2. If space for transfers who have completed two years of junior college is limited, priority goes to applicants with the highest probability of success (I.1b)</td>
<td>37%</td>
</tr>
<tr>
<td>3. Transfer applicants from new colleges within the state are admitted on the same bases as those from accredited institutions. (I.5)</td>
<td>63%</td>
</tr>
<tr>
<td>4. Each year community colleges are provided information on the performance of their former students. (I.1c)</td>
<td>49%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Transfer students have the option of satisfying graduation requirements in effect at the time they entered the community college as freshmen (III.1a)</td>
<td>55%</td>
</tr>
<tr>
<td>6. Satisfactory completion of an associate degree transfer program guarantees upper division standing at the time of transfer. (II.1c)</td>
<td>51%</td>
</tr>
<tr>
<td>7. Credit granted on the basis of CLEP scores is transferable. (II.4c)</td>
<td>63%</td>
</tr>
<tr>
<td>8. D grades earned by transfer students are evaluated on the same basis as grades earned by native students. (II.3)</td>
<td>83%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Articulation and Communication</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. The admission staff visits the primary feeder junior colleges at least twice each year. (V.5d, 6a, 7a)</td>
<td>42%</td>
</tr>
<tr>
<td>10. Personnel from the primary feeder colleges visit the campus at least once a year to talk with former students. (V.6b)</td>
<td>35%</td>
</tr>
<tr>
<td>11. There is an annual joint review of what courses are accepted in satisfaction of specific requirements, and agreements are communicated in writing to advisors, counselors, faculty, etc. (II.5a, 5c)</td>
<td>50%</td>
</tr>
</tbody>
</table>
Table 1, continued

12. The institution has done formal studies of transfer students during the past year (other than reporting grades to junior colleges). (V.7c) 42%

Guidance and Financial Aid

13. Junior college personnel meet regularly on the campus to discuss services available to students after transfer (financial aid, guidance, remedial programs, etc.). (IV.1f) 60%

14. Special materials and procedures have been developed for the orientation of transfers (separate from freshmen). (IV.3) 42%

15. Proportionately, as many transfer students as freshmen receive financial aid. (IV.4) 42%

16. Application procedures, deadlines, or qualifications do not make it more difficult for transfers to receive aid. (IV.4) 66%

* Based upon 43 institutions that participated in the Knoell-Medsker study.
Table 2. Percent of Selected Guidelines Followed by Each of 43 Institutions Sorted by Type.

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>0-24%</th>
<th>25-49%</th>
<th>50-74%</th>
<th>75-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major State Universities</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Teachers Colleges</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Other State Institutions</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Private/Technical Institutions</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>All Institutions</td>
<td>3</td>
<td>15</td>
<td>17</td>
<td>8</td>
</tr>
</tbody>
</table>
inflexible. The voluntary agreements worked out by California and Michigan are based more upon cooperation and negotiation between institutions than upon legislative or governmental edict. These agreements depend upon liaison committees, either temporary or permanent, which seek to identify problems and recommend policies and procedures. Implementing recommendations and financing the committees are the greatest weaknesses of this model, although, as Kintzer points out, articulation is just as much an attitude as a procedure, and the voluntary agreements tend to insure a spirit of cooperation.

These three models are reported in detail; models in other states are variations or duplicates of them. One slight inaccuracy that bears upon this report is Kintzer's report that the University of Massachusetts accepts associate degree graduates without question: while this may be true in a majority of cases, it is not true across the board.

With the exception of the above mentioned studies, material on articulation is scarce and sketchy. Each investigator in the studies described all conclude that the data relating to articulation is inadequate in view of the increasing number of transfer students in the post-secondary institutions.

Research on all aspects of the transfer phenomenon is essential if articulation agreements are to become successful.
In addition there must be closer institutional relationships between and among all staff levels if agreements are to be mutually acceptable.

It is with the view of adding to the scarce and spotty body of data that this study was undertaken.
CHAPTER III

PROCEDURES USED IN CONDUCTING THE STUDY

The rapid growth of the community and junior colleges has caused a parallel growth in the number of students who transfer to institutions awarding baccalaureate degrees. In addition, four-year college students moving from one campus to another at the undergraduate level have added to the volume of movement between undergraduate institutions. This has created a serious educational problem, a problem of transfer students in higher education which has been significantly under-researched. This study collected demographic data as well as data relating to attitudes and needs of students in the areas of curriculum, financial aid, housing, and counseling.

Among the questions investigated in this study are the following: who is successful in being accepted for transfer admission? What are their characteristics—age, sex, marital status, veteran status, residence, previous academic program, previous academic record, etc.? What are their curriculum preferences? Where do they come from? Do they need vocational counseling, assistance with housing, financial aid? Will they have to work to finance their education?

These are the questions the answers to which would seem to inform efforts to accommodate these transfer students.
Procedures Used in Conducting the Study: The questionnaire was designed and field tested with 25 students at the University of Massachusetts at Amherst. All four-year colleges, both public and private, in the state of Massachusetts were invited to participate in the study by having their students who were accepted for admission as transfer students complete the questionnaire. Thirty-eight public and private institutions participated.

Analyses of the student responses were run for the total population, for students who were accepted for admission but withdrew, for students who enrolled, for all male students, for all female students, for students applying to publicly supported institutions, for students applying to privately supported institutions.

Summaries of the responses by students were sent to each participating college describing the population for that particular college.

Administering the Data Collection Instrument: The questionnaire, found in Appendix A, was sent to administrators at 25 private and 13 public four-year colleges in the state of Massachusetts. All public four-year colleges except Massachusetts College of Art and Massachusetts Maritime Academy, which have very few transfer students, participated in the study. A list of participating colleges is found in Appendix B. With the supply of questionnaires went a
cover letter to the administering official with instructions for having the documents completed. Telephone calls were made to each administering official to answer questions and clarify administrative procedures.

Ten thousand questionnaires were distributed to the colleges; 7,182 questionnaires were completed and processed. Considering there were 10,000 spaces for transfers in the 54 four-year colleges in the state (these figures were obtained from another study done by STAC during the 1971-72 academic year), a study reporting on more than 7,100 students would appear to be a substantial sample.

**Design of the Study:** This study was conducted as a continuation of an attempt of the State Transfer Articulation Committee to provide a demographic and attitudinal information base on which educational policies, particularly those concerning transfer students, can be based. It follows a STAC report based on information attained from 15,171 students in 26 public and private two-year colleges in Massachusetts during the spring semester of 1972 and continuing references to that report (STAC Report) will be made throughout this study. The contrasts and comparisons with the STAC report will be used to point out some salient problems in transfer articulation. That report was based on a questionnaire which was pretested on 25 University of Massachusetts/Amherst students for clarity and ease of
administration; this study was pretested in the same manner, and some of the questions on it were determined by the results of the two-year report.

All four-year colleges, both public and private, in the State of Massachusetts were invited to participate in the study by having their students who were accepted for admission as transfer students complete the questionnaire. Thirty-eight public and private institutions participated, and a total of 7,182 questionnaires were completed and processed. Considering that there were 10,100 spaces for transfers in the 54 four-year colleges in the state, as reported by the STAC two-year report, the study population represents a substantial sample.

**Limitations of the Study:** Clearly this study represents a substantial proportion of the students who were accepted as transfer applicants at four-year colleges in Massachusetts for September of 1972, but an unknown number of students, probably in excess of 3,000, either did not get the questionnaire or did not return it. Because all public four-year colleges except the Massachusetts College of Art and the Massachusetts Maritime Academy, which receive very few transfer students, participated in the study, one is led to assume that the majority of those 3,000 transfers were received into private institutions. While this factor probably has little or no bearing in terms
of analyzing data on a percentage basis within the sub-
category concerning private institutions, it could have sig-
nificant bearing on the total population, especially where
there are differences between public and private institutions.
The implications of this factor are unclear at this time.

Secondly, the responses on the questionnaire are all
student reported and no data has been verified. Some
questions were not answered by every student, so that
responses to particular questions are somewhat uneven.
Additionally, some institutions administered the questionnaire
to students at the time they were offered admission as transfer students; other institutions waited until enrolling
transfers reached campus in September before administering
the questionnaire. This latter group clearly did not include
students who were accepted but withdrew, thus possibly ex-
plaining the low number of students who were accepted but
withdrew (about 700 students).

In addition, certain questions appear, through incon-
sistencies in the number of responses, to have been mis-
understood or to have artificially limited the number of
responses incorrectly. These will be pointed out where they
occur, and are relatively minor in nature. This study
sampled students in Massachusetts institutions. Therefore,
the results are not generalizable to any other state.
CHAPTER IV

ANALYSIS OF THE DATA

The findings of this study which follow represent the second section of a three-part investigation of transfer articulation suggested by the State Transfer Articulation Committee. The first segment sampled over 15,000 students at 26 two-year colleges across the Commonwealth of Massachusetts with a questionnaire very similar to the questionnaire used in this study. The results of the first study were published in August 1972, entitled Study of Massachusetts Two-Year College Students: Implications for Massachusetts Four-Year Colleges and Universities. This second segment, A Summary Profile of Transfer Students at Selected Four-Year Educational Institutions in Massachusetts, is concerned with those students who were accepted at four-year colleges. The third study is underway which investigates not only those who were accepted for admission as transfers, but all students who applied or were accepted for transfer admissions.

Questions common to the first two studies were analyzed and much of this investigation compares findings with the "two-year study."

Respondents: Seven thousand, one hundred, eighty-two (7,182) students, 3,619 from publicly supported institutions, 3,563 from private institutions, are included in this study.
Approximately 50 percent of the respondents were from private institutions, a pattern quite similar to the enrollment of freshmen students in private institutions in the state. Of the 7,182 students answering this questionnaire, 6,488 enrolled. With such a high percentage of the total population being enrolled students, and with the characteristics of the enrolled students being so similar to the characteristics of the total population, this report deals only with the total population, except where specific reference may be made to other groups.

**Description of the Population**

**Total Sample:** 7,182 at 38 (13 + 25) Public and Private Four-Year Colleges

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Private</td>
<td>3,563</td>
</tr>
<tr>
<td>Total Public</td>
<td>3,619</td>
</tr>
<tr>
<td>Total Male</td>
<td>3,694</td>
</tr>
<tr>
<td>Total Female</td>
<td>3,488</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,182</strong></td>
</tr>
</tbody>
</table>

**Age:** This study found 82 percent of the respondents under the age of 24, whereas the two-year study had 87 percent of the respondents under the age of 24, making the population in this study a slightly older group. Interestingly, 75 percent of the respondents from public colleges were under 24 years of age, making the public group older, on the average, than the private group. Obviously, the four-year study would
expect to have a slightly older population since generally the students seeking transfer admission have completed two or more years of college, thus making them about two years older than students presently enrolled in two-year colleges.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.68% under 20</td>
<td>26.26</td>
<td>47.18</td>
<td>44.50</td>
<td>29.26</td>
</tr>
<tr>
<td>45.22% 20-23</td>
<td>48.68</td>
<td>41.74</td>
<td>43.83</td>
<td>46.54</td>
</tr>
<tr>
<td>81.90% under 24</td>
<td>74.94</td>
<td>88.92</td>
<td>88.33</td>
<td>75.80</td>
</tr>
<tr>
<td>14.32% 24-29</td>
<td>19.89</td>
<td>8.71</td>
<td>6.68</td>
<td>21.56</td>
</tr>
<tr>
<td>3.78% or over</td>
<td>5.18</td>
<td>2.38</td>
<td>4.98</td>
<td>2.64</td>
</tr>
</tbody>
</table>

**Sex:** The samples in the two and four-year studies are very similar in their sex distribution. The four-year study had 51 percent male, 49 percent female, whereas the two-year study had 52 percent male, and 48 percent female.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,694 Male</td>
<td>2,039</td>
<td>1,655</td>
</tr>
<tr>
<td>3,488 Female</td>
<td>1,580</td>
<td>1,908</td>
</tr>
</tbody>
</table>

**Marital Status:** Thirteen percent of the students in the four-year study were married whereas 10 percent in the two-year study were married. This once again reflects the somewhat older population in the four-year study.
Residence: The two-year study, reflecting a high number of community college students in the study, had 85 percent Massachusetts residence whereas the four-year study found only 69 percent of the students from Massachusetts. Publicly supported institutions clearly have a great preponderance of Massachusetts residents—98 percent in the four-year study and 97 percent in the two-year study. On the other hand, the private institutions had 45 percent Massachusetts residents in the four-year study and 61 percent Massachusetts residents in the two-year study.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>69.07 Massachusetts</td>
<td>63.77</td>
<td>74.12</td>
</tr>
<tr>
<td>2.43 Foreign</td>
<td>1.74</td>
<td>3.06</td>
</tr>
<tr>
<td>28.50 Out-of-State</td>
<td>34.49</td>
<td>23.82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Colleges</th>
<th>Private Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>93.40 Massachusetts</td>
<td>44.58 Massachusetts</td>
</tr>
<tr>
<td>1.68 Foreign</td>
<td>3.18 Foreign</td>
</tr>
<tr>
<td>4.92 Out-of-State</td>
<td>52.24 Out-of-State</td>
</tr>
</tbody>
</table>

Veteran Status: Nearly the same percentage of respondents were veterans in the two studies—14 percent in the two-year study and 16 percent in the four-year study. The slightly higher percentage in the four-year study may reflect the "veterans preference" policy at the University of Massachusetts at Amherst.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.88% are veterans</td>
<td>1.01</td>
<td>27.43</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public</th>
<th>21.37% are veterans</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Private</th>
<th>10.04% are veterans</th>
</tr>
</thead>
</table>
Activity Immediately After High School: The four-year study found more students enrolling in college immediately after high-school—82 percent as against 75 percent in the two-year study, whereas the two-year study had more students who went to work or into the military immediately after high-school—22 percent as against 15 percent in the four-year study.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>82.01% Attended College</td>
<td>76.83</td>
<td>87.25</td>
<td>87.49</td>
<td>76.80</td>
</tr>
<tr>
<td>9.94% Worked</td>
<td>12.57</td>
<td>7.28</td>
<td>8.27</td>
<td>11.53</td>
</tr>
<tr>
<td>.53% Married</td>
<td>.79</td>
<td>.26</td>
<td>.84</td>
<td>.22</td>
</tr>
<tr>
<td>4.81% Armed Services</td>
<td>6.67</td>
<td>2.94</td>
<td>.29</td>
<td>9.12</td>
</tr>
<tr>
<td>2.71% Other</td>
<td>3.14</td>
<td>2.28</td>
<td>3.11</td>
<td>2.33</td>
</tr>
</tbody>
</table>

Educational Aspirations: While somewhat similar percentages have a bachelor's degree as their goal (41 percent in the two-year study and 47 percent in the four-year study), a marked difference appears with respect to masters and doctorate study—25 percent of the two-year study population aimed for a masters or a doctorate whereas 49 percent of the four-year study aspired to a similar level.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>47.07 Bachelor's</td>
<td>50.39</td>
<td>43.73</td>
<td>51.10</td>
<td>43.20</td>
</tr>
<tr>
<td>37.15 Master's</td>
<td>36.56</td>
<td>37.74</td>
<td>37.52</td>
<td>36.80</td>
</tr>
<tr>
<td>12.27 Doctoral</td>
<td>10.26</td>
<td>14.28</td>
<td>8.86</td>
<td>15.54</td>
</tr>
<tr>
<td>3.51 Other</td>
<td>2.78</td>
<td>4.25</td>
<td>2.52</td>
<td>4.47</td>
</tr>
</tbody>
</table>
Financial Aid: The two-year study had 44 percent of the students who said they would need financial aid if they transferred to a public college and 63 percent if to a private college. The four-year study found 74 percent of the students did not apply for financial aid for the first semester (the percentages were roughly the same for public and private colleges). The large percentage (44 percent to 63 percent) in the two-year study who said they would need aid offers sharp contrast with the 27 percent who actually did apply for aid as recorded in the four-year study. It is interesting to note that 74 percent of the respondents in the two-year study did not apply for aid for the semester in which they answered the questionnaire. These data suggest the need for more counseling and more information about financial aid opportunities and procedures, both in two-year colleges and in four-year colleges receiving transfer students. It may also reflect student fear of rejection for admission as a transfer student on the basis of need for financial aid. These data do not bear on that question.

In the four-year study, 18 percent of the respondents had not heard about their application for aid. This is about two-thirds of those who did apply for financial aid. When one considers that these are people who had been accepted for transfer admission, the data highlight the need for quicker decisions on financial aid for transfer applicants. Only 9 percent of the accepted transfer applicants responding
to this questionnaire knew they definitely had financial aid at the time they completed the questionnaire after they had received an offer of admission.

<table>
<thead>
<tr>
<th>Financial Aid First Semester</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.45% Did not apply</td>
<td>73.87</td>
<td>72.69</td>
<td>72.52</td>
<td>74.01</td>
</tr>
<tr>
<td>2.52% Applied, none received</td>
<td>2.07</td>
<td>3.43</td>
<td>2.89</td>
<td>2.61</td>
</tr>
<tr>
<td>2.66% Received Scholarships</td>
<td>3.41</td>
<td>1.79</td>
<td>2.50</td>
<td>2.70</td>
</tr>
<tr>
<td>2.18% Received Loans</td>
<td>1.57</td>
<td>2.88</td>
<td>2.06</td>
<td>2.33</td>
</tr>
<tr>
<td>1.51% Received Combination</td>
<td>0.92</td>
<td>2.10</td>
<td>1.77</td>
<td>1.26</td>
</tr>
<tr>
<td>17.69% Have not heard yet</td>
<td>18.22</td>
<td>17.10</td>
<td>18.26</td>
<td>17.08</td>
</tr>
</tbody>
</table>

**Expect to Work Upon Transfer:** In the four-year study, 52 percent of the students said they expect to work upon transfer whereas 64 percent of the students in the two-year study indicated an expectation to work. This may mean that as the prospect of enrollment as a transfer student becomes more immediate, a percentage of students planning to work drops. No definitive answer is possible from these data:

<table>
<thead>
<tr>
<th>Work Plans First Semester</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.77% On Campus</td>
<td>11.75</td>
<td>14.64</td>
<td>15.32</td>
<td>11.16</td>
</tr>
<tr>
<td>39.63% Off Campus</td>
<td>45.18</td>
<td>32.41</td>
<td>31.40</td>
<td>45.89</td>
</tr>
<tr>
<td>47.61% Not Working</td>
<td>43.07</td>
<td>52.95</td>
<td>53.28</td>
<td>42.95</td>
</tr>
</tbody>
</table>


Plans for Financing Study After Transfer: Family support and work appear to be major sources of expected support for students accepted for transfer to four-year colleges. Financial aid, either from a college or from an outside source, and savings, are not expected to be of much help.

Need for Vocational Counseling and Career Choice Information: 35 percent of the students in the two-year college study and 30 percent of the students in the four-year study indicated a need for vocational counseling or career choice information. This trend is expected; fewer students need counseling or information at the transfer level. A high percentage, 30 percent, still are unclear about their career choice and 37 percent were not sure about their vocational career. Clearly these students need assistance in this area.

<table>
<thead>
<tr>
<th>Sure of Vocational Career?</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>62.64% Yes</td>
<td>64.67</td>
<td>59.55</td>
<td>63.47</td>
<td>60.82</td>
</tr>
<tr>
<td>37.36% No</td>
<td>35.33</td>
<td>40.45</td>
<td>36.53</td>
<td>39.18</td>
</tr>
<tr>
<td>Need Career Choice Information Now?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.02% Yes</td>
<td>31.14</td>
<td>29.46</td>
<td>29.69</td>
<td>30.88</td>
</tr>
<tr>
<td>69.98% No</td>
<td>68.86</td>
<td>70.54</td>
<td>70.31</td>
<td>69.12</td>
</tr>
</tbody>
</table>

Intended Major: The four-year study represents a refinement in the data reported in the two-year study since the present study reports on those who were actually accepted for transfer whereas the two-year study summarized all two-year
college students and, as a subgroup, those who intended to transfer. Where the two-year study found no clear cut preference and social sciences replacing business administration in first place, the order of preference follows: Social Sciences 8 percent, Business Administration 6 percent, Elementary Education 5 percent, General Liberal Arts 3 percent, Science 3 percent, Humanities 3 percent, Engineering 2 percent, Special Education 2 percent, Art 2 percent, Secondary Education 1 percent, Nursing 1 percent, Physical Education 1 percent, all other fields not listed are less than 1 percent. (See Page 62.)

This study had hoped to develop some information on trends in preferences for major fields but analysis of the data suggests this design was not useful for that purpose. Tracking individual students over a period of time is necessary to develop such information and this study took only one reading in one point in time.

The following topics were not covered in the two-year study, but the findings should be of interest to readers of the present work.

Expected Entrance: 61 percent of the students expected to enroll as juniors, 32 percent as sophomores. Comparison of the public and private subgroups shows 39 percent of the students accepted at private colleges expect to enroll as sophomores whereas 25 percent of the students accepted at
public colleges expect to enroll as sophomores. This reflects the resistance of public four-year colleges to accepting freshmen or sophomores—students generally must have 54 credits before being accepted as a transfer student at a public four-year college in Massachusetts. Nonetheless, 32 percent of the students accepted at the public colleges say they expect to enter as freshmen or sophomores.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.35% Freshmen</td>
<td>6.70</td>
<td>4.00</td>
<td>3.74</td>
<td>6.89</td>
</tr>
<tr>
<td>31.62% Sophomores</td>
<td>24.55</td>
<td>38.73</td>
<td>30.94</td>
<td>32.26</td>
</tr>
<tr>
<td>60.63% Juniors</td>
<td>66.47</td>
<td>54.77</td>
<td>62.24</td>
<td>59.11</td>
</tr>
<tr>
<td>2.40% Seniors</td>
<td>2.29</td>
<td>2.51</td>
<td>3.09</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Poor Academic Standing: 11 percent of the respondents in this study said they had been on scholastic probation or had been dismissed for academic reasons. Interestingly, 94 percent of the women in the study had not been in academic difficulty whereas 84 percent of the men had not been in academic trouble. This difference suggests, but does not confirm discrimination against women in transfer admission.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.76% No (Poor Academic Standing)</td>
<td>86.43</td>
<td>91.10</td>
<td>93.78</td>
<td>83.94</td>
</tr>
<tr>
<td>7.78% Scholastic Probation</td>
<td>8.88</td>
<td>6.68</td>
<td>5.10</td>
<td>10.35</td>
</tr>
<tr>
<td>3.46% Scholastic Dismissal</td>
<td>4.70</td>
<td>2.23</td>
<td>1.12</td>
<td>5.71</td>
</tr>
<tr>
<td>General</td>
<td>(8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td>(3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Undergraduate</th>
<th>2.04</th>
<th>2.13</th>
<th>2.15</th>
<th>2.25</th>
<th>2.22</th>
<th>2.29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>3.63</td>
<td>3.63</td>
<td>3.44</td>
<td>3.33</td>
<td>3.33</td>
<td>3.33</td>
</tr>
<tr>
<td>Social Science</td>
<td>6.34</td>
<td>6.34</td>
<td>6.34</td>
<td>6.34</td>
<td>6.34</td>
<td>6.34</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
</tr>
<tr>
<td>Science</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
</tr>
<tr>
<td>Physical Education</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Nursing</td>
<td>2.95</td>
<td>2.95</td>
<td>2.95</td>
<td>2.95</td>
<td>2.95</td>
<td>2.95</td>
</tr>
<tr>
<td>Music</td>
<td>7.93</td>
<td>7.93</td>
<td>7.93</td>
<td>7.93</td>
<td>7.93</td>
<td>7.93</td>
</tr>
<tr>
<td>Mathematics</td>
<td>8.83</td>
<td>8.83</td>
<td>8.83</td>
<td>8.83</td>
<td>8.83</td>
<td>8.83</td>
</tr>
<tr>
<td>General Liberal Arts</td>
<td>3.03</td>
<td>3.03</td>
<td>3.03</td>
<td>3.03</td>
<td>3.03</td>
<td>3.03</td>
</tr>
<tr>
<td>Humanities</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Health Services</td>
<td>2.16</td>
<td>2.16</td>
<td>2.16</td>
<td>2.16</td>
<td>2.16</td>
<td>2.16</td>
</tr>
<tr>
<td>Engineering</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>4.06</td>
<td>4.06</td>
<td>4.06</td>
<td>4.06</td>
<td>4.06</td>
<td>4.06</td>
</tr>
<tr>
<td>Drama</td>
<td>3.57</td>
<td>3.57</td>
<td>3.57</td>
<td>3.57</td>
<td>3.57</td>
<td>3.57</td>
</tr>
<tr>
<td>Communications</td>
<td>3.34</td>
<td>3.34</td>
<td>3.34</td>
<td>3.34</td>
<td>3.34</td>
<td>3.34</td>
</tr>
<tr>
<td>Business Administration</td>
<td>5.67</td>
<td>5.67</td>
<td>5.67</td>
<td>5.67</td>
<td>5.67</td>
<td>5.67</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1.15</td>
<td>1.15</td>
<td>1.15</td>
<td>1.15</td>
<td>1.15</td>
<td>1.15</td>
</tr>
<tr>
<td>Total</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Private Female Male</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study Major</th>
<th>2-Year Academic Program 4-Year</th>
<th>Study Major</th>
<th>2-Year Academic Program 4-Year</th>
</tr>
</thead>
</table>

Table of Previous and Intended Majors
Sending Institutions: 45 percent of the respondents came from two-year colleges, 55 percent from four-year colleges, these data reflecting a surprisingly high percentage of transfer from four-year to other four-year colleges. In order of importance, two-year publicly supported institutions sent the most students in this sample, 33 percent, with four-year private institutions and four-year public institutions each sending about one-quarter of the respondents. Public institutions sent 57 percent of the students, private institutions 43 percent, even though they enrolled about equally in public and private institutions.

<table>
<thead>
<tr>
<th>Transferred From</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.23% Public Two-Year</td>
<td>45.79</td>
<td>20.61</td>
<td>24.63</td>
<td>41.38</td>
</tr>
<tr>
<td>24.11% Public Four-Year</td>
<td>25.13</td>
<td>23.08</td>
<td>26.51</td>
<td>21.84</td>
</tr>
<tr>
<td>11.12% Private Two-Year</td>
<td>8.53</td>
<td>13.73</td>
<td>12.64</td>
<td>9.69</td>
</tr>
<tr>
<td>24.82% Private Four-Year</td>
<td>15.14</td>
<td>34.25</td>
<td>28.33</td>
<td>21.50</td>
</tr>
<tr>
<td>.79% Church-Affiliated Two-Year</td>
<td></td>
<td>.52</td>
<td>.90</td>
<td>.68</td>
</tr>
<tr>
<td>5.93% Church-Affiliated Four-Year</td>
<td></td>
<td>4.59</td>
<td>7.26</td>
<td>6.99</td>
</tr>
</tbody>
</table>

Previous Cumulative Average: Slightly less than two percent of the students in this study have less than a 2.0 previous cumulative average; nine percent had less than a 2.5. This suggests strong resistance to accepting transfer students with a cumulative average below 2.5.

Once again, sex discrimination is suggested: 48 percent
of the females had a 3.0 or higher previous cumulative average whereas only 38 percent of the male students had a 3.0 or higher.

<table>
<thead>
<tr>
<th>Totals</th>
<th>Public</th>
<th>Private</th>
<th>All Female</th>
<th>All Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>.21%</td>
<td>1.0</td>
<td>.34</td>
<td>.08</td>
<td>.38</td>
</tr>
<tr>
<td>1.37%</td>
<td>1.5</td>
<td>1.90</td>
<td>.84</td>
<td>2.29</td>
</tr>
<tr>
<td>6.50%</td>
<td>2.0</td>
<td>7.29</td>
<td>5.72</td>
<td>9.06</td>
</tr>
<tr>
<td>23.44%</td>
<td>2.5</td>
<td>24.84</td>
<td>22.04</td>
<td>26.08</td>
</tr>
<tr>
<td>23.92%</td>
<td>3.0</td>
<td>22.00</td>
<td>25.82</td>
<td>22.37</td>
</tr>
<tr>
<td>16.73%</td>
<td>3.5</td>
<td>14.20</td>
<td>19.23</td>
<td>13.89</td>
</tr>
<tr>
<td>1.88%</td>
<td>4.0</td>
<td>1.39</td>
<td>2.36</td>
<td>1.58</td>
</tr>
</tbody>
</table>

Total College Experience: A substantial majority, 57 percent, had two years or less of previous college experience. 23 percent had one year of less, making a total of 80 percent with two years or less of college experience.
Living Preference: Living on-campus, commuting to campus, and living off-campus each drew about equal response in terms of living preference for the sample study.

Planned Living
(by number instead of percent)

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Campus:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,404 Residence Halls</td>
<td>928</td>
<td>1,476</td>
<td>1,420</td>
<td>984</td>
</tr>
<tr>
<td>42 Sorority/Fraternity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Off Campus:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,599 Commuting from Home</td>
<td>1,646</td>
<td>953</td>
<td>1,081</td>
<td>1,518</td>
</tr>
<tr>
<td>2,571 Commuting from Off-Campus</td>
<td>918*</td>
<td>1,082</td>
<td>1,489</td>
<td>1,082</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,524</td>
<td>3,521</td>
<td>4,006</td>
<td>3,610</td>
</tr>
</tbody>
</table>

Prefer to:

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.92% Live on Campus</td>
<td>27.99</td>
<td>44.43</td>
<td>44.17</td>
<td>28.57</td>
</tr>
<tr>
<td>33.89% Commute</td>
<td>41.74</td>
<td>23.80</td>
<td>27.41</td>
<td>37.93</td>
</tr>
<tr>
<td>31.19% Live off Campus</td>
<td>30.26</td>
<td>31.77</td>
<td>28.42</td>
<td>33.50</td>
</tr>
</tbody>
</table>

*Some respondents omitted this question

First Choice College: 88 percent of the respondents said they had been accepted by their first choice college. Among those not accepted at their first choice college, 55 percent preferred private institutions, 45 percent publicly supported institutions.

<table>
<thead>
<tr>
<th>Is This First Choice College?</th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.43% Yes</td>
<td>91.26</td>
<td>85.57</td>
<td>86.90</td>
<td>89.88</td>
</tr>
<tr>
<td>11.57% No</td>
<td>8.74</td>
<td>14.43</td>
<td>13.10</td>
<td>10.12</td>
</tr>
</tbody>
</table>

If Not First Choice, What Type Preferred?

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Private</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.83 Public University</td>
<td>22.53</td>
<td>16.58</td>
<td>17.05</td>
<td>21.43</td>
</tr>
<tr>
<td>27.19% State College</td>
<td>32.41</td>
<td>19.75</td>
<td>21.97</td>
<td>28.57</td>
</tr>
<tr>
<td>54.98% Private College/ University</td>
<td>45.06</td>
<td>63.67</td>
<td>60.98</td>
<td>50.00</td>
</tr>
</tbody>
</table>
The data indicate that 86 percent of those who were successful in transferring had a high school record of C+ or higher and 60 percent had a record of B or better. In view of the fact that 55 percent of the transfers came from other four-year institutions and would have had to qualify for selective freshman admissions, the above average academic high school record is not surprising. However, it suggests that the two-year colleges may be transferring those students who might have succeeded at a four-year institution if they attended immediately after high school. It also suggests that the two-year colleges do better at educating their "good" students than their "late bloomers," and that a good high school record tends to produce a good junior college record which tends to produce a good four-year college record. This finding corroborates the findings in the Knoell-Medsker study, Articulation Between Two-Year and Four-Year Colleges.

<table>
<thead>
<tr>
<th>High School Record</th>
<th>A's</th>
<th>B+</th>
<th>B's</th>
<th>C+</th>
<th>C's</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Total Population</td>
<td>461</td>
<td>6.61</td>
<td>1276</td>
<td>18.30</td>
<td>2327</td>
</tr>
<tr>
<td>Males</td>
<td>129</td>
<td>3.62</td>
<td>444</td>
<td>12.45</td>
<td>1041</td>
</tr>
<tr>
<td>Females</td>
<td>332</td>
<td>9.74</td>
<td>832</td>
<td>24.41</td>
<td>1286</td>
</tr>
</tbody>
</table>

Based on the high school record, sex discrimination is more obvious and blatant on the freshman admissions level than transfer; 92 percent of the female transfer students had
a C+ or better average, whereas only 57 percent of the male transfers earned a C+ or better in high school, and of those 72 percent earned a B or better, whereas only 45 percent of the males earned a B or higher.

A number of findings were somewhat surprising. In view of the increasing number of community colleges in Massachusetts, it was assumed that the largest number of transfers would come from the community colleges. On the contrary, the data indicate that 55 percent moved from one four-year institution to another, possibly excluding a portion of the new populations that the community colleges are presently serving. The current rhetoric, however, purports to encourage access to higher education for precisely these new populations. It could be interpreted that the mobility of the four-year students is achieved at the expense of possible transfers from the two-year institutions, thus defeating the goal of increased accessibility for the new populations.

It appears that admissions requirements for women are higher than for men, in that ten percent fewer women than men had ever been in poor academic standing and ten percent more women had earned a cumulative average of 3.0 or higher.

Another unusual finding shows that 74 percent of the transfers did not apply for financial aid. Either no financial aid is available for transfers and that is communicated clearly to them, or the fear of jeopardizing a favorable admissions decision by requesting aid motivated
others to withhold an application. Both are untenable situations.

In that transfers were expected to declare majors upon transfer, it is significant that 30 percent of the transfers were unclear about their vocational goals and needed career information.

If the state of Massachusetts has a commitment to the education of new populations, to equal access for both women and men, providing adequate financial aid for those students who cannot afford to pay for their education, providing students with realistic career options in addition to a general education, then the state must do more than rhetorically support those principles. It must commit both the necessary resources for their implementation and be willing to experiment with creative and innovative approaches to solving their critical problems.
CHAPTER V

IMPLICATIONS OF FINDINGS AND RECOMMENDATIONS

The data suggest two distinct typologies of transfer student; a typical transfer, and various atypical transfers, for instance, the over-24-year-old, married student. The recommendations that follow will be as they relate to a single item, such as age, sex, or residence, or to the typical transfer, or to the atypical transfer. Also, other recommendations will appear in combinations of the various items and in relationship to the typical or atypical student.

The typical transfer student is under 24 years of age, single, slightly more likely to be male, a Massachusetts resident, at least in the public sector, a non-veteran who attended college immediately after high school. The typical transfer student more likely moved from one four-year institution to another (55 percent) than from a two to four-year institution, enrolling as a junior in his first choice transfer institution, which is as likely to be public as private. The typical transfer student, who has not been in poor academic standing and has a minimum cumulative average of 2.5, feels sure of his vocational goals and does not need career information, and aspires to at least a bachelor's degree, and possibly a master's. The typical student will finance at least the undergraduate portion through work and family support, with no assistance from college financial aid.
The above profile of the typical transfer student suggests that the four-year institutions have selected a very low risk student, an almost "sure bet." The student has clear goals, is academically qualified, and is asking for no financial aid.

It is hard for this investigator, who has had ten years of experience in higher education--public and private, two and four-year--to believe that 74 percent of the transfer students who did not apply did not need financial aid, but rather did not apply for other reasons. One of those reasons could be based on the fear that the admissions decision would be influenced by the financial aid need. Another very important reason could be that four-year institutions have not made financial aid available to first semester transfers and have communicated that policy clearly through the admissions offices and counselors who assist in transfer.

It is understandable for those who transferred from private to private colleges or from private to public colleges not to require large amounts of financial aid, but it is difficult to perceive how the 57 percent who transferred from public institutions were not going to need assistance.

If a four-year educational institution's success is based on the number of students it graduates, then the financial aid dollar would be better invested in the transfer student rather than in freshmen, for two reasons:
one, the transfer needs only two years of assistance to graduate, and he is more likely to graduate than the entering freshman. The results of a longitudinal study completed at the University of Massachusetts, conducted by Dr. Ernest Beals, indicated that 93.5 percent of the transfer students at the University at Amherst who transferred from community colleges are academically successful. About 75 percent of the transfer students had graduated and 18.5 percent were still enrolled and in good academic standing.

Therefore, the following recommendations are made with the view of making financial aid available to the transfer student:

1. A separate application can be designed for the transfer applicant with questions appropriate to their particular situation.

2. A descriptive sheet should accompany the application providing information regarding deadlines for applications for financial aid, explanation of all types of aid available, and other specific and pertinent information.

3. Financial aid should be made available to transfer students in an amount proportionately equal to the amount awarded to native students and incoming freshmen.

4. Financial aid should be available to the transfer student for the student's first semester at the
receiving institution.

5. If transfer students are accepted later than freshmen, an equitable amount of money should be reserved for them.

6. The admission decision should be dependent upon financial aid being available.

7. Insofar as possible, the notification of the financial aid should accompany the admission offer.

The data indicate that 63 percent of the transfer students were sure of their vocational goals and did not need career choice information. Although this trend is expected since the transfer student is expected to begin a major upon transfer, it is the belief of this researcher that the transfer student has a "fuzzy" notion in high school about what he wanted to be when he "grew up," based on very little career information and little counseling. Since 45 percent of the transfers came from two-year institutions, it is assumed that they attended a two-year college for a number of reasons, among which might be a non-competitive high school record necessary for acceptance to a four-year institution immediately after high school. If that assumption is sound, then they may have been among the group in high school who had little attention from the high school guidance counselor who was preoccupied with getting the "good" student into a "good" college. Consequently, based on little sound career information, the student attended the local community
college and enrolled in a transfer program generally requiring very rigid general education transfer courses, so numerous and specific that he had no opportunity to explore. The student is assisted by a transfer counselor at the community college, who generally has at least one other responsibility, to select an appropriate college for the student's stated preference. That counselor has little time for career counseling. This student then transfers into a specific major at the four-year college and finally has courses related to the "fuzzy" area in which he thought he was interested, soon to discover either that the selection still seems appropriate or that the exposure was sufficient to make him realize that he made a judgement on insufficient information, having now to change majors at the junior year level.

This example may be an unusual case, but if the numbers of those who said they were sure but "fuzzy" were combined with those who were unclear and needed information (37 percent), the situation related to counseling and career planning would warrant extensive additional research and justify the following recommendations:

1. Improved vocational counseling should be made available to transfer students.

2. Greater career development counseling programs be coordinated between two and four-year counseling staffs to provide coordinated and continuous career development.
3. Articulation meetings should be established between counselors in two and four-year colleges, as well as with high school counselors.

4. Summer counseling programs should be established for transfer students separate from summer counseling for incoming freshmen. Great emphasis should be placed on the course selections for intended majors, since the transfer student has normally only four semesters to complete degree requirements.

5. Course selections for transfer students should occur early enough in the pre-registration period so that the transfer student has sufficient variety from which to choose courses to complete degree requirements, rather than being left with the "dregs" of course selection.

Although the typical transfer at the public four-year institution is a Massachusetts resident, greater effort should be made to enroll larger numbers of Massachusetts residents in the private colleges in Massachusetts.

Within the last decade, the expansion of public higher education has made available post-secondary education for an increasing number of Massachusetts residents. Because of the existence of a large number of private colleges in Massachusetts, a system of public higher education was slow in developing, in spite of the fact that the private
institutions did not enroll large numbers of Massachusetts residents.

State subsidy of private institutions of higher education can more readily be justified as private institutions increase their share of the burden of educating large numbers of Massachusetts residents. And, if through subsidy and coordination, the offerings at the private colleges become more readily available to more Massachusetts residents, then the variety and flexibility they can add to the already rich resources of the public sector will make higher education in Massachusetts enviable.

Until the completion of the third study\(^1\)--currently being conducted by Dr. Ernest Beals to determine how many transfer applicants are not placed in four-year institutions--we will not have unambiguous information about the extent to which Massachusetts residents are finding access to four-year post-secondary institutions in either the public or private sector.

Although the numbers of males and females are reaching equality, a constant effort should be made to provide access for more women. Admissions procedures frequently exclude older, married women from enrolling. For instance, many institutions require a day division student to be registered for a full time load and provisions are not made for part

\(^1\)The first study refers to the Two-Year Study conducted by STAC. The second is this four-year study on which these recommendations are based.
It is recommended that:

1. Part time degree seeking status be provided to encourage older, married women to continue their education. Many women may prefer to be in classes during the day while their children are in school.

2. Day care facilities be expanded to further encourage women to seek higher education.

3. A greater effort be made to encourage women to consider professions which were previously male-dominated, such as engineering, business administration, law, and medicine.

4. Scheduling must be flexible enough to accommodate the busy life and demands of a mother, wife, housekeeper, and student.

5. Admissions officers must actively and imaginatively recruit women using every forum possible; Women's Centers, P.T.A.'s, welfare offices, employment agencies, rehabilitation centers, social action agencies, women's clubs, church groups, etc. All types of media should be employed to let women know they are encouraged to apply and will not be discriminated against.

6. The minimum cumulative average necessary for admission for women be not higher than that required for men. The data shows that 48 percent of the
females had a 3.0 or higher, whereas only 38 percent of the male students had a 3.0 or higher. In addition, 94 percent of the females had never been in poor academic standing, whereas only 84 percent of the males had not been in poor academic standing.

The findings related to admissions requirements from high school indicate blatant discrimination against women.

It is interesting to note that more females aspire to bachelor's or master's degrees, whereas nearly twice as many males as females aspire to the doctorate.

The typical transfer student is unmarried, and under the age of 24. This finding is not startling in that higher education has historically tended to serve that segment of the population. Continuing Education divisions of colleges have become the usual way to accommodate the needs of the older, married student who is primarily concerned with earning a living and supporting a family and who can find time in the evenings to take one or two courses, generally at a higher tuition rate than is charged in the day division. Fortunately, continuing education has begun to address the concerns of "life-long learning." However, it is the very strong feeling of this investigator that continuing education divisions should be brought into the mainstream of education with a comparable fee structure and funded by the same source as is the day division. The working adult, who is probably the most productive member
in the society is overlooked and it is he who pays the taxes to support at least public education.

In order to accommodate the needs of these atypical students, the over 24 married working adult, it is recommended that:

1. Flexible scheduling be easily arranged to meet their needs and the restrictions of work and family.

2. Weekend colleges be designed which address the needs of those enrolled and attract other adults, including salesmen who are mobile.

3. Four-year institutions begin to approach 24-hour-a-day scheduling which makes more efficient use of the physical plant, addresses the needs of those who are on shifting shifts.

4. Adequate married student housing be available at reasonable cost.

Perhaps the objection of the faculty to teaching during the traditional 9-5 hours can be overcome by a salary differential, which is comparable in industry to the differential to "swing and night shifters." It might be surprising to find that many faculty members would welcome greater flexibility in suiting their own needs, and life styles.

Those recommendations relating to the atypical student serve two purposes, to accommodate the needs of those enrolled and to attract other adult and perhaps non-traditional learners.
Another atypical group in this study consists of the students whose cumulative average at the sending institution ranged from a 2.0 to 2.5. It can be assumed that the cumulative average was a result of continuous progress from the first semester to the third semester, yet not reaching the minimum 2.5. Another explanation may be that the student changed from one curriculum to another, but had to include the usually unsuccessful first semester average in the cumulative average. A common shift is from the very technical, scientific to a social science curriculum.

The literature indicates that grade-point differential between the two-year college and the four-year institution is in part dependent upon different grading practices and varying methods of computing the cumulative average. For instance, some institutions include an 'F' grade into an average, some eliminate a 'D' grade if the course is repeated, others average the two grades. The varying degree of academic rigor that is required in various curricula, both at the two and four-year institution, is important to consider in any research relating to cumulative averages. There is not sufficient data to predict the grade point average necessary at the two-year college to be successful at the four-year institution.

Therefore, it is recommended that:

1. Each four-year institution accepting transfer students begin studies to examine grade-point
differentials, with the goal of determining a differential that most transfers can afford.

2. Serious consideration be given to accommodating students whose grade point average is below 2.5.

3. Any student earning a 2.0 in a two-year college be guaranteed a place in a four-year institution if that student chooses to transfer. A student at a four-year institution rising to junior level needs only a 2.0, therefore, it is discriminatory at least in the public sector not to allow a 2.0 at a community college to move into junior status.

It becomes very clear that the entire area of transfer articulation is under-researched on the institutional, state, and national level. The following are recommendations and suggestions for future research.

RECOMMENDATIONS FOR FUTURE RESEARCH AT THE INSTITUTIONAL LEVEL

It is recommended that each four-year institution establish an Office of Transfer Affairs which will be concerned with:

a. The recruitment of transfer students.

Recruitment suggests an aggressive effort to encourage racial minorities, women, adults, and other a-typical students who found access originally and should be able to continue their education. If 4 percent of the transfer population in this study is over 30 years of age, some of whom "stopped out" for a period of time and others who began
later than the typical student, perhaps there are others who might attempt higher education if the environment was conducive and encouraging.

b. **The admission of transfer students.**

The offer of admission should be accompanied by an offer of financial aid and received by the applicant as early in March as is feasible. An admission counseling interview should be encouraged whenever possible and as early in the applicant's transfer investigation as possible.

The Knoell-Medsker study indicates that junior college transfers could be successful in achieving their degree goals if they would select a senior institution and major field matched to their ability and prior achievement; such matching is more important at the transfer level than at the freshman level, solely in terms of time.

c. **The credit evaluation of the transfer's transcript.**

When transfer admissions first became a significant part of the total admissions picture, courses were transferred on a course by course matching basis, excluding any course with a 'D' grade. There was great diversity among the four-year institutions in the amount of credit allowed in transfer. Recently, some institutions are accepting the associates degree totally, giving junior status to the two-year junior college graduate transfer.

d. **The orientation of the transfer student,** providing separate academic advising, counseling, and an opportunity
to pre-register before prime classes are closed out.

e. Conducting on-going follow-up studies on the academic performance of students, catalogued by sending institutions and by program at both the sending and receiving institutions.

f. Initiating curriculum coordination between the sending and receiving institutions.

g. Providing updated information about new program developments, special and unusual programs to the transfer counselors at the two-year colleges and directly to the students.

h. Assisting native students who perceive a need to transfer to another institution if their programmatic or personal needs are not being met.

RECOMMENDATIONS FOR FUTURE RESEARCH AT THE STATE LEVEL

Since the community colleges, state colleges, and universities are governed by separate boards of trustees, a coordinating agency is essential to recognize the specific nature of the different institutions while developing a curriculum master plan. In Massachusetts, the Board of Higher Education is designed as the coordinating agency. However, with limited staff and financial support, the Board of Higher Education does not seem to be able to undertake more than program review among the various institutions and to review and approve budget requests for legislative
consideration. It is recommended that the Board of Higher Education be adequately staffed and funded

1. to initiate research in areas of transfer articulation among and between the two and four-year institutions in the state;

2. to encourage and sponsor curriculum articulation meetings in specific disciplines such as art, nursing, education, etc.;

3. to encourage and stimulate development of new programs in community colleges to reflect changing technological needs and new programs in senior institutions to accommodate the demand for higher education;

4. to initiate research on the state level to determine the grade point differential that a community college student can afford in transfer with the goal of giving serious consideration to the students earning between 2.0 and 2.5.

RECOMMENDATIONS FOR FUTURE RESEARCH AT THE NATIONAL LEVEL

Since decisions of priorities relating to higher education are frequently made at the federal level and the implementation of those priorities is encouraged by federal grants and subsidies, it is recommended that the U.S. Office of Education:

1. collect annual data on transfer enrollment;
2. conduct studies that indicate what proportion and what sorts of students transfer from two to four-year institutions;

3. initiate studies to determine the movement of minority students through the transfer route to the baccalaureate.

Willingham concludes that minority students are almost certainly underrepresented among transfer students as compared with the proportion of minority freshmen in two-year colleges.

The development of the community college system in the United States has opened up educational opportunities to large numbers of people. It is my strong belief that the educational leaders must enhance those educational opportunities by insuring that the mechanism functions for transfer from two to four-year institutions. Where the mechanism exists, on-going studies should be conducted to be sure that it functions equitably, where it does not exist, cooperative efforts must be made to establish the mechanism.

It is hoped that the three transfer articulation studies of which this investigation is a part will serve as a basis for statewide planning in transfer articulation, and serve as a model for on-going research.
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Scherer, P. L.  "Junior-Senior College Articulation," University of California, Santa Barbara, College and University, Summer 1972.


## Transfer Student Questionnaire

### Immediately After High School:
- Attended college
- Worked
- Married
- Armed services
- Other

### Transferred From:
- Public 2 Yr
- Private 2 Yr
- Church affiliated 2 Yr
- Other

### Eligible for Vets Benefits:
- Yes
- No
- N/A

### Marital:
- Single
- Married
- Other

### Have You Ever Been in Poor Academic Standing?
- No
- Scholastic probation
- Scholastic dismissal

### Planned Living Arrangement:
- Residence hall
- Sorority or fraternity
- Other

### Commute:
- From home
- Off campus
- Other

### Previous and Intended Major:
- Art
- Agriculture
- Business Admin
- Communication
- Drama
- Elementary Ed
- Engineering
- Health Service
- Home Economics
- Humanities
- Gen, Liberal Arts
- Math
- Music
- Nursing
- Physical Ed
- Science
- Secondary Ed
- Social Science
- Special Ed
- Other
- Undecided

### Previous Study:
- Full time
- Part time
- Both

### Expected Entrance:
- Freshmen
- Sophomore
- Junior
- Senior

### Previous Study:
- Did not apply
- Applied; none received
- Received scholarship
- Received loan
- Received combination
- Have not yet heard

### Legal Residence:
- Mass
- Other N.E. state
- NY, NJ, Pa
- Mid Atlantic
- South
- Mid West
- South West
- Far West
- Foreign

### Financial Aid for First Semester:
- Did not apply
- Applied; none received
- Received scholarship
- Received loan
- Received combination
- Have not yet heard

### Percent of Financial Support for Next Two Years:

<table>
<thead>
<tr>
<th>% Age</th>
<th>College Fin Aid</th>
<th>Work</th>
<th>Savings</th>
<th>Outside Fin Aid</th>
<th>Family Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 20</td>
<td>80</td>
<td>50</td>
<td>10</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td>21 - 40</td>
<td>65</td>
<td>50</td>
<td>10</td>
<td>70</td>
<td>90</td>
</tr>
<tr>
<td>41 - 60</td>
<td>70</td>
<td>50</td>
<td>10</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td>61 - 80</td>
<td>80</td>
<td>50</td>
<td>10</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>81 - 100</td>
<td>90</td>
<td>50</td>
<td>10</td>
<td>85</td>
<td>90</td>
</tr>
</tbody>
</table>

### What Was Your Cum. Avg. Prior to Enrollment?
- 1.0
- 1.5
- 2.0
- 2.5
- 3.0
- 3.5
- 4.0

### Do You Prefer To:
- Live on campus
- Commute
- Live off campus

### Are You Presently Sure of Your Vocational Career?
- Yes
- No

### Your Recollection of Your High School Record:
- A Average
- B Average
- C Average
- D Average

### Your Recollection of Best SAT. Combined Scores:
- 1400 +
- 1200 - 1400
- 1100 - 1200
- 1000 - 1100
- Not taken
APPENDIX B

Participating Private Institutions

Amherst College
Anna Maria College
Babson College
Bentley College
Boston College
Boston University
Brandeis University
Clark University
Eastern Nazarene College
Emerson College
Emmanuel College
Holy Cross College
Lesley College
Mount Holyoke College
Northeastern University
Regis College
Smith College
Springfield College
Stonehill College
Suffolk University
Tufts University
Wellesley College
Western New England College
Wheaton College
Wheelock College

Participating Public Institutions

Boston State College
Bridgewater State College
Fitchburg State College
Framingham State College
Lowell Institute of Technology
Lowell State College
North Adams State College
Salem State College
Southeastern Massachusetts University
University of Massachusetts at Amherst
University of Massachusetts at Boston
Westfield State College
Worcester State College