



-the
**OHIO STATE
UNIVERSITY
P R E S S**

A Model of Student College Choice

Author(s): David W. Chapman

Source: *The Journal of Higher Education*, Vol. 52, No. 5 (Sep. - Oct., 1981), pp. 490-505

Published by: Ohio State University Press

Stable URL: <http://www.jstor.org/stable/1981837>

Accessed: 31/01/2010 23:42

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=ohiosup>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Ohio State University Press is collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Higher Education*.

<http://www.jstor.org>

A Model of Student College Choice

The prospect of a sharp decline in college applications and subsequent enrollments has generated tremendous pressure on college administrators to find more effective ways to attract students [3]. The workshops, convention programs, and journal articles devoted to the dilemmas of college recruiting bear evidence to administrators' concern that their institutions gain or maintain a competitive edge in the scramble for students. In turn, many colleges are committing substantial sums to develop more sophisticated marketing strategies, more appealing programs, and better recruitment literature [18, 27, 9]. Within this increasingly intense competition for students, many colleges have persisted in the belief that they can affect students' choice of college merely by modifying their institutional descriptions or the targeting of their recruiting. Few admissions officers operate from a systematic model of the influences on student college choice. Lacking such a model, colleges may overlook ways to increase the effectiveness of their recruiting or, conversely, overestimate the influence of recruiting activities in which they do engage.

This article presents a model of the influences affecting prospective students' choice of which college to attend. The model is intended to (1) assist college administrators responsible for setting recruitment policy to identify the pressures and influences they need to consider in developing institutional recruiting policy and (2) aid continued research in

The preparation of this article was supported in part by a contract from the Fund for the Improvement of Postsecondary Education, no. G007804724. The opinions expressed do not necessarily reflect those of the sponsor.

David W. Chapman is assistant professor of education, State University of New York at Albany.

the area of student college choice. A second purpose of this article is to review recent research relevant to one aspect of the model, the influence of printed materials on students' college choice. Given the tightening of institutional budgets and the rising price of admissions travel, many college admissions officers expect to rely increasingly on the mailing of printed materials to recruit students [13]. According to this model, the way an institution describes itself through its printed materials is one of the relatively few ways a college can exercise direct influence on prospective students' choice. For an institution needing students, then, the efficacy of printed information may hold important consequences. Moreover, this research responds to an issue raised by a number of recent federal projects, which contends that colleges should improve the information they make available to prospective students [4, 9, 12].

Why the Lack of Research

While there has been substantial research on factors affecting students' level of educational aspiration and their decisions to attend or not attend college, less attention has been given to students' choice of which college to attend. Several reasons help explain this lack of research. (1) During the time that college enrollments were growing, college administrators were not particularly worried about specific influences on students' college choice. The emphasis in admissions was on selection rather than recruitment. (2) There has been little theory to guide investigations of specific college choice. The models that have been posed have been concerned most often with predicting the impact on institutional enrollment due to changes in federal student financial aid. Tierney, Houang, and Henson [30] have recently presented a model of influences explaining the public versus private matriculation decision. They propose that the probability of a student's decision to matriculate in a public institution is a function of the student's sex, ability, family income, institutional tuition, distance from the institution, institutional selectivity, and total financial aid offers. Nolfi et al. [23] developed a model of college choice to provide policymakers with a means of forecasting the changes in student behavior that would result from anticipated changes in the structure of the educational system or from proposed modifications to educational policy. While certainly related to the model developed in this article, the work of Nolfi et al. [23] is directed at public policy formulation rather than institutional administration.

A Model of Student College Choice

Figure 1 presents a general conceptual model of student college choice that specifies the important variable sets and their interrelationships as a means of guiding both future inquiry and current admissions practice. The model is longitudinal and suggests that, to understand a student's choice of which college to attend, it is necessary to take into account both background and current characteristics of the student, the student's family, and the characteristics of the college. The model is limited to describing the pattern of influences affecting traditional age (18-21) prospective students. Components of the model may be relevant to a wider age range; however, there are special pressures and influences on older adults that are not reflected in the model.

The model suggests that student college choice is influenced by a set of student characteristics in combination with a series of external influences. These external influences can be grouped into three general categories: (1) the influence of significant persons; (2) the fixed characteristics of the institution; and (3) the institution's own efforts to communicate with prospective students. Both the student characteristics and the external influences contribute to and, in turn, are shaped by students' generalized expectations of college life, something Stern [28]

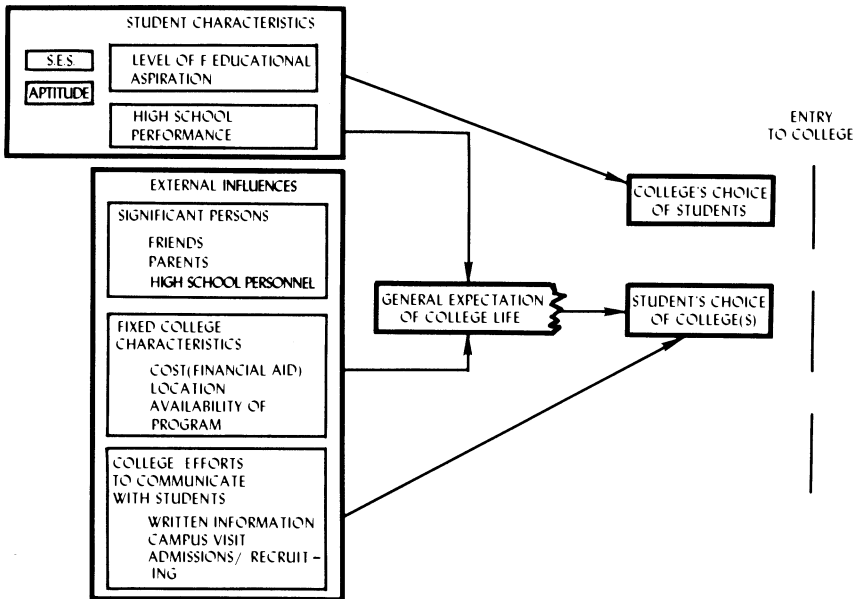


FIG. 1. Influences on Student College Choice

has described as the “freshman myth.” Each of the components of this general model will be described.

Student Characteristics

Socioeconomic status. The importance of SES is manifest in rather complex ways. Students from families of different socioeconomic status not only enter higher education at different rates, they also distribute themselves differently across types of colleges and universities [32, 33, 10]. Students from homes with higher SES are more likely to go to four-year colleges and universities than students from homes with average or below average SES [31].

Family income, an important aspect of SES, also operates in a very direct way on college choice as it interacts with institutional cost and financial aid to limit what students believe are their realistic options. Indeed, Davis and Van Dusen [11] report that upper income students appear to prefer private universities, middle income students tend to prefer state universities, and lower income students are apt to prefer community colleges or state colleges and, to a lesser degree, state universities.

Socioeconomic status acts as a backdrop that influences a series of other attitudes and behaviors that, in turn, are related to college choice. For example, SES is positively related to educational aspirations and expectations [24] and GPA [1], both of which are related to college choice.

Aptitude. Aptitude influences high school achievement and performance on the aptitude tests associated with college entrance examinations. Since both of these are used widely by colleges in describing their range of competitive applicants and, eventually, as a basis for screening applicants, students often self-select the colleges to which they apply to reflect what they believe the colleges will consider. Colleges encourage the practice by publishing the test scores and class rank of their entering class and, sometimes, by directly discouraging applications from students with low test scores or with poor high school records.

Moreover students tend to self-select institutions with enrolled students of similar aptitude as themselves [22]. Work by Nolfi [22] indicates that “the attractiveness of educational alternatives first increases with the average quality of other students enrolled in them, peaks at a point where average ability is above the ability of the student in question, and then falls with further increases in average quality.” As Nolfi argues, students do not want to be with others whose aptitude is very different than their own.

Level of Educational Aspiration/Expectation

Educational expectations and aspirations both influence students' college plans, though they operate in different ways. Expectations refer to what a person perceives he or she will be doing or will have accomplished at some future date. It involves an estimate of reality, a judgment about future performance. Aspirations are wishes or desires expressing an individual's hopes about the future [1]. While considerable research has related level of educational aspirations and expectations to students' decisions to go to college, considerably less research has investigated these influences on their choice of the particular institution to attend. However, the findings that are available suggest these issues are related to college choice. For example, Tillery [31] reports that more high school students who report a definite confidence in their college ability go to independent private or Catholic universities. This also holds true for students who aspire to graduate study.

Educational expectations and aspirations are also moderately correlated with high school performance as measured by GPA [32]. Brookover, Erickson, and Joiner [1] report a correlation between expectations and eleventh grade GPA of 0.30, and a correlation of aspiration and eleventh grade GPA of 0.23. As pointed out earlier, GPA eventually operates to limit the range of institutions students will consider or that will consider them.

High School Performance

High school performance is one of the more explicit bases on which colleges accept or reject students. Colleges often describe the type of student they attract in terms of those students' high school GPA or rank in class. Prospective students, in turn, use this information in judging whether a particular college would be of interest to them [23]; for example, the level of competition they expect to encounter, the aptitude of students they would meet, their chances of admission.

High school performance may also trigger a whole set of other responses to the student that, in turn, help shape college choice. For example, students with good academic records receive more encouragement to continue their education from teachers, family, and friends. They are more apt to receive college advising from the guidance counselor [6], and they are more apt to receive college scholarships.

Significant persons. In selecting a college, students are strongly persuaded by the comments and advice of their friends and family. The influence of these groups operates in three ways: (1) their comments

shape the student's expectations of what a particular college is like; (2) they may offer direct advice as to where the student should go to college; and (3) in the case of close friends, where the friends themselves go to college will influence the student's decision.

In several studies conducted at individual institutions, first year college students report the comments and college choices of their friends were most important in their own college decision [7]. However, several large studies of high school students in the midst of choosing a college suggest the influence of parents is really of greater impact. The 1966 SCOPE seniors [31], asked to name the most helpful person whom they had consulted about the choice of college, indicated (in percent of students responding):

parents	43 percent
counselors	22 percent
other students	16 percent
teachers	10 percent
college admission officers	9 percent

Indeed, even after controlling for differences due to SES, parents appear to exercise the greatest influence on students' future plans [33]. Within that, students with more extensive educational goals are more concerned about working out with their parents which college to attend [32]. Tillery and Kildegaard [32] also note that perceptions of the cost (affordability) of the college affect the parents who then reflect that factor in their influence on the student.

Relatively Fixed College Characteristics

Location, costs, campus environment, and the availability of desired programs are included in this model as relatively fixed college characteristics. With the possible exception of location, these characteristics are all within the power of the institution to effect and modify over time, but they are factors that, in the short-term, are relatively stable. For example, implementing a new program usually involves numerous faculty committees, institutional reviews, and often, state approval. Reducing costs is usually dependent on finding other sources of income or cutting programs. The point here is that these institutional characteristics tend to define the institution in the short-term. Even as changes are made (e.g., new programs added), it may take a long time for image and reputation to change with prospective students, their parents, and their guidance counselors. For these reasons, the follow-

ing variables are included in the model as relatively fixed characteristics.

Cost. Tillery and Kildegaard [32] suggest that cost is probably more of an influence on whether or not a student goes to college than on which particular college he or she attends. Research by Mundy [21] tends to support Tillery and Kildegaard's claim. While students tend to sort themselves (or be sorted) among colleges on the basis of family income, there is a surprising lack of relationship between family income and cost of college attended [21]. This may mean that the stratifying variable is not the cost of college but social background or family income of the students who attend.

However, other research suggests that cost does make a difference in college selection. For example, Davis and Van Dusen [11] found that cost was one of the major reasons why students did not attend the particular institution or college of the institutional type they preferred. Ihlanfeldt [15] estimates that at least 70 percent of all college students are receiving financial assistance to help offset cost and that without this assistance, a high percentage of students would be severely restricted in college choice. Indeed, in studies of students' reasons for college choice conducted at individual institutions, students frequently identify cost as important in their decision.

Though there is conflicting research about the influence of cost (1) cost needs to be considered in the larger model of college choice and (2) it cannot really be considered separately from the influence of financial aid.

Financial aid. The influence of financial aid is one of the most widely researched issues in college choice, largely because it has such direct implications for institutional, state, and federal policy. These research efforts were accentuated further by the passage of the Higher Education Amendments of 1976, which reorganized financial aid to channel funds directly to the student rather than the institution. Hence, identifying the particular influence of financial aid in college choice has been a primary interest of many of the previous models.

If costs pose an obstacle to college going, financial aid is supposed to reduce or eliminate the problem. Ideally, once the family financial contribution has been determined through a financial aid formula, it should not vary from college to college. Differences in costs among colleges should be absorbed by the respective financial aid offers from those schools. The expected family contribution would be the same whether the student goes to Yale or the local branch of the state college.

Hence, financial aid is supposed to increase students' college choices, at least so far as cost was the constraining factor.

Much of the research on financial aid has examined issues of equity and adequacy in the computation of financial need. More recently, several studies have examined the packaging of financial aid (i.e., the relative proportion of scholarship, loan, and campus employment) as it affects persistence in college or the likelihood of the individual pursuing graduate education [2, 26, 25]. Additionally, several researchers have tried to predict how enrollment patterns might shift from changes in federal aid policy [23, 30]. For example, in 1974 Leslie and Fife anticipated that a shift from institutional to direct student support would (1) increase the number of persons going on to college and (2) redistribute students to the private, the non-two year, and the smaller institutions [19]. With the passage of the Higher Education Amendments of 1976, much of their expectation was born out in fact. More recently, Tierney, Houang, and Henson [30] argue that increasing federal student aid, for males, increases the likelihood of their enrollment in private colleges and universities. The authors are less clear about its impact on female students.

Location. Over 50 percent of entering freshmen attend colleges within fifty miles of their home; 92 percent attend college within five hundred miles of their home [15]. Indeed, in the SCOPE analysis of high school seniors in California, 50 percent regarded location as a major influence in their choice of a college [31]. However, proximity to home is, in turn, influenced by the number of educational alternatives in the geographical area. Hence, prospective students in an area with many colleges are less apt to travel as far to college as prospective students in a rural area without many colleges. Students' geographical mobility is affected further by academic ability and family financial strength [15]. High ability students with no financial need consider a wider range of colleges than less able students who need financial assistance. High need, low ability students are least mobile.

Availability of desired courses program. Students select colleges in which they believe they can get the courses they need to enter graduate school or to get jobs. Indeed, the courses that are available and the benefits they will derive from those courses are the most important characteristics students look for in choosing a college [7, 11]. This is particularly true in professional and other somewhat specialized areas of training (e.g., architecture) and least true in content areas that are widely available (e.g., liberal arts).

College Efforts to Communicate with Students

So far, the model has identified factors that influence students' college choice but are either highly resistant or impossible to change. Costs can be lowered or the availability of financial aid increased, but this usually requires new sources of revenue for the institution or changes in federal financial aid policies. New academic programs can be implemented, but seldom quickly. Consequently, one of the first responses of a college concerned about its enrollment is to review the way it identifies and recruits prospective students.

One reflection of this more intense competition is the growing use of a marketing approach in admissions [15, 20, 18]. Several authors argue that, through the systematic application of marketing principles, a college can attract students who might otherwise not consider that institution. The marketing approach advocates (1) research on current and prospective students and on the institution's market position (e.g., its standing relative to its competition on such things as program offerings, quality of facilities, and campus ambience); (2) development of a market plan; and (3) development of new strategies involving both programs and the communication process [15]. The application of marketing principles to higher education has been discussed in considerable detail by Ihlanfeldt [15] and Kotler [18].

The application of marketing principles that have worked in other sectors of the economy offer promise for colleges worried about enrollments. Still, there is very little research that actually documents its effectiveness in attracting students to make college choices they might not otherwise have made.

What research is available has centered on the information seeking activities of college-bound students or, alternatively, the effectiveness of specific college recruiting techniques in attracting students. For example, Tillery and Kildegaard [32] report that information gathering on the part of high school seniors is positively related to their educational aspirations. That is, students who expect to go on to college are more apt to actively seek out college information. On the other side of the equation, high school visits by college admissions representatives and campus visits by prospective students are considered the most effective recruiting activity by both college admissions officers and high school guidance counselors [13].

General Expectations of College Life

A substantial amount of research has investigated students' expectations of college. Work by Stern [28] indicates that many students enter

college with unrealistic expectations of the college environment, a phenomena he refers to as the "freshman myth." College-bound high school seniors, regardless of the institution they expect to attend, share a highly stereotyped, idealized image of college life, an image not representative of any actual institution [5, 28]. As Stern describes it: "[Students] are badly misinformed about the extent to which their college is organized rationally to achieve its various ends, expecting it to be a lot more consistent than any college in fact is. And they are even more poorly informed about the composite character of the school" [28, p. 173]

While some authors have speculated on the origin of these unrealistic expectations, the research is not at all clear as to their source [5, 31, 28]. However, college information gained through high school experiences, the influence of significant other people, and the colleges' own efforts to communicate with prospective students appear to get filtered by these generalized, idealized expectations. Consequently, even available, accurate information may be ignored or distorted by the student. College decisions may be based on stereotypes rather than careful discrimination of the likely student experience at different institutions. The influences on college choice described by this model may be affected by this "freshman myth," hence, it needs to be considered as a mediating influence in the model.

Summary of the Model

The combined and interactive effects of the factors identified in this model influence and shape students' college choice. College choice depends on student characteristics and external influences. The external influences, in turn, are composed of significant persons, characteristics of the college, and the institution's own efforts to communicate with prospective students. As a result of these influences, the college-bound student will apply to one or more institutions. Certainly other, individual, idiosyncratic influences may also operate on students' college decisions. The model does not exhaust the possibilities of influence, but it does identify the major factors to be considered. Colleges reviewing their recruitment strategy need to understand these multiple influences affecting the prospective student. Researchers concerned with college choice must recognize the complexity of college choice in deciding which variables they will investigate, which they will control, and which they will ignore.

Operating under the combined influence of the factors described in this model, students select and make application to a college. The col-

lege, in turn, decides whether or not to admit the student. Failure to be admitted sometimes but not always means that the student's selection of the college was inappropriate or unwarranted. Indeed, students may be rejected from colleges in which they would be well suited. Admissions depends on who and how many others apply in the same year to the same college. It depends, also, on the idiosyncracies of the admissions review process in which rather substantial decisions (for the applicant) may be made on rather scant evidence. The essential test of the model is not whether students get accepted, but, rather, given the open opportunity, where they choose to attend college.

The Influence of Printed Recruitment Materials

The second purpose of this article is to review recent research relevant to one aspect of the model: the influence of printed recruitment literature on student's college choice. This topic is of particular concern because these materials have come under considerable criticism from both educators and the federal government [9]. The concern is that students may be basing college choices on incomplete or inaccurate information from the colleges. This has prompted new mandates in federal legislation and regulations specifying information colleges must share with students [4]. It also has resulted in several national projects to assist colleges in improving the information they provide to prospective students [12, 9]. While many believe these activities are justified on ethical grounds (e.g., students have a right to full disclosure in a contract for services), many educators are skeptical about the likely impact of improved printed materials on students' actual college decisions. Many question whether prospective students even read the material they receive from colleges, much less make decisions based on it. Before moving to improve a college's printed information, many college administrators want to know if printed materials make any difference in student's college choice.

Studies that have investigated the influence of printed materials on students' college choice have generally employed survey procedures and are generally of three types: (1) how admissions professionals view the effectiveness and accuracy of printed materials, (2) the importance college students assign to these materials, and (3) evaluations of the materials themselves. A fourth type of investigation, an experimental design in which colleges would randomly assign different printed materials to students, was proposed but proved unworkable [8]. Recent studies within each of the first three categories will be reviewed.

Studies of admissions professionals. During 1978–79, Project CHOICE, in cooperation with the National Association of College Admissions Counselors, surveyed college admissions officers and high school guidance counselors in over thirteen hundred institutions [13, 14, 17]. Both groups rated the effectiveness of commonly used recruiting activities, the accuracy of the information students received through those activities, and which activities they thought students relied on most in choosing a college. Among the findings:

1. The mailing of catalogs to interested prospective students is the single most widely used recruitment activity.
2. College catalogs are rated by both admissions officers and guidance counselors to be the single most accurate source of college information for students.
3. The mailing of catalogs and informational brochures, upon request, is considered by both groups to be among the five admissions practices students rely on most in making a college decision.
4. During the next ten years college admissions officers expect to rely increasingly on the direct mailing of printed materials in recruiting prospective students.

The importance students assign to printed materials. Most studies of the importance of printed materials to the students who actually receive them have been single institution studies that vary in both quality and scope. One study, conducted by Chapman and Johnson [7], interviewed freshmen at one state university in Indiana. While it was a small study, their results are similar to the results of other studies on this topic. Students indicated they did not select a college based on reading its printed information. Rather, they were more persuaded by cost, where their friends decided to go to school, and the availability of desired programs. Students reported that they read the printed materials primarily to confirm decisions they had made already on other grounds. This may still be important since many colleges lose students between the time the students are accepted and must actually arrive on campus. However, students do not describe the impact of printed materials to be as positive as did the admissions professional. In addition, students in the upper third of the college entrance examination scores are apt to receive unsolicited materials from fifty to seventy-five colleges. Students report they do not know how to process or evaluate that much information. Much of it ends up in the wastebasket, unread.

Evaluation of the printed materials. A recent study by Johnson and

Chapman [16] investigated (1) the reading difficulty level of a national sample of college recruitment literature and (2) the ability of college-bound high school students to understand the terminology frequently used in college admissions. The authors' found that the average reading level of the materials they examined was appropriate for an advanced college student or college graduate. Further, differences in the type of information being presented (admissions, financial aid, academic policy) did not appear to result in differences in reading difficulty. Likewise, catalogs from all types of institutions (community college, liberal arts college, comprehensive college/university, research university) were written at a level too difficult for their clientele. The results of an admissions terminology quiz administered to college-bound high school students suggested that students had considerable difficulty identifying the correct use of terms commonly found in sections of college catalogs.

These studies, considered together, suggest that admissions professionals are considerably more positive about the impact of printed recruitment materials than students appear to be. Prospective students do tend to read the printed materials they receive, though the impact of those materials comes rather late in the college selection process, usually to confirm a decision made on other grounds. It is possible, of course, that these recruitment materials would have greater impact if they were written at a level and in a vocabulary more appropriate for the intended audience. As suggested earlier in the description of the model, perhaps the enthusiasm expressed by the admissions professional is because the printed materials are most directly within their control. In relationship to the other factors in the model of college choice, the printed materials colleges send to prospective students appear to have only moderate influence on students' college selection. The impact might be increased by improving and targeting the materials themselves or using the printed materials within a strategy that recognizes and builds on the other influences also understood to impinge on students' decisions.

Summary

At a time of intense competition for students, many college administrators are operating from an incomplete understanding of the multiple influences that affect students' college choice. This has often resulted in undue faith in the ability of a college to attract students merely by modifying the institutional self-description or the targeting of its re-

cruiting. This article presented a model of college choice applicable to traditional age prospective students. The choice of which college to attend is influenced, first, by the background and current characteristics of the student and the student's family and, second, by a series of external influences. These include the influence of significant persons, the fixed characteristics of the college, and the institution's own efforts to communicate with prospective students. A fuller understanding of these multiple influences can help college administrators chart recruitment strategy. The model also provides a framework for continued research on college choice. The second portion of the article reviewed recent research on one aspect of the model, the influence of printed recruitment on students' college choice. These materials do influence students' college decisions, but not to the extent or in the way college admissions officers or high school guidance counselors believe. Moreover, the printed materials often are not written at a level or in a vocabulary students understand.

References

1. Brookover, W. D., E. L. Erickson, and L. M. Joiner. "Educational Aspirations and Educational Plans in Relation to Academic Achievement and SES." *The School Review*, 75 (1967), 392-400.
2. Brown, K. G. "Dropout Rates: A Longitudinal Analysis of Student Loan Users Compared With Users of Other Forms of Financial Assistance." Paper presented at the annual meeting of the Association for Institutional Research, 1980.
3. Carnegie Council for Policy Studies. *Three Thousand Futures: The Next Twenty Years in Higher Education*. San Francisco: Jossey-Bass, 1980.
4. Chapman, D. W. "Improving Information for Student Choice: The National Effort." *National ACAC Journal*, 23 (1979), 25-26.
5. Chapman, D. W., and B. Baranowski. "College Expectations of Entering Freshmen Who Completed College Courses During High School." *Journal of College Student Personnel*, 18 (1977), 188-94.
6. Chapman, D. W., and S. J. Gill. "College Advising: Current Perceptions, Future Directions." Ann Arbor, Mich.: Project CHOICE, School of Education, University of Michigan, 1980.
7. Chapman, D. W., and R. H. Johnson. "Influences on Students' College Choice: A Case Study." Ann Arbor, Mich.: Project CHOICE, School of Education, University of Michigan, 1979.
8. _____. *Project CHOICE: Final Report*. Submitted to the Fund for the Improvement of Postsecondary Education, grant no. G007804724. Washington, D.C., 1980.
9. Chapman, D. W., and J. S. Stark. "Does Truth Have Consequences? Improving Information for Better College Choice." *Liberal Education*, 65 (1979), 453-61.

10. Cross, K. P. "Access and Accommodation in Higher Education." In *The White House Conference on Youth*. Berkeley: Center for Research and Development in Higher Education, 1971.
11. Davis, J. S., and W. D. Van Dusen. "A Survey of Student Values and Choices: A Pilot Study of the Relationships of Student Values, Perceptions, and Choices of Institutions." New York: College Entrance Examination Board, 1975.
12. El-Khawas, E. *Better Information for Student Choice: Report of a National Task Force*. Washington, D.C.: American Association for Higher Education, 1977.
13. Dominick, C. A., R. H. Johnson, D. W. Chapman, and J. V. Griffith. "Effective Admissions Practices: A National Survey." *National ACAC Journal*, 24 (1980a), 19-24.
14. _____. "College Recruiting in the Next Ten Years." *National ACAC Journal*, 24 (1980b), 2-7.
15. Ihlanfeldt, W. *Achieving Optimal Enrollments and Tuition Revenues*. San Francisco: Jossey-Bass, 1980.
16. Johnson, R. H., and D. W. Chapman. "An Assessment of College Recruitment Literature: Does the High School Senior Understand It?" *Research in Higher Education*, 11 (1979), 309-19.
17. Johnson, R. H., D. W. Chapman, C. A. Dominick, and J. V. Griffith. "Admissions Office Staffing and Policies: How Do You Compare?" *National ACAC Journal*, 24 (1980), 10-13.
18. Kotler, P. *Marketing for Nonprofit Organizations*. Englewood Cliffs, N.J.: Prentice-Hall, 1975.
19. Leslie, L. L., and J. D. Fife. "The College Student Grant Study: The Enrollment and Attendance Impacts of Student Grant and Scholarship Programs." *Journal of Higher Education*, 45 (December 1974), 651-71.
20. Litten, L. H. "Market Structure and Institutional Position in Geographic Market Segments." *Research in Higher Education*, 11 (1979), 59-83.
21. Mundy, L. A. "Impact of Educational Development, Family Income, College Costs, and Financial Aid in Student Choice and Enrollment in College." Research Report 77. Iowa City: American College Testing, 1976.
22. Nolfi, G. J. "In Transition: Post-High School Experiences of American Youth." In *Using Longitudinal Data in Career Counseling*, edited by L. C. Solmon et al. New Directions for Education Work and Careers. San Francisco: Jossey-Bass, 1979.
23. Nolfi, G. J., W. C. Fuller, A. J. Corazzini, W. H. Epstein, R. B. Freeman, C. F. Manski, V. I. Nelson, and D. A. Wise. *Experiences of Recent High School Graduates*. Lexington, Mass.: D.C. Heath, 1978.
24. Rehberg, R. A. "Adolescent Career Aspirations and Expectations: Evaluation of Two Contrary Stratification Hypotheses." *Pacific Sociological Review*, 10 (1967), 81-90.
25. Sanford, T. R. "Residual Effects of Self-Help Aid on the Lives of College Graduates." *Journal of Student Financial Aid*, 9 (1979), 3-10.
26. _____. "The Effects of Student Aid on Recent College Graduates." *Research in Higher Education*, 12 (1980), 227-43.
27. Stark, J. S. *The Many Faces of Educational Consumerism*. Lexington, Mass.: D.C. Heath, 1977.

28. Stern, G. G. *People in Context*. New York: Wiley, 1970.
29. Tierney, M. L. "The Impact of Financial Aid on Public/Private Postsecondary Education: Some Policy Implications." Paper presented at the annual meeting of the Association for the Study of Higher Education, Washington, D.C., 1979.
30. Tierney, M. L., R. Houang, and J. Henson. "Alternative Estimation Procedures for Studies of Student College Choice Behavior: A Cross-Validation Analysis." Paper presented at the annual meeting of the American Educational Research Association, San Francisco, 1979.
31. Tillery, D. *Distribution and Differentiation of Youth: A Study of Transition From School to College*. Cambridge, Mass.: Ballinger, 1973.
32. Tillery, D., and T. Kildegaard. *Educational Goals, Attitudes and Behaviors: A Comparative Study of High School Seniors*. Cambridge, Mass.: Ballinger, 1973.
33. Trent, J. W., and L. L. Medsker. *Beyond High School*. San Francisco: Jossey-Bass, 1969.