This literature review examines the retention problem and applies conclusions to Hofstra University. The conclusions drawn from the various studies indicate:

1. There are many kinds of dropouts; each group should be defined operationally, as clearly as possible.
2. Although techniques for data analysis have become more consistent, it has become apparent that each individual college has a unique attrition problem. It is of prime importance to have ongoing data collection and analyses to evaluate the problems and progress of an institution.
3. Precollege indicators such as socioeconomic data, commitment to get a degree, financial need, academic background, and commitment to Hofstra can help identify potential withdrawals.
4. Of these precollege variables, academic aptitude and past academic performance have been the most important indicators of college attrition in the past.
5. There are certain college characteristics, such as majors offered and location of school, that make students more or less satisfied with their school.
6. Some of these characteristics are changeable and important to the kind of student who is educationally committed and has a good academic background.
7. The attrition problem is multicausal and not fully explainable.
8. There are no comprehensive models from the literature that have produced a substantial decrease in attrition rates. In summary, the literature on retention indicates that intervention techniques appear to be the most researched and potentially positive of the tools for increasing retention.
The nation-wide college dropout problem has long been a subject of great interest to educators. Until very recently, however, solutions to the problem were not absolutely crucial to the administrators of individual colleges and universities. In the 50's and 60's, institutions of higher education were experiencing enormous growth, and the more acute problem for the decision-makers was how to develop facilities to accommodate all the students who wanted a college education. Budgeters were concerned with attrition only in that it was more costly to the institution to have a high turnover rate, i.e., a greater proportion of transfers than "native" students who spend their entire college career at the school. These "native" students are also more likely to be closely involved in school activities while at college and after graduation, again possibly attracting more revenue to the school.

Thus, researchers in the past could be concerned with the problem of college attrition in a more or less "pure" manner; to find an answer simply because the question had been asked. Although concern was expressed for the country's manpower and for the students themselves, the results of the vast body of research on attrition has rarely been applied. Now, in the '70's, the economic picture has suddenly changed drastically and higher education is in trouble. Declining enrollments, increased attrition, stop-out, and transfer rates are becoming more and more prevalent among college and universities, particularly private, nonprestigious institutions. The projections for the 1980's and 1990's are bleak. Since increases in enrollment will be limited by the declining birth rate, retention of enrolled students becomes high priority.

**Hofstra's Problem**

Recent data indicate that Hofstra is among the colleges who have suffered a decline in its holding power. In CSHE report #108 (McDermott and Lichtenstein, 1974) it was reported that the five year persistence rate of Hofstra freshman classes has steadily declined over the past few years and the decline has been particularly sharp among those students who had been doing satisfactory work (2.0 GPA or better). Verification of this trend has been shown in a cross-sectional study of Hofstra voluntary withdrawers by Witheiler and Lichtenstein in preparation. This study presents attrition rates for the 1968 through 1974 Fall, full-time day undergraduates. The rates have increased steadily from ten percent in 1968 to eighteen percent in 1974.
Review of the Past Literature: Possible Contributions Toward Attrition Prevention

Although the national retention rate (graduated or still enrolled) had remained relatively stable for the past fifty years (about 60% over four years, Summerskill 1962, Astin 1972), various colleges have reported increased rates of attrition in the past few years (Pennsylvania State University, 1973, Lucas, 1973 CRC Notes, 1973). Variability of rates from institution to institution has always been high, however, ranging from about 15% to 80% (Summerskill, 1962). These variable rates in themselves suggest that changes in environment and/or type of students enrolled can drastically affect an individual college's retention rate. Given that premise, we can proceed to examine what factors contribute to these differences and what changes are within the realm of possibility for Hofstra.

The college dropout problem has been a discouraging area for educational researchers. Descriptive studies have shown that among the important variables are academic aptitude, high school grades, motivation, and finances of the students, and the social and academic match between the student and the institution. It has become obvious, however, that the relative importance of a single factor is very difficult to assess and that there is rarely a single reason for a student to drop out. In addition, conflicting results have often been reported from study to study for many reasons not the least of which is the varying definitions of "dropouts". Some investigators study freshman dropouts, while others study four year withdrawals. Some include transfers in the dropout groups while others differentiate between those who go on to another college and those who stop going to school. In any case, to completely differentiate among the various types of dropouts, thus maximizing the predictive power of a study, is so difficult that it is often impractical for an individual institution.

Not only is dropping out multi-causal but investigators have become increasingly aware of the complex effects of withdrawal. These are not always negative for the student nor are they usually permanent. Most dropouts eventually get a college degree (Eckland, 1964, El Khawas and Bisconti, 1974). Some merely take a necessary "time-out" while others learn that they are not suited to or obtain little satisfaction from college. A goal may be to reduce the university's attrition rate to the extent that it is beneficial to both the students and the university. By making each student aware of his educational options upon withdrawal, the school can increase the probability of "stop-outs" returning to Hofstra when they decide to get their degree.

In the early stage of dropout research, many investigators tried to find out why students dropped out by sending them questionnaires after they had left. Although this technique has produced helpful information, the results were confounded by withdrawn students' lack of response and reluctance and/or inability to state and rank their real reasons for dropping out. More recently, researchers have focussed on predicting, on the basis of pre-college variables, the types of students who might withdraw from college. While the results have been more productive than the previous type of research, the data have been far from impressive. Multiple correlations have been significant but low. Astin (1972) in a study of 217 institutions across the country used thirty variables and reported a correlation of .34 which leaves most of the variance unexplained. This result is about as high as has been reported in the literature.

Both methods are apparently inconclusive in and of themselves. A multi-pronged approach is indicated. Surveys of student withdrawals' reasons for leaving a school seem to be more useful as indicators of environmental dissatisfactions than as reasons for leaving. Comparable data on persistors' dissatisfactions yields even more
information than surveys of withdrawers alone. Thus, the use of predictor variables in conjunction with indices of environmental dissatisfaction would seem to yield the most information about dropouts. Naturally, this approach will not identify high-risk students for individualized intervention unless they have been at the college for a long enough time to get an impression of their environment. Collection of data for this purpose should be done before the end of the students' first semester at school. These same sets of data can also be used to set up retention programs on campus geared specifically to the various types of students who express dissatisfaction with particular aspects of the college environment.

This multi-pronged approach to the retention problem is beginning to appear more frequently in the literature. A recent investigator (Blanchfield, 1972) reported that he was able to classify dropouts and persistors from Syracuse University with a high degree of accuracy (70 to 73%) using discriminant analysis and employing both precollege and college environmental variables. The most significant variables were high school rank, financial aid by grants and a social consciousness score. This result, however, is no indication that we could get the same results at Hofstra by simply using the same technique and plugging in the same variables. For instance, since Hofstra has raised its admissions standards, the predictive ability of high school decile has become limited. Academic variables are of little or no use in identifying potential withdrawers at the high end of the scale (Marsh, 1966). They are useful primarily in identifying those students who will not succeed academically.

The most important contribution of the type of study mentioned above is that it now seems to be within the realm of possibility to utilize data and techniques with more precision in order to provide meaningful information about Hofstra students. It may now be possible to effectively rate the relative influence of the college environment on various types of students who decide to withdraw. These results can then be used in forming retention programs which will include relevant changes in the university. A more knowledgeable evaluation of these programs will also be possible.

It is not the intention of this report to undertake a thorough review of the dropout literature. This has been done often and thoroughly enough (Summerskill, 1962; McDermott, 1971; McArdle, 1974; Tinto and Cullen, 1973) to provide any interested administrator a good idea of the extent of the problem and an overview of the results obtained. These reviews summarize the results of hundreds of reports.

The purpose of this section of the report is to provide an empirical base from the literature upon which to build a program for applied research at Hofstra directed towards analyzing our retention problem. Thus, from the studies of the past, the following conclusions can be drawn:

1. There are many kinds of dropouts, e.g., academic dismissals, voluntary withdrawals, graduated or still enrolled, leaves of absence, etc. Each group should be defined, operationally, as clearly as possible.

2. There are different kinds of colleges. Although techniques for data analysis have become more consistent, it has become apparent that each individual college has a unique attrition problem. It is of prime importance to have on-going data collection and analyses in order to evaluate the problems and progress of an institution.
3. There are certain types of students who are more likely to withdraw than others. Pre-college indicators such as socio-economic data, commitment to get a degree, financial need, academic background, and commitment to Hofstra can help us identify potential withdrawers. This knowledge is helpful in efforts to increase retention through selective recruitment and intervention techniques such as counseling.

4. Of these pre-college variables, academic aptitude and past academic performance have been the most important indicators of college attrition in the past. By raising our standards for admission into Hofstra, we have taken a first step towards increasing our retention rate through selective recruitment. However, since the academically satisfactory students have been leaving Hofstra at an accelerated rate, attention to secondary variables, such as motivation and financial aid become increasingly important in additional efforts to reverse the trend.

5. There are certain college characteristics, such as majors offered and location of school, that make students more or less satisfied with their school. These dissatisfactions influence attrition. Some students are more influenced by these dissatisfactions than others and are thus more likely to withdraw.

6. Some of these characteristics are changeable and important to the kind of student we would most like to keep, e.g., the educationally committed students with good academic backgrounds. Unless these students are satisfied, they will most likely transfer to another college. If they are committed to getting a degree at Hofstra, they may stay but will more than likely contribute towards giving Hofstra a negative public image, thus affecting recruitment and retention of other students.

7. The attrition problem is multicausal and not fully explainable. Identification of potential dropouts and identification of negative environmental variables will not yield absolutely conclusive results concerning the retention problem at Hofstra. They will provide important indicators, based on data, which can be used in preparing a comprehensive plan aimed at increasing retention.

8. There are no comprehensive models from the literature which have produced a substantial decrease in attrition rates. Counseling of the students with poor academic records has been the most successful. Other procedures have been tried and there are some promising attempts and suggestions from the recent literature. These will be discussed later in this paper. Since the problem of decline in retention rates is relatively new, evaluative data are sparse.
The Questions at Hofstra

If a plan is to be formulated, an attempt should be made to answer the following questions which have been put into three categories. These categories are based on the different means available to a college to effect change in order to increase retention, i.e., environmental changes, recruitment and intervention.

Environmental changes:

1. Which aspects of the environment at Hofstra are related to student withdrawal?

2. Which characteristics of the environment are related to withdrawal for different sub-cultures of students?

3. Which of these factors are changeable?

4. How can they be changed?

Recruitment:

1. Which types of students will most likely be satisfied with the changed environment?

2. Which types of students will most likely be satisfied with the unchangeable aspects of Hofstra's environment, thus ensuring a better student-institution fit, and thereby, increasing retention.

3. How can we attract these students?

Intervention:

1. Which types of students are most likely to withdraw?

2. What intervention procedures would most likely be effective for these students?

Suggestions for Retention from the Recent Literature

In the past few years, institutions of higher education have been concerned with finding practical solutions to the dropout problem. A few of those schools have reported encouraging results. The following suggestions from this relatively new area of the literature seemed most promising. They are organized according to the categories outlined above in order to put them into a meaningful perspective.

Changing the College Environment

1. In-service training of faculty (Heath, 1973): Since the faculty has the most contact with the students it is important that they become involved in encouraging persistence among students. Points towards promotion or pay increases were suggested as incentives for participation. To do this, seminars could be held with the faculty and a retention committee, or a Dean of Faculty, with the following objectives:
a. To learn the dynamics of proper referral for counseling and to become more involved in the counseling process when appropriate.

b. To become more involved in creating a climate of total student development.

c. To become more aware of the needs of the student body from institutional research and to make the administration more aware of their first-hand information concerning individual student's needs.

d. To learn a more consistent and productive method of academic advisement.

2. Staff development (Heath, 1973): All segments of the college (custodians, too) should be involved. "Be sure that all facets of the college present some warmth and interest toward students" (Heath, 1973). A student personnel staff could provide liaison among all segments of the school. They could help handle admissions, train peer counselors for late applicants and communicate student attitudes and values.

3. Administrative assistance: A retention program needs the total commitment of the decision makers in order to succeed. The few successful attempts to foster student development and reduce attrition reported in the literature were marked by an attitude of cooperation and commitment and backed fully by the administrative staffs (Kopplin and Rice, 1975; Drum and Figler, 1973). Long range planning is necessary and only possible when the facts are available and up-to-date. Statistically analyzed surveys and well-defined attrition rates are needed and should be used in decision-making for reducing attrition rates (Heath, 1973).

4. Curriculum changes:


*b. Study skills seminars (Heath, 1973).

c. A course called "Making a Vocational Educational Choice" was instituted at the University of Iowa. The course carried two semester hours of credit and was limited to twenty students in each sections. It attempts to develop the students own ideas concerning their future plans, and makes available to the students information and available resources for assisting the student in the decision making process (Demitroff, 1974).

5. Changes in majors offered: The only reference to this subject was found in an article by W. H. Huber (1971) on "Channeling Students for Greater Retention." He suggested that a school should offer "a limited but quality set of programs to serve a limited and particular kind of client and that the school is not a total community committed to serving the needs of everyone or even anyone." (Huber, 1971). No data were presented.

*These subjects have also been suggested by Demitroff, 1974, but in the form of workshops under the Counseling Center.
6. Dormitory changes: Although there are no specific references in the literature to how to change dormitories in order to increase retention rates, a most provocative book was recently published (Chickering, 1974) in cooperation with the American Council on Education (A.C.E.). His findings were based on incoming freshmen and follow-up surveys administered by A.C.E. The author concludes that there are differences between dorm students and commuters when they enter college. The resident students are generally of higher ability and more affluent than commuters. These differences are then accentuated by dorm living.

Students who live at home, in comparison with those who live in college dormitories, are less fully involved in academic activities, and in social activities with other students. Their degree aspirations diminish and they become less committed to a variety of long range goals. They enter educationally and developmentally useful experiences and activities less frequently. They report a shrinking range of competence. Their self-ratings for a diverse array of abilities and desirable personal characteristics drop. Their satisfaction with college decreases, and they become less likely to return.

Commuters and residents begin their college career with an unequal start which strongly favors the residents. The gap between them grows. Residents have access to, find, and are forced to encounter diverse experiences and persons who spur them on their way. Access, discovery, and encounter occur much less for commuters and they continue in circumstances that add weights to their preexisting handicaps. Thus the major consequence of American higher education as it currently functions for commuters and residents is to increase the distance between them. (Chickering, 1974)

The author also found that the optional effects of dormitory living were accrued in a relatively short period of time. After the first or second year, the impact and value of the experience rapidly tapers off.

Chickering then suggests a plan to bridge the gap between the two groups of students. He recommends short-term residential experiences for all students by making them an integral part of courses, seminars, programmed learning materials, and individually designed programs of study. Naturally, there is a question of economics. He suggests that the cost can be brought within reach for the students and the institution by charging all students a modest fee to cover the cost of these activities. Astin, in the foreword of this book, recommends a cost-benefit analysis by economically oriented researchers in order to more specifically define the cost to the institution and the students.
7. Changes in social life: No references were found that were specifically related to socially-oriented retention programs. The programs suggested throughout this report all seem to be geared to a stronger sense of community which, in turn, is related to a more satisfactory social environment.

8. Financial aid: There was little evidence found in the literature that financial aid increases a college's holding power. Two studies (Seiby, 1973; Fields and LeMay, 1973) reported no relationship between persistence in their college and financial aid. Blanchfield (1972), however, reported a positive effect on retention in his study of Syracuse University students and Yuker et. al. (1972) also reported higher retention rates for 1971 financial aid recipients at Hofstra. More information is needed before a conclusion can be reached concerning the effects of financial aid on retention rates at Hofstra.

Recruitment

Recruitment is directly related to retention in that it is the job of recruiters to attract students to the school who will most likely be satisfied with their college environment, thus ensuring greater retention and possibly attracting other students to the school. To recruit students who will be mismatched with the institution is a waste of resources. Studies from the past literature indicate that many of these students transfer or drop out.

There was only one article found in the literature which dealt directly with the problem of how to attract students who will most likely persist at the college. Huber (1971) criticizes the simplified quantitative approach to admissions screening, i.e., just using academic performance and aptitude in the selection procedure. He states that "for students in the mid and top ranges (of high school grades) the degree of correlation between these data and actual performance and retention is insignificant" (Huber, 1971). Thus, this system of recruitment and admissions selection is inadequate.

The author refers to a group of schools (not designated) whose retention rates exceed 80%. The administrators of these schools have available for their use objective descriptions of their institutional environments; their size, facilities, faculty, resources, student attitudes and needs, etc. are regularly assessed. Then, special attention is given by each school to matching applicants or prospective applicants to the environment. When advertising the school, the functions are publicized in an open and forthright fashion, neither underselling nor overselling the product. "Furthermore, and of prime importance, the product line has been relatively constant, which indicates a commitment to the limited functions the institution sees itself as having capabilities of performing and which functions will be useful to but a particular segment of the total demand for educational experiences" (Huber, 1971). The school does not attempt to be all things to all people. Its mission and environment are well defined. The aim is not to compete with "name schools" but to be "recognized for its own worth by producing a top quality product" (Huber, 1971).

No other specific suggestions were found from the literature on recruitment activities which relate directly to retention. Researchers of college attrition strongly recommend getting the facts, and in the recruitment area this means getting an accurate description of the college environment. This can be achieved by the use of standardized tests, such as CUES (College and University Environment Scales).
from Educational Testing Service. Another possibility is the construction of a locally devised test which would be more specific to Hofstra's environment and would more likely produce explicit information for decision-making at this institution.

**Intervention**

This particular area was by far the most explored by researchers. Counseling of students has always been the main focus of colleges when trying to increase their holding power. The results are generally positive, particularly when dealing with students with academic problems. In general, however, the biggest problem with this approach is finding practical methods to reach all students in need of aid. Not only is there an economic problem in finding funds to provide for enough counselors but there is also an image problem. It is difficult to get the students who are in need of help to come for assistance. The most recent literature is concerned with a relatively new approach in counseling, namely, Out-reach. Out-reach, to put it simply, is a method of counseling which reaches out into the college community to extend aid to students rather than waiting for the students to feel desperate enough to go to an office for counseling. Out-reach can include personal counseling, vocational guidance, and academic advisement. It also has many different forms for implementation including utilizing staff, community volunteers, student and faculty. Thus, Out-reach, not only means a movement out of the office into the college community but the definition includes all efforts of intervention by the counselor to diversify his approach to students in order to benefit as many students as possible. The literature is extensive on specific plans and how to implement them. Evaluative data are just beginning to appear in the literature and are generally positive. The most important variable in implementing any of these plans seems to be the full cooperation and backing of all personnel in the university. Without a comprehensive effort, focussed around the counseling office or office of advisement and backed by the administration and faculty, any piecemeal effort seems to be doomed to failure.

Kopplin and Rice (1975) outlined a faculty-counseling office cooperative program for troubled students in a recent report. They also described implementations of this plan in two different colleges; one that worked and the other a failure. The main ingredients for success appeared to be influential leadership, interest and commitment on the part of the faculty and students, and backing by the administration. Another very positive counseling evaluation was recently reported by Harcum Junior College's Office of Research. Although a full report was not received, they claim that "At Harcum, student counseling is a 'way of Life' for faculty, staff, and administrators...it is a pervasive and clearly apparent characteristic of the Harcum scene, and undoubtedly is a major contributing factor to the exceptionally low student attrition rate which Harcum has enjoyed over the past decade." No rates of attrition were presented.

A very comprehensive and informative book was recently published (Drum, D. and Figler, H., 1973) on this subject. It includes a well-researched review of the literature on counseling methods, their problems and effects. The authors then proceed to integrate these studies and expand them into a multimodal counseling model for a college.
The advantages of this multimodal approach are both economic and pragmatic. With no great increase in staff, it is still possible to maximize the likelihood that a student will make use of counseling help in one form or another. The authors identified the components of their model and outlined how to implement their program. The model was organized around the three basic aims of intervention:

1. "Remedial" or "corrective" counseling by direct or one-to-one method.
2. Developmental programs and services such as value clarification workshops and various self-help materials for resolving developmental needs.
3. Preventative programs such as ongoing communication of a demographic and attitudinal picture of the student body to the faculty and administration.

In order to implement a unified plan, it was proposed that a number of direct actions need to be taken such as:

1. Make an open declaration.
2. State objectives.
3. Identify the target population.
4. Communicate with faculty.
5. Hold frequent meetings with all involved personnel.
6. Offer workshops for students.
7. Offer workshops for faculty.
8. Establish operational guidelines for referral for assistance.
9. Seek non-professional participation among students and the community.
10. Educate the college community on the subject of student development and intervention. (Drum and Figley, 1973)

In summary, the literature on retention indicates that intervention techniques appear to be the most researched and potentially positive of the tools for increasing retention. An over-all plan, employing the efforts of the administration, faculty and staff, and students would be the most fruitful approach. Piecemeal attempts appear to be ineffective and inefficient.
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