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COLLEGE AND UNIVERSITY

JAMES C. BLACKBURN, The University of Northern Colorado,
Editor

(Additional information about COLLEGE AND UNIVERSITY appears on the inside back cover.)
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The Marketing of Higher Education

GEORGE BROOKER AND MICHAEL NOBLE

INTRODUCTION

MOST WELL-MANAGED ORGANIZATIONS today, whether profit or nonprofit, recognize the importance of implementing formal marketing programs. However, despite the efforts of many scholars and consultants who have called for the development of formal marketing programs in educational institutions (e.g., Kotler, 1982; Knight and Johnson, 1981; Berry and Allen, 1977; and Fram, 1979), marketing does not appear to be widely implemented or well understood by these institutions (see Noble and Rife, 1982). Many higher education administrators identify marketing as merely selling or promotion. This is not just unfortunate — for some colleges and universities it may weigh heavily on their survival. Competition in higher education for the declining num-
ber of students and reduced resources is growing and will grow even more. As many organizations have found out to their regret, in highly competitive markets it is not sufficient to have a good product, it is critical to also “market” well. Many colleges and universities will undoubtedly learn this lesson too late.

The purpose of the article which follows is to: (1) review why marketing is important to any organization; (2) explain why colleges and universities have problems with implementing formal marketing programs (identifying and understanding a problem is a major step towards its solution); and (3) suggest specific solutions to these problems.

MISUNDERSTANDING MARKETING

Marketing is concerned with the exchange activity between organizations and society. When defined in the broadest possible context, all exchanges between organizations and society involve some product/service, price, promotion and a place where exchange occurs (these, as they relate to higher education, are carefully reviewed in the next section of this paper). Marketing has developed processes for making these exchanges more effective and efficient for both buyer and seller. To assume marketing is merely selling or merely promotion is not only to misunderstand the concept or marketing — it also makes the long-run survival of the organization unlikely. Merely selling or merely promoting may bring short-run benefits to organizations that practice this; but ultimately society catches on, and competing organizations which truly understand marketing develop exchange processes that satisfy both buyer and seller more effectively and efficiently — driving the merely selling or merely promoting organization from the market.

In the past, when exchange processes were far simpler, a management philosophy of letting “exchange” take care of itself may have been reasonably successful. However, we no longer live in the past, and organizations cannot rely on their traditional ways of doing business. Formal marketing programs are now a vital part of well-managed organizations. Organizations which ignore marketing are in effect saying, “managing our exchange processes is of minor importance.” Despite the fact that this is so obviously wrong, most institutions of higher education do not have formal marketing programs — why?
COMPLEXITY OF THE MARKETING MIX

One reason for the lack of formal marketing programs at most educational institutions is the unusual complexity of the marketing mix (product/service, price, promotion and place) and the number of diverse groups that have input into its components.

The product/service of higher education is more than just a degree, since colleges and universities may provide: consulting expertise, service programs for special groups (e.g., agricultural extension services), knowledge development (through faculty research and publication), recreational and entertainment programs, etc. Thus, the university's "product" is much broader and more complex than the product of most traditional business organizations.

The university's price (or revenue) also is broader than tuition received. Tuition payments would not keep many colleges and universities operating long, for in few cases (if any) will tuition cover 100 percent of the operating costs. Other sources of funds to be considered in the price include government subsidies, alumni donations, grants and gifts, and (in the case of private schools) tax relief.

Promotion occurs not just in traditional forms, it is found in presentations to luncheon groups, visitations to high schools by recruiters, brochures of adult education offerings mailed to residents in the community, alumni magazines, and in the publicity generated by athletic programs, cultural offerings, and the like.

Even the place element has components not widely recognized. In addition to the campus, the place component is represented in any location where university services are delivered, including extension services (which may be many miles from the campus), the hearing rooms of state and federal government agencies (through expert testimony offered by faculty and administrators), on athletic fields and in performing arts centers distant from the campus (through traveling athletic teams, choral groups, faculty art exhibits, etc.), in "satellite" locations, and so forth.

In the typical business, marketing management is responsible for formulating the marketing mix. In an academic institution, this is the responsibility of the faculty where curriculum matters are concerned; of individual faculty members for the development of knowledge and consulting expertise; of administrators and faculty jointly for service programs; of athletic director, coaches, choral di-
rectors, and others; for recreational and cultural programs offered by the institution and so forth. Such diversified decision making suggests that different criteria will be involved in developing the several elements of the marketing mix with the distinct possibility of a lack of consistency. A lack of consistency holds the potential for presenting a blurred image to target groups. The problem of the complexity of the mix is, therefore, compounded by the number of people who have inputs into its components.

The solution to the complex marketing mix problem is a well-developed, comprehensive marketing program that is carefully communicated throughout the institution. Because of the complexity of the marketing mix, the tightly structured marketing programs, possible in many businesses, may be impractical. There is no perfect answer to this problem; however, a statement of the general marketing program of the institution and identification of the market(s) they are serving clearly communicated throughout the institution can provide a significantly unifying force. Markets change and organizations must change to meet their needs. Although this may seem a restatement of the obvious, how many colleges and universities systematically examine how their market has changed and plan how they must change in order to continue to meet the market's changing needs and wants? The necessity of a communicated marketing program will be a repeated theme throughout this paper.

FUNCTIONS OF A UNIVERSITY MARKETING OFFICER

A second reason formal marketing programs have not been implemented at many colleges and universities is because the traditional functions of a marketing officer (authority over the analysis, planning, implementation and control of the exchange processes) have been seen as inappropriate by most colleges and universities. A basic conflict exists because in marketing there is a need to coordinate the various elements of the exchange processes so that product/service, price, promotion and place are carefully tailored to fit market needs. The multiple points at which decisions are made affecting the offerings of a university almost invariably make it difficult to coordinate and direct a comprehensive marketing program. Rarely could any individual hope to make decisions which would satisfy a university community accustomed to directing its own activities.

Management theorists in organizational design recognize similarities between some problems of institutions of higher education
and the problems of complex industrial organizations. That is, similar to colleges and universities, they must cope with: (1) high task uncertainty; (2) diverse goals; and (3) a rapidly changing environment. In dealing with these problems, industrial firms have developed specialized departments that are highly differentiated in terms of both organization and behavioral attributes. The activities of these specialized departments must then be integrated in order to achieve the overall objectives of the firm. This need to integrate the separate, yet interdependent, activities of the firm is a familiar problem in the management of industrial organizations.

As Galbraith points out (1977, p. 180), "Most of the research on dealing with integration problems pertains to industrial organizations, but with substitutions of appropriate categories, the results can be applied to non-commercial organizations as well." In short, institutions of higher education can borrow management techniques developed by complex businesses and apply them to their own needs.

The solution to the traditional marketing officer problem in higher education is to have marketing officers performing in integrative rather than authoritative roles. Borrowing heavily from management theorists such as Galbraith (1977) and Lawrence and Lorsch (1967), the major functions of the marketing officer at the college or university would include:

1. Working closely with upper-level administration in establishing marketing plans of the college or university.
2. Helping identify appropriate program direction within schools and departments so their goals and objectives agree with the broader marketing goals and objectives of the university as a whole.
3. Facilitating decision making between schools and departments to help coordinate marketing programs.
4. Communicating across specialties — integrators must "speak the language" of the schools and departments with which they interact.

Although the marketing officer's role as integrator should be formally identified so his or her activities are seen as legitimate, the type of influence should be persuasion rather than authority. The research of Lawrence and Lorsch (1967, p. 145) indicates that, "In-

1Emphasis supplied.
Integrators need to be seen as contributing to important decisions on the basis of their competence and knowledge, rather than on their positional authority."

It must be recognized in advance that there are some things which cannot be affected. An individual faculty member involved in a stream of research is not likely to abandon it or adopt a new one merely to please the marketing officer. Consulting activities, publication activities, and the like, similarly, will be resistant to change. This is not to say that a faculty member cannot be persuaded to undertake a new, promising line of research; it is possible. But the likelihood of a marketing officer being highly knowledgeable about promising individual research (consulting, publication) results in a variety of fields is slim, and faculty members will move reluctantly because of start-up costs involved.

At the group level, things seem a bit easier. A marketing officer should be present in an advisory and integrating capacity on committees whose actions affect elements of the marketing mix. A marketing officer also should stand in an advisory capacity to the faculty senate and in general faculty meetings. It is imperative that a marketing officer's voice be heard in these settings. It is here that a marketing officer's persuasive ability will be used to shape the outlines of many components of the marketing mix.

A marketing officer's responsibility in these settings is to bring knowledge about the various audiences the university reaches, and how they are apt to respond to the actions being considered by university bodies. He or she must provide an input to the deliberations and must listen to the needs and concerns being expressed by university bodies. A marketing officer's creativity, as well as persuasive power, will be tested in suggesting alternatives which will be acceptable to university bodies and consistent with the overall marketing plan of the institution.

Some readers will recognize that, ultimately, the president of the university has the responsibility for orchestrating these matters which we have discussed. Without denying the truth of this, it should be tempered by the observations of Lovelock and Weinberg (1978) that many top administrators are not especially interested in marketing and see it merely as a tool for fund raising and admissions rather than as a fundamental concept underlying the management of the entire institution. Thus, it is important to appoint
an integrative marketing officer to help develop, coordinate and communicate a comprehensive marketing plan.

**UNIQUE QUALITIES OF ACADEMIC INSTITUTIONS**

A third reason for the lack of formal marketing is the overall uniqueness of institutions of higher education. There are relatively few similar industries or organizations after which universities can directly pattern formal marketing programs.

As Bok (1982) has pointed out, colleges and universities are like few other organizations. Authority is shared rather than concentrated. Individual professors are largely immune from administrative control by virtue of the doctrine of academic freedom; and, acting collectively, can determine admissions requirements, curriculum, and the search for new professors. Alumni, through the board of trustees and their contributions or threatened lack thereof, can influence direction. Legislatures, in their approval or disapproval of the budgets of public universities and other government agencies, have the power to determine development. Even students can shape policy by choosing whether or not to attend a particular college or university. Colleges and universities are simply not like other economic organizations.

Thus, academic freedom, individual autonomy and decentralized decision making characterize most institutions of higher learning. Groups, not directly related to the administrative process, can apply substantial pressures to shape the institution to their liking. Consider this one example: alumni donations even in the most prestigious colleges and universities in this country are correlated with the success of the football program (Brooker and Klastorin, 1981). In such an environment, developing a focused, cohesive consistent marketing program is a difficult task.

In addition, there is a fundamental issue which must be addressed in attempting to bring a marketing orientation to a college or university. The marketing orientation requires a focus on the consumer. But, who is the consumer? A university serves a host of client groups which have different needs, different expectations and, often, different value systems. It interacts with even more groups. The variety of activities found in a college or university suggests that many groups will find some portion of their interests served. It is possible, even likely, that some groups which could become strong supporters of the university have not yet been identi-
fied. This is especially true as universities broaden their activities even more. Although individuals or departments may deal with particular client groups, it takes an individual knowledgeable about all such groups and able to plan an integrated marketing program to meet varied and changing needs. The solution to the uniqueness problem is a higher education marketing officer using the unifying force of a well-communicated marketing program. The approach is one of working with the qualities of the institutions of higher education to develop carefully a marketing mix that uses the strength of their uniqueness to meet the needs and wants of present and future consumers.

SUMMARY

The difficulty of the task facing marketing in higher education has been aptly stated by Lovelock and Rothschild (1980, p. 46):

... remaining sensitive to the short-term needs and concerns of students and other constituencies ... without undercutting the institution’s evaluation of broader societal needs and its own long-term sense of mission.

This is a complex task for any single individual. Formal marketing programs at colleges and universities are especially challenging to develop and to implement because of factors such as the complexity of the marketing mix, the perceived inappropriateness of a traditional marketing officer, the number of diverse groups that have inputs into the components of the mix, the uniqueness of higher education institutions, and the difficulty in identifying the consumer(s) of higher education.

Ideally, the solution to these problems is the appointment of a marketing officer who is responsible for working closely with upper-level administration to develop a comprehensive marketing program and communicating (in the broadest sense of this word) this program throughout the institution. However, it would be shortsighted if we did not recognize this solution may be unpalatable to many college and university administrators and faculty members. Despite the fact all colleges and universities do market (whether or not they wish to recognize this fact), and a well-managed marketing program may be critical to their survival, a visible marketing administrator and publicly acknowledged marketing program may be unacceptable to some.
There are a number of alternatives which colleges and universities might use to implement formal marketing programs gradually (and, hopefully, more acceptably). One alternative is to have a marketing officer operate at a less visible staff level working with and advising upper-level administrators in the development of marketing programs. A second alternative is to hire marketing consultants to assess the marketing activities of the college or university and propose changes in these activities where and when appropriate. In conjunction with either alternative, the college or university could conduct marketing workshops to introduce both administrators, staff and faculty to marketing concepts. “Marketing” is a whole new set of concepts and vocabulary for many academicians, and the acceptance and development of formal marketing programs may be gradual and evolutionary at many colleges and universities.

This is not an exhaustive list. There are a number of different approaches for introducing marketing to higher education (see, for example, Kotler’s 1979 article on “Strategies for Introducing Marketing into Nonprofit Organizations”). The task of implementing formal marketing programs at institutions of higher education is formidable but not impossible. Those institutions which commit themselves to the management of their exchange processes are far more likely to survive and prosper than those who lightly let exchange processes take their own course.

REFERENCES


Determining the Needs and Attitudes of Non-Traditional Students

Michael Hu

In face of declining enrollments, college administrators seek ways to attract non-traditional students in the 25 to 64 age group. The population of this group, according to national statistics, has been increasing steadily in size. Also, the enrollment percentages in colleges have risen substantially in the last five years. The question still remains: are the needs and expectations of these non-traditional students being satisfied by the current offerings of courses and programs? Furthermore, with a clear understanding of these needs, can additional demand/enrollment be stimulated by a marketing program?

High attrition rate in the programs already offered to the adult segment demonstrates the lack of a coordinated effort on the part of the universities to understand the educational needs and wants to this particular segment. It has also been reported that most colleges have not fully adopted the marketing approach to college admissions. The lack of a comprehensive, fully integrated marketing plan seems to be most prevalent in many of the colleges. The non-traditional students are older, their schedules are busier and their needs are more diverse than those of their counterparts a decade ago.

A clear understanding of the needs of the marketplace is crucial to an effective marketing program (Kotler 1984). Product and service marketing share this same focal point in the development of an
effective program (Lovelock 1984). The authors of recent studies of higher education (Pennington 1980, and Kimerer and Schroeder 1983), have begun to investigate this problem.

PURPOSE OF THIS STUDY

The objective of this study is to provide a detailed investigation of the reasons/needs and attitudes of the adult learners towards higher education in the Northeastern Ohio area. Knowledge of the needs/attitudes can be used as inputs for marketing program development.

MEASUREMENT INSTRUMENT

The non-traditional student market can be categorized into three sub-segments: current, prospective and non-prospective students. Those actively taking courses at the time the study was conducted were designated as the first group. The latter two groups classification guideline was based on respondents' answers to the question “how likely they are to enroll in a program within the next twelve months.” Prospective students are composed of those who responded “very likely” or “likely” and non-prospective students responded “not likely” or “not likely at all.”

To measure the reasons for attending/not attending colleges/universities, the current/prospective students were requested to identify the most important reason among eight items being presented: 1. for education sake; 2. required for current employment; 3. need academic credentials for career advancement; 4. keeping up with new knowledge; 5. currently unemployed and need training for future employment opportunity; 6. for career change; 7. for expanding my social activities and 8. other. Reinforcing the dominant needs/reasons from a marketing perspective would lead to further stimulation of the demand for educational services. The non-prospective students were asked to select the most important reason for not attending: 1. admission standards are too high; 2. living too far from college/university; 3. just not interested; 4. do not have time at all; 5. tuition fee is too high; 6. do not need more education and 7. other. Presumably, removal/correction of any of these reasons might result in changes in attitudes and eventually in behavior.

The general image of higher education as perceived by non-
traditional students was being assessed by posing a set of twenty-nine attitudinal questions measured along a five-point scale of importance where "1" indicated not important at all to "5" very important. Knowledge of how the services are being perceived, provides the university or college a good fundamental understanding of the needs of these students.

The author developed these 29 items for measuring attitudes by reviewing literature (Krampf and Heinlein 1981, Heinlein and Krampf 1977, Adolph and Whaley 1967, Blunt 1983 and Goodnow 1982) and interviewing administrators. This survey instrument was validated by a jury of seven professors, researchers and administrators of adult education at five different major institutions in N.E. Ohio. The revised version of the instrument was again pretested by using two different samples of students — regular day-time and evening/weekend students. Hence, this measurement instrument was considered reliable.

SAMPLE DESIGN

A reputable mailing list company was contacted and provided the opportunity of constructing the frame of the entire population of residential households living in the area. The population of households was first arranged alphabetically by the last names of the heads of households within each zip code area. The zip codes were then sorted. A systematic random sample of names and addresses was generated from this defined universe list. In total, about 7,000 questionnaires were sent and received by residential household heads in N.E. Ohio. Postage-paid and addressed envelopes were included for questionnaire returns. A total of 1,350 questionnaires were returned thus yield a response rate of roughly 20%. After editing and screening out respondents who were not in the 25-64 age group, a final sample of 960 usable questionnaires was retained for analysis.

FINDINGS

The survey reveals that 14 percent of the adults in the sample of 960, indicated they were currently taking courses at a college/university. Thirty-three percent of those who were not attending indicated they were either "very likely" or "likely" to enroll within the next 12 months, and the rest reported "not likely."
Important reasons as given by current and prospective students are shown in Table 1. Most current students have provided either "career advancement" or "career change" as reasons why they were back in school. On the other hand, in addition to these two reasons, prospective students also considered "for education sake" and "keeping up with new knowledge" to be important. In light of rapidly changing technology and job requirements, these findings are not surprising and are very much in support of previous research results in this area.

Results for non-prospective students as shown in Table 2 indicate, "the lack of time" element was by far the most frequently reported reason for not taking classes. Thirty-six percent in this group selected it as the most important factor. Admissions and recruiting officers oftentimes may want to consider building in more flexibility, in the scheduling of courses, and the possibility of classes at the site where the non-traditional students work.

TABLE 1
Important Reasons for Taking Courses

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Current Students</th>
<th>Prospective Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Education Sake</td>
<td>11%</td>
<td>18%</td>
</tr>
<tr>
<td>Required For Current Employment</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Need Academic Credentials For Career</td>
<td>44%</td>
<td>20%</td>
</tr>
<tr>
<td>Advancement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeping up with New Knowledge</td>
<td>8%</td>
<td>26%</td>
</tr>
<tr>
<td>Currently Unemployed and Need For Future Employment Opportunity</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>For Career Change</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>For Expanding My Social Activities</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Percentages do not total 100 due to multiple responses from a small group of respondents.
Respondents in the study were also requested to evaluate a list of twenty-nine attitudinal items which an adult student would consider when deciding which college/university in which to enroll.

**TABLE 2**
Important Reasons for Not Taking Courses

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Non-Prospective Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission standards too high</td>
<td>2%</td>
</tr>
<tr>
<td>Living too far from college</td>
<td>2%</td>
</tr>
<tr>
<td>Just not interested</td>
<td>16%</td>
</tr>
<tr>
<td>Do not have time at all</td>
<td>36%</td>
</tr>
<tr>
<td>Tuition fee too high</td>
<td>15%</td>
</tr>
<tr>
<td>Do not need more education</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
</tr>
</tbody>
</table>

*Percentages do not total 100, due to multiple responses from a small group of respondents.

Table 3 shows the average score of the five-point scale for every attitudinal statement. The data are categorized by current student, prospective student, non-prospective student and total sample. The following items are considered as important (mean score greater than 3.0) by the entire sample:

- High quality professors
- Excellent academic reputation
- Flexibility of program offerings and requirements
- Availability of evening classes
- Easy to commute from work or home
- Safe campus
- Top quality program of study
- Numerous course offerings
- Availability of campus parking space
- Low tuition cost
- Courses are oriented to meet current job market demand
Analysis of variance (ANOVA) was used to detect differences among the three groups. Statistically significant differences ($\alpha \leq 0.10$) were found along eight of the 29 dimensions. Current students rated "excellent academic reputation," "easy commute from work or home," "my family or friend recommended it," and "numerous course offerings" to be more important as compared to the other two groups. On the other hand, the prospective or non-prospective students emphasized more on "required little homework after class," "recent favorable newspaper publicity," "informative university catalog" and "small classes." The implication here is that there are some major differences in attitudes toward the services provided by higher education institutions across the three groups.

### TABLE 3
Mean Scores of Attitudinal Statements

<table>
<thead>
<tr>
<th></th>
<th>Current Student (n = 135)</th>
<th>Prospective Student (n = 272)</th>
<th>Non-Prospective Student (n = 553)</th>
<th>Total Sample (n = 960)</th>
<th>ANOVA F test</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>High quality professors</td>
<td>4.46</td>
<td>4.44</td>
<td>4.45</td>
<td>4.45</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Excellent academic reputation</td>
<td>4.32</td>
<td>4.13</td>
<td>4.16</td>
<td>4.18</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Flexible admission requirement</td>
<td>3.47</td>
<td>3.68</td>
<td>3.62</td>
<td>3.62</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Flexibility of program offering and requirement</td>
<td>3.99</td>
<td>4.05</td>
<td>4.01</td>
<td>4.02</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Required little homework after class</td>
<td>2.57</td>
<td>2.89</td>
<td>2.91</td>
<td>2.85</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Availability of evening classes</td>
<td>4.10</td>
<td>4.07</td>
<td>4.15</td>
<td>4.12</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Feature</td>
<td>Mean</td>
<td>Median</td>
<td>Mode</td>
<td>Standard Deviation</td>
<td></td>
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<tr>
<td>----------------------------------------------</td>
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<td>--------</td>
<td>-------</td>
<td>--------------------</td>
<td></td>
<td></td>
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<tr>
<td>Located in urban area</td>
<td>3.14</td>
<td>2.90</td>
<td>3.01</td>
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<td>Located in suburban or rural area</td>
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<td>3.21</td>
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<td>Availability of weekend classes</td>
<td>3.31</td>
<td>3.43</td>
<td>3.48</td>
<td>3.44</td>
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<td>Easy to commute from work or home</td>
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<td>4.02</td>
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<td>Availability of childcare facility</td>
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<td>2.59</td>
<td>2.56</td>
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<td>Safe campus</td>
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<td>Availability of financial aid or part-time employment</td>
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<td>3.06</td>
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<td>Easy registration procedure</td>
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<td>Close faculty-student association relationship</td>
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<td>Recent favorable newspaper publicity</td>
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<td>2.69</td>
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<td>My family or friend recommended it</td>
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<td>Top quality program of study</td>
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<td>4.26</td>
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<td>Friendly campus atmosphere</td>
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<td>Availability of career and/or academic counseling</td>
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<td>3.83</td>
<td>3.69</td>
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<td>Numerous course offerings</td>
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<td>Availability of public transportation</td>
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<td>Availability of campus parking spaces</td>
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<td>Low tuition cost</td>
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<td>Informative university catalog</td>
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<td>3.80</td>
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<td>Small classes</td>
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<td>3.88</td>
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<td>3.76</td>
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<tr>
<td>Program exactly suiting student needs</td>
<td>3.99</td>
<td>3.96</td>
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<td></td>
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<td>Small college/university</td>
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<td>Courses are oriented to meet current job market demand</td>
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<td>4.22</td>
<td>4.16</td>
<td>4.19</td>
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*Significant at 0.10 level
**Significant at 0.05 level
SUMMARY

The results of the survey have shown that there is substantial demand for higher education in the non-traditional student market. A large percentage of heads of households mentioned they would be very likely or likely to go back to school. Demand for higher education, as indicated in this study, has the potential for being stimulated by establishing separate programs and promotional strategies for each of the three defined market segments. Marketing strategies and programs, though not developed in this research study, can be structured on the basis of the attitudes and motivational orientations of these adult learners.

Students who are currently enrolled put a great deal of value on the quality of a program, and at the same time this group is particularly subject to family and social influence. From a marketing point of view, it would seem imperative to reinforce these attitudes towards higher education. The prospective student group represents roughly 33 percent of those who are not currently in school. These individuals already have a high level of interest in going to college. An appropriate strategy would have to be developed to convert these desires into action.

For the non-prospective students, decisions would have to be made whether it is cost-wise to change their attitudes, and hopefully a behavior change would follow. This group in general has identified items such as financial aid, part-time jobs, child care facility, public transportation, weekend classes and academic counseling to be important. It would be along these lines that higher education institutions should improve their offerings in the marketplace.

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Bolstering Graduate School Enrollments Through Effective Use of Alumni

THOMAS J. JACKSON

PROJECTED ENROLLMENT declines through the next decade pose a serious threat to the nation’s graduate schools. Inflation, spiraling educational costs, uncertainties surrounding financial aid, and increased competition for students further aggravate the shrinking enrollment problem. As the student population dwindles, in order to attract quality applicants and stabilize present enrollment levels, graduate schools will be forced to mount more creative and aggressive student recruitment campaigns. Clearly, schools that do a good job of marketing their programs will attract better graduate students and maintain sizable enrollments. On the other hand, those schools that just sit back and accept the impending declines, regretably, must prepare to live with fewer and weaker students, severe budget cutbacks, lower academic quality, and even the possible elimination of graduate programs.

In an effort to combat the threat of plummeting enrollments, graduate schools should look to their alumni for help. A highly trained cadre of organized and enthusiastic alumni can add significant muscle to the student recruitment effort. Today, however, only a small handful of graduate schools effectively use their alumni to recruit students. Unfortunately, valuable alumni recruitment resources have gone virtually untapped.

Alumni admissions programs are not a new idea. Many undergraduate colleges and universities, years ago, realized the benefits of involving their alumni in student recruitment. Today, these institutions rely heavily on their graduates to build and maintain strong undergraduate enrollments.

BENEFITS OF AN ALUMNI ADMISSIONS PROGRAM

Alumni admissions programs mutually benefit both the graduate school and its former students. First, alumni identify talented students, cultivate potential applicants, and encourage admitted candidates to enroll. Through these activities, alumni provide valuable support to the admissions office.
Second, alumni admissions programs expand considerably the size and scope of the school's recruitment program. For instance, normally because of small admission staffs, graduate schools are severely limited in the number of recruitment activities they can participate in and services they can offer. By enlisting a large pool of alumni volunteers, however, graduate admissions offices can amass the necessary labor force to heighten and diversify their student recruitment efforts.

Third, alumni admissions programs can provide considerable savings to the graduate school. For example, a nationwide network of alumni volunteers not only saves on professional staff time, but also significantly reduces expenses for admissions office travel and long-distance telephone calls. Theoretically, the school derives increased benefits without incurring increased recruitment costs. Graduate schools working with restricted admissions budgets find alumni programs particularly attractive.

Fourth, in addition to helping recruit students, expanding the size and scope of the school's recruitment program, and providing substantial cost advantages, alumni recruitment programs offer graduate schools countless intangible benefits. Habben and Stewart have identified some of these benefits:

... administrators of alumni recruitment programs agree that alumni who identify with their alma maters tend to become donors, and there is evidence that participation in an alumni recruitment effort does foster an alum's identification with the university.

Star also cited benefits particularly applicable to recent graduates:

In the long run, besides boosting admission, organized alumni involvement strengthens your institution. Many alumni, especially the younger ones, are not interested in the usual club-type, social activities that have long been the staple of alumni gatherings. But, they are happy to be useful to their institution and community. They also will keep abreast of developments on campus, and will, as a result gain a higher regard for alma mater.

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2Habben and Stewart, p. 9.
After weighing the benefits of involving graduates in student recruitment, schools must formulate the alumni admissions program. This takes great patience and planning. Effective alumni networks cannot be created overnight and often take several years to become fully operational.

To develop an effective alumni student recruitment program, graduate schools must take the following steps: obtain the dean's approval and support; establish program objectives; decide on an appropriate organizational structure; update alumni records; identify specific recruitment activities; attract volunteers; train participants; evaluate program effectiveness; and recognize hardworking alumni. Each of these essential elements is explored in considerable detail below.

1. Obtain the dean's approval and support. The first step in formulating an alumni admissions program is to obtain the dean's approval and support. Without the dean's approval and financial backing, the program surely will fail. The dean must fully understand the importance of the program and how involving alumni in student recruitment will mutually benefit both the school and its graduates.

2. Establish objectives. Once the dean's endorsement has been obtained, establish goals and objectives. Central to most alumni admissions programs are the following three objectives:

- To identify talented prospective students
- To increase the pool of qualified applicants
- To increase the number of admitted applicants who actually enroll

Setting objectives is important and must not be overlooked. Without stated objectives, alumni representatives suffer from an unclear mission, feel uneasy about their duties and responsibilities, and lose their enthusiasm for the program.

3. Decide on an appropriate organizational structure. After establishing objectives, graduate schools must develop a suitable organizational structure to effectively administer the alumni recruitment program. This hierarchial structure should include a full-time staff person, a national alumni student recruitment committee, several regional or area coordinators, and numerous individual alumni volunteers. The full-time staff person manages the day-to-day operations of the program and works closely with various national
Most highly successful alumni admissions networks depend heavily upon a small group of dedicated regional coordinators who serve as valuable links between the school and individual alumni recruiters. Typically, these coordinators reside in areas where there are large pools of prospective graduate students and a sizable group of supportive alumni. Regional coordinators usually spearhead all student recruitment activities in their particular region; conduct regularly scheduled regional alumni meetings; train and monitor the progress of individual volunteers; and file periodic reports to the graduate school.

Although there is considerable agreement about how to organize an effective alumni admission's network, opinions differ significantly on which office should administer the program. Should the admissions office or the alumni relations office run the program? Habben and Stewart suggested that the alumni recruitment program belongs in the admissions office:

While some universities have originated and continued to maintain their programs through the office of alumni relations, the consensus is that the admissions staff is best equipped to provide coordination and supervision.

Zicconi, on the other hand, argued strongly that the alumni recruitment program belongs in the alumni relations office:

The most sensible place to base the alumni-in-admissions program is in the Alumni Office. It lends more integrity to the alumni program and the admissions process. . . . Alumni officers are better suited and more sensitive to handling alumni who give time, energy, and support.

The Alumni Office can keep better track of where the problems might arise and why someone may have stopped working or stopped giving. We can also identify volunteers from one program that would work well in others.

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6Habben and Stewart, p. 11.
Determining which office should handle the alumni admissions program depends largely on the administrative structure of each individual graduate school. Admissions office and alumni office staff sizes, operating budgets, and program priorities must all be taken into consideration. Regardless of which office oversees the program, it is essential that the admissions office and the alumni relations office work in harmony to maximize valuable alumni recruitment resources.

4. Update alumni records. After obtaining the dean’s approval, establishing objectives, and deciding on a suitable organizational structure, graduate schools need to secure accurate and up-to-date alumni records. The success of any alumni recruitment program hinges on the accuracy of these records. Unfortunately, many graduate schools lack detailed information about their alumni. Good records are extremely important for inviting former students to participate in the program and for communicating with alumni recruiters after the program becomes operational. Once corrected and updated, alumni records should be classified by: name, zip code, academic program, year of graduation, undergraduate institution, and current occupation. By breaking their records into these six groupings, graduate schools will do a much better job of matching-up prospective students with alumni volunteers throughout the admissions process.

5. Identifying specific recruitment activities. Determining how to put alumni to work is another important consideration in developing an effective alumni admissions program. Graduate schools must decide on how to best utilize their alumnus’s talents. Specifically, alumni can make significant contributions to the student recruitment effort by:

- Identifying talented students and referring their names and addresses to the graduate school
- Visiting local colleges and universities to talk with prospective students and graduate school advisors
- Attending graduate school recruitment fairs, career days, and college nights
- Contacting potential applicants and admitted students by letter, telephone, or personal visitation
- Hosting various off-campus student information sessions and special receptions
6. Attracting volunteers. After identifying specific recruitment activities, schools need to attract alumni volunteers. The best way for graduate schools to attract a sizable work force is to mail a letter, questionnaire, and postage-paid reply envelope inviting each graduate to join the national alumni student recruitment network. The purpose of the questionnaire is to verify names and addresses, obtain additional information about former students, and to determine which specific recruitment activities volunteers would like to perform.

In addition to mailings, participants can be identified in other ways. Faculty and staff often serve as good sources of alumni referrals. Also, leafing through old alumni files and records frequently generates a few names. In addition, asking volunteers to recommend fellow alumni and placing tear-out cards in alumni publications usually produces participants. Furthermore, one of the best ways to cultivate future volunteers is to involve currently enrolled students in various admissions and alumni relations activities before they graduate.

What types of alumni make the best volunteers? What characteristics should graduate schools look for in selecting alumni recruiters? In general, personality and enthusiasm seem to be more important than age or the number of years out of graduate school. Although opinions differ, good alumni recruiters genuinely enjoy working with prospective students, willingly devote a significant amount of time and effort, and harbor deep affection for their graduate school alma mater.

7. Train participants. After enlisting a substantial number of volunteers, before putting them to work, alumni recruiters must be properly trained. Hoopes suggested that “the more training alumni receive, the more sophisticated the recruitment activities they can fulfill.” To prepare alumni representatives, the school’s admissions director should conduct organized student recruitment workshops for volunteers both on campus and off campus. These training sessions provide alumni essential information about the graduate school, the admissions process, and specific recruitment duties and responsibilities.

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8Harris, p. 33.
9Zucconi, p. 49.
Alumni admissions handbooks serve as particularly useful tools for training volunteers. These handbooks normally include sections about academic programs, admissions, costs and financial aid, career planning and placement, student services, facilities, housing, and the community in which the graduate school is located. In addition, these manuals should contain information about how to conduct effective interviews and how to respond to frequently asked questions. Alumni training handbooks should be organized in loose-leaf form so that old materials can be easily discarded and new information can be readily added.

After training their volunteers, graduate schools must devote a great deal of attention to communicating with alumni recruiters. To foster strong volunteer cooperation and support, alumni must be kept well informed.

Bonney stresses that:

To maintain a student recruitment program using alumni, it’s essential to provide feedback, service, and aids. Alumni representatives need timely updating of the students they have recruited, prompt responses to questions, and adequate tools.

Alumni magazines, special newsletters, and school newspapers are particularly useful aids for communicating with alumni volunteers. Also, alumni appreciate receiving occupational information and feature articles highlighting trends in graduate education. In addition, graduate schools can significantly improve two-way communications among admissions volunteers by installing an “800” toll free telephone line.

8. Evaluate program effectiveness. In formulating an alumni admissions program, graduate schools must not overlook the importance of regular and on-going evaluation. The effectiveness of individual volunteers and alumni student recruitment activities need to be weighed in terms of the program’s overall goals and objectives. Detailed facts about the number of inquiries, applicants, and enrolled students, which results from alumni contacts, must be collected and carefully analyzed. Comparisons should be made between two specific groups of students: prospective students contacted by alumni,

Finally, graduate schools must assess the performance of individual alumni representatives. Alumni volunteers who have done a good job should be persuaded to continue in the program. On the other hand, non-productive representatives should be relieved of their responsibilities and encouraged to support the school in other ways.

9. **Recognize and thank volunteers.** Graduate schools need to recognize and thank alumni recruiters for their valuable contributions. Habben and Stewart emphasized the importance of recognizing volunteers. They stress that "maintaining alumni interest in the program requires both proper motivation and reward. Alumni will respond most generously if they are made to feel that their efforts are needed and effective."\(^\text{12}\) Hoopes likewise attests to the value of recognizing alumni by pointing out that "the more you attach status to volunteerism, the more volunteers you will be able to attract and retain over the years."\(^\text{13}\)

To express their appreciation to alumni, graduate schools should send a special thank-you letter to each representative at the end of the recruitment season. Also, the school can recognize its alumni by awarding special plaques and certificates and by mailing small, inexpensive favors such as college pins, coffee cups, and pennants. In addition, other effective practices of thanking alumni include sponsoring dinners and socials; publishing alumni honor rolls; and honoring volunteers at various local, regional, and national alumni meetings.

Alumni admissions programs mutually benefit both the graduate school and its former students. Alumni programs help attract students, expand the size and scope of the school's recruitment programs, offer cost savings to the school, and strengthen alumni commitment and support. As the student population declines through the next decade, graduate schools should utilize valuable alumni resources to attract quality applicants and maintain strong enrollments.

\(^{12}\)Habben and Stewart, p. 11.

\(^{13}\)Hoopes, p. 10.
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Young Entrants to College: How Did They Fare?

JULIAN C. STANLEY*

WHAT HAPPENS TO STUDENTS who enter college at least two years accelerated? Are all elected to Phi Beta Kappa? Do all drop out? Common sense, of course, suggests that the answer lies somewhere between those poles, but where? There is little systematic, prospective (rather than retrospective) study of groups starting college even a year younger than the usual minimum. Among these, two are especially notable. The present study of the Class of 1984 at The Johns Hopkins University adds to that meager literature. It is hoped that registrars and admissions officers will initiate investigations in their institutions and publish the results so that they can be compared with those presented here.

BACKGROUND OF THIS SET OF OBSERVATIONS

In the fall of 1980, 16 males and 9 females of the approximately 600-person entering class became full-time beginning students at Johns Hopkins at least two years accelerated beyond the typical age-in-grade minimum. (Please see Table I.)

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*I thank Barbara S. K. Stanley and Camilla Persson Benbow for helpful comments about early drafts of this report, Ann M. McGill and Lola L. Minor for statistical computations, and JHU University Registrar Robert E. Cyphers and his staff for their invaluable assistance. Requests for reprints should be addressed to Professor Julian C. Stanley, Director of the Study of Mathematically Precocious Youth (SMPY), Department of Psychology, The Johns Hopkins University, Baltimore, MD 21218.

Their birthdates ranged from one woman born in January of 1967 to another born in January of 1963 — that is, from age 13.6 on 1 September 1980 (with sophomore standing) to 17.6 (also with
sophomore standing), a four-year spread even among these educa­tionally greatly accelerated students. If age-in-grade, the youngest would have been an old-in-grade eighth-grader, rather than a col­lege sophomore. The oldest would have been an old-in-grade high­school senior. Four of the 25 were born in 1963 and entered with sophomore standing, 17 were born in 1964, 3 in 1965, and 1 in 1967. Most of the entering students that year had been born in 1962.

Ten of the 25 were natives of Maryland. Other states and coun­tries represented were as follows: 4 from New York and 1 each from Alabama, Barbados, Illinois, Iran, New Jersey, Ohio, Okla­homa, Taiwan, Texas, Virginia, and Wisconsin. Nine of the 13 from Maryland and the 3 from New Jersey, Oklahoma, and Virginia were attracted to Hopkins by their prior contacts with its Study of Mathematically Precocious Youth (SMPY). The other 13 came on their own. Probably some of them had heard through the inter­national publicity SMPY receives that this university is especially re­ceptive to young entrants, even those without high-school diplo­mas.

HOW MANY HAVE GRADUATED?

Twenty-two of the 25 completed their bachelor's degree at Johns Hopkins by 25 May 1984, the Commencement date. A young wom­an had already transferred to another university at the end of her first year and remained the next three years. She received a B.A. degree in political science on May 12. A male in excellent academic standing withdrew in May of 1983 after having been on semester leave of absence. He has not responded to repeated queries. A fe­male with an excellent scholastic record took a leave of absence for health reasons for the academic year 1983-84. She lacked only one semester of having completed the baccalaureate.

Four of the 25 received a master's degree along with their bache­lor's, each at age 19. These were in electrical engineering and com­puter science, mathematical sciences, mathematics, and (bio)psy­chology. They had pursued the master's degree concurrently with the baccalaureate, a procedure many departments at Hopkins en­courage.

AT WHAT AGES WAS ALL WORK FOR THE BACCALAUREATE COMPLETED?

A young man born 29 October 1965 had completed his B.A. de­gree in mathematical sciences by the end of December 1981 at the
age of 16 years 2 months. Actually, he had carried a heavy course load (20.5 semester-hour credits) during the second semester of the academic year 1979-80, but considered himself a high-school student then! At Johns Hopkins he passed five courses by examination: Linear Algebra, first-semester German, Introduction to Topology, Real Variables, and Design and Analysis of Algorithms. Also, he had entered Hopkins with 16 credits of advanced standing earned via Advanced Placement Program examinations (Calculus BC and both parts of Physics C) and 5 by college courses taken while 13 years old (History of Philosophy and World Prose). Besides these, he took summer humanities courses at Cornell University in 1980 and the University of Massachusetts in 1981. All this doubling up made him the second youngest graduate of Hopkins in its 108-year history.

The next earliest graduate, on 27 May 1982 just 10 days before her 19th birthday, was a young lady of Japanese parentage from Oklahoma. By 4 November of 1982 she also had completed her master's degree in mathematics. Coming to Hopkins after the 11th grade with a high-school diploma, she won many honors: a Rhodes Scholarship, membership in Phi Beta Kappa, the Dean's List each of her four semesters, general honors, and departmental honors. Having entered at age 17 years 3 months with 35 credits of advanced standing, she took heavy course loads (18.5, 21.5, 32.5, and 18 credits) of advanced courses each semester and also attended another university during the summer of 1981 to study history and philosophy. Besides all this, she is a piano prodigy, music teacher, and varsity fencer.

Two other of the 22 students each graduated from Hopkins two semesters early. Five were through a semester early. Thus, 9 of the 22 (41%) took less than 8 semesters. The student who graduated elsewhere took 8 semesters, including the first 2 at Hopkins.

**HOW OLD WERE THE 23 AT COMPLETION OF THE BACCALAUREATE?**

Age at time of officially completing all requirements for the B.A. or the Bachelor of Engineering Science degree ranged from 16 years 2 months to 20 years 7 months, nearly 4½ years. The median completion age was 19 years 8 months. An exactly age-in-grade graduate would have been about 22 years 1 month old, so even the least accelerated of these was 1½ years early. This group had a 16-year-old graduate, a 17-year-old, three 18-year-olds, 14 19-year-olds, and 4 20-year-olds.
They majored in 13 different departments or areas: Electrical Engineering and Computer Science (4), Mathematical Sciences (4), Mathematics (3), Biology (2), Natural Sciences Area (2), Psychology (2), one of them jointly with biology), and 1 each in Behavioral Biology, Biomedical Engineering, Chemistry, Human Studies Area, Philosophy, Political Science, and Writing Seminars. None of the graduates majored in physics (although the male dropout did) or three departments for which Johns Hopkins is especially noted at the graduate level: History, English, and History of Art. About 9 considered themselves premedical students, but were required to major in a department or area.

**WHAT COURSE LOADS DID THE 23 GRADUATES COMPLETE?**

Number of semester-hour credits ranged from 120, the minimum needed in order to earn the B.A. degree, to 162. The more credits a student amassed, the higher the grades he or she tended to get. Only 2 of the 11 general-honors graduates (cumulative grade-point average of at least 3.50 on the 4-is-A scale) completed less than 131 credits (124), whereas 8 of the 12 less-achieving students did.

**HOW WELL DID THEY DO ACADEMICALLY?**

Half of the 22 graduating from Hopkins earned general honors. Eight of those, and one other whose GPA was 3.41, earned departmental honors (the three persons in the area majors were eligible for general honors but not for departmental honors, so 9 out of the possible 19 won the latter). Approximately 31 percent of the entire baccalaureate class of 1984 received general honors, whereas about 14 percent won departmental honors. Relative to the latter, 9/22 (41%) seems outstanding.

The 22 cumulative GPAs ranged from 3.38, 3.81, 3.81, 3.79, and 3.74 to 2.90, 2.89, 2.58, and 2.29, with the median between 3.41 and 3.50. The 7 female graduates had GPAs of 3.83 (at age 19 years 2 months), 3.81, 3.66, 3.55, 3.08, 3.02, and 2.90, whose median is 3.55. There seemed to be little systematic relationship between sex and achievement.

Of the 14 majoring in fields that made them eligible to become members of Phi Beta Kappa, 3 (21%) were chosen. This is about
twice the percentage in the graduating class. The woman and the man with the two highest GPAs were majoring in electrical engineering and computer science (EECS) and therefore ineligible, but they were inducted into Tau Beta Pi, the national engineering honor society — one as a sophomore, the earliest and youngest of any of the 29 inductees listed on the Commencement Day program, and the other as one of the 9 juniors. Both were also chosen for Eta Kappa Nu, the electrical engineering honor society, so was another EECS major, who earned 137 credits with a GPA of 3.38.

The second youngest of the 22 graduates was elected to membership in Alpha Epsilon Delta, national premedical honor society. It seems strange, however, that the two premedical members who were elected to Phi Beta Kappa are not shown on their transcripts as being members of this society.

A SPECIAL GROUP OF MALES

Of the 507 boys who participated in SMPY's December 1976 talent search, chiefly 12-year-old seventh-graders and all of them in the upper 3 percent of their age group intellectually, the top 98 had been ranked in 1977 for scientific promise on the basis of extensive further testing. Eight of these (Nos. 1, 2, 9, 14, 28, 32, 41, and 79) enrolled at Hopkins at least two years younger than the typical minimum age. No. 1, of Chinese parentage, came with sophomore standing in the fall of 1978 at age 12 years 9 months and received his B.A. degree in physics with 155 credits in May of 1981 at age 15 years 7 months, the youngest graduate in Hopkins' 108-year history. He won the physics prize, general and departmental honors, a National Science Foundation three-year graduate fellowship, and a Churchill Scholarship for a year at the University of Cambridge, England. After returning in the fall of 1982 he enrolled as a doctoral student in neurobiology at a top-flight American university.

No. 2 entered Hopkins with sophomore standing in the fall of 1979. After six semesters, in May of 1982 he received a B.A. degree in mathematical sciences at age 18 years 2 months with 128 credits. He made the Dean's List the second, fifth, and sixth semesters, with a total of 15 As and no Ds or Fs. The fifth semester he had a perfect-A record on the 17 credits he took then. Also, he made As in the two graduate courses on his transcript. These details indicate that, even though this young man's cumulative GPA was less than
3.50 (the general-honors level) and also he did not earn departmental honors, he performed better in a demanding field than most Hopkins undergraduates do. In 1982 he became a graduate student in computer science at another major university.

The other six enrolled at Hopkins in the fall of 1980. No. 9 took his bachelor's and master's degrees in 1984 at age 19 with several high honors. He and No. 14, who also took his bachelor's degree in electrical engineering in 1984, were at age 19 two of the four members of a Hopkins team that won a national computer-programming competition. No. 28 took his B.A. degree in mathematical sciences in 1984 with a good but not superb academic record. No. 32 took his in biology in six semesters at age 18 years 5 months. No. 41 took his in six semesters with Phi Beta Kappa honors. No. 79, considerably abler verbally than this composite ranking suggests, received his B.A. degree in biology and psychology and M.A. degree in psychology, all in May of 1984 at age 19 with general and departmental honors.

All in all, this is remarkable educational acceleration and accomplishment. Can it be matched anywhere else? According to information sent me by the registrar of a large, prestigious private university, the youngest recipient of a baccalaureate there in 1983 was 19 years 10 months old. That was also true at Hopkins in 1971, just before SMPY began.

**DISCUSSION**

Although the cumulative GPAs of these 23 young graduates ranged widely, it is obvious that half of them finished an academically difficult university with considerable distinction. Only 5 of the 23 had GPAs below 3.01, a "B" average. Even the lowest grade achiever (2.29) finished with 133 credits instead of the minimum 120. Only 3 did not take a great deal of science and mathematics (Even the philosophy major, Phi Beta Kappa and medical school admittee, did).

Those 12 persons who were known to and counseled by SMPY before they arrived tended to fare considerably better than those who had come without this support, even though all were offered assistance once they arrived. All 12 have graduated, a total of 15 semesters early, whereas 3 of the other 13 left Johns Hopkins. The 11 of those 13 who did graduate had a total of 3 semesters accelera-
tion. One needs sound advice about whether or not to enter an academically demanding college two or more years early, especially in premedicine, the preprofessional specialty that attracts many undergraduates to Hopkins.

The four youngest students, those born in 1965 or 1967, were graduated on time or faster, with the following GPAs: 3.83 (134 credits), 3.55 (158), 3.53 (124) and 2.90 (120). Three of these, including those with the highest and the lowest GPA, are female.

From our experience with this small group, we infer that some girls moving into residence halls at age 15 or 16 (as 7 of these did) may have considerably greater social-academic problems than most boys of those ages tend to encounter. Such girls may be attractive to, and attracted by, upperclass males too soon for them to have become oriented socially and academically. It seems that at least 3 of the 9 girls had never “dated” before becoming residential students! Almost immediately upon arriving, some were caught up in social whirls for which they were unprepared; their school work suffered, at least initially.

The three girls of Chinese or Japanese parentage fared best academically among the females, earning GPAs of 3.83 (134 credits), 3.81 (134), and 3.55 (158). They had entered at ages 13, 15, and 17.

The three males of Chinese ancestry earned 3.74 (131, 3.53 (139), and 2.89 (128). Note that the sample of 25 contained 4% of Japanese parentage and 20% of Chinese parentage, vs. the approximately 1½% of the nation’s population that is Asian-American. None of these 6 Oriental-Americans left Johns Hopkins without a degree or without honors. The academically least successful one made 8 A’s and the Dean’s List once, and graduated a semester early with 131 credits.

Six of the 25 had attended private, non-parochial secondary schools. All of them graduated on time or faster. Their GPAs were 3.83 (134 credits), 3.74 (131), 3.55 (158), 3.53 (139), 3.53 (124), and 3.50 (160). The other 19 had attended public schools. Clearly, the private-school students tended to perform much better academically than did many of the public-school ones. Yet several of the public-school students performed superbly: a Rhodes Scholar, a top electrical-engineering student, high GPAs, three master’s degrees at age 19, two members of Phi Beta Kappa, the writing award at graduation, etc.
Most of these students will go on to Ph.D. or M.D. programs across the country, or at least will earn master's degrees. One, for instance, has been accepted into the Cornell University/Rockefeller University M.D./Ph.D. program. Another will do graduate work in biology at U.C.L.A. The second youngest will enter medical school at age 17½. Several will be doctoral students in electrical engineering at major universities. It will be interesting to survey the group again in 1994. Will they achieve as highly as the young college graduates studied by Stanley and Benbow (1983)?

Only 3 of the 23 graduates had failed to earn any honors, including making the Dean's List at least one semester during their undergraduate years. Two of those finished with more than the required 120 credits (133 and 128), one in six semesters rather than the customary eight or more. Even the lowest achiever (GPA 2.29) earned three A's. The man who finished in three years at age 18 earned six A's and no D's or F's. A woman received her B.A. degree at age 18 with more than one-third of her credits A, even though her cumulative GPA was "only" 2.90 and she had received 3 F's and 4 D's. Were these three wise to have become full-time, residential college students at age 15 or 16? Perhaps their future achievements will help them and us answer that perplexing question.

The moral seems clear: starting college at an early age (or any age) is no guarantee of academic success, but the student who begins young after considerable counsel and planning to bridge the academic and social chasm separating high school from college stands an excellent chance of speeding his or her way effectively into high-level professions and a satisfying life. The stimulation gained, boredom avoided, and time saved can be crucial for one's academic and personal development.

This study is based on a population of only 25 cases, so of course it needs replicating. Admissions officers and registrars can readily follow young entrants for four or more years to determine to what extent these findings at Johns Hopkins characterize their institu-

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2Ibid. For other studies of academic precocity, see Camilla Persson Benbow and Julian C. Stanley (Eds.), Academic Precocity: Aspects of Its Development (Baltimore, MD 21218: Johns Hopkins University Press, 1983), and William C. George, Sanford J. Cohn, and Julian C. Stanley (Eds.), Educating the Gifted: Acceleration and Enrichment (Baltimore, MD 21218: Johns Hopkins University Press, 1979).
tions. I urge them to publish their findings, preferably in *College and University*, so that a body of results will develop from which one can determine how to improve counseling about early admissions.

Of course, receiving one’s baccalaureate is an accomplishment less than one-third of the way along the typical graduate’s life path. Follow-ups 10, 20, or even 50 years later will help show the long-term personal and professional effects of beginning college considerably younger than the usual entrant.
Alternative Admissions for Adult Students at California State University, Fresno

Carroll C. Cotten and William P. Stock

Project EMAAP (Educationally Motivated Adult Admissions Program) was designed to admit a selected group of adult students to California State University, Fresno (CSUF) in each of four semesters, from Spring 1976 to Fall 1977. This article presents a rationale for the inception of the program, the academic history of the program participants, and probable future directions for admission of adult students within the California State University system.

Characteristics of Adult Students

Adult students are certainly as heterogeneous as any other group of students. They possess some characteristics that differ from those manifested by traditional undergraduates. There is no agreement in the literature or in the admission practices of various colleges and universities as to what constitutes an adult student. It was decided, therefore, to define an adult student for EMAAP as an individual 25 years of age or older who had not been a full-time student at any time during the past five years.

Lunnebord, Olch, and De Wolf (1974) reviewed literature bearing upon the relationship between learning and the characteristics of adult (middle aged) learners. Three findings emerged: (1) The decline in intellectual functioning with increasing age implied by cross-sectional studies is not supported by longitudinal studies. (2) Compared with younger students, the adult learner has an absolute verbal advantage and an absolute quantitative disadvantage. (3) Education significantly retards intellectual decline.
Nisbet and Welsh (1972) investigated the motivation of adult students seeking a post-secondary educational experience. Dissatisfaction with current employment was the major reason cited by 53 percent of a sample of 177 respondents at the University of Aberdeen (Scotland) for returning to school. Other reasons cited included a belief that the respondent had the ability to do well (23 percent), intellectual interest (12 percent), always wanted to return to school (11 percent), and expected financial return (6 percent). Lunnebord, Olch, and De Wolf (1974) indicated that 49 percent of their sample of 153 students, aged 35 or over, attending the University of Washington were present strictly for vocational reasons. However, these authors also found that significantly more females than males cited nonvocational motives for re-entering college (e.g., enrichment of leisure time). Letchworth (1970) suggests that an older woman may view college as a font to identity enhancement, if and when she becomes less than fully satisfied with her role as a wife and mother.

As a group, adult students are highly motivated. Perkins (1971), for example, conducted a study in which adult students, as a group, had some of the poorest results when compared with four other groups on the College Qualification Test. Conversely, this same adult group had some of the best results when compared on grade point average.

**PROJECT EMAAP STUDENTS**

Project EMAAP was a CSU Alternative Admissions pilot project. For many years, CSU Admissions Officers have recognized the inadequacy of old test scores and high school records as a basis for admitting adult students. As a result of this apparent inadequacy, permission was obtained to admit up to 50 adult students to CSUF in each of the four semesters from Spring 1976 to Fall 1977. Traditional admissions requirements were waived for these students, and several innovative criteria for admission were devised to assess the candidates' potential for succeeding in a regular program of studies at the university. These criteria included: (1) a personal interview with the Admissions Officer, (2) results of the Nelson Denny Reading Test, (3) evaluation of an essay for both form and demonstration of sufficient motivation, and (4) completion of the standard application.
The CSUF Admissions Officer personally interviewed a total of 298 adult students for EMAAP. Of this group, 190 adult students applied for admission and 125 adults actually registered for course work at CSUF during the four semesters in which the program was in operation. Total actual enrollment included 96 women (77 percent) and 29 men (23 percent). Many of the students who were interviewed, but who did not enroll under the program, were referred to Community Colleges or were admitted as special or regularly eligible CSUF applicants.

To assess the academic achievement and registration persistence of EMAAP students, a control group of regularly eligible students was selected. Each control student was matched with an EMAAP student on the basis of semester of initial CSUF enrollment, sex, declared major, and class standing. Two students were eliminated from the analysis phase of the project. In one instance, it was impossible to match the EMAAP student with a regularly enrolled student. In the other case, the EMAAP student progressed so rapidly that inclusion of this individual would have distorted the findings.

The analysis phase of the project centered around an exploratory study of differences in academic progress between EMAAP students and regularly admitted (control) students. Differences in registration persistence, grade point average, and progress toward graduation were examined. In addition, the technique of multiple regression was used to measure traditional predictive levels of academic success (grades and SAT test scores) for regularly admitted students as compared with the alternate admission criteria used for the EMAAP students. Unfortunately, the EMAAP students' old high school (or college) transcript and test scores files were incomplete. It was therefore not possible to compare the efficacy of the old predictors with the new measures obtained for EMAAP admission.

METHODOLOGY

Multiple Regression Analysis (MRA) has the dual purposes of prediction and explanation. In exploratory research, one is often primarily interested in examining significant relationships between a set of predictor (independent) variables on the one hand, and one or more criteria (dependent) variables on the other hand.

Ideally, all measures should be available on all subjects in order
to test the correlation of various preadmissions indexes with subsequent academic performance. Due to gaps in the data, it was necessary to perform separate regression analyses for EMAAP students submitting only high school scholarship information, and for a second group presenting transfer work from another college or university. In general, the two groups were mutually exclusive; few college transfers had high school transcripts submitted as part of their admissions files. Fewer than 10 EMAAP students provided SAT scores. While the information available for the matched control students was somewhat more complete, these students were not required to complete the Nelson Denny Reading Test nor the Strong Campbell Interest Inventory.

Eight principal multiple regression analyses were performed:

1. EMAAP subjects presenting high school information with first semester grade point average at CSUF as the dependent variable.
2. EMAAP students presenting high school information with cumulative units completed at CSUF during the first semester as the dependent variable.
3. EMAAP subjects presenting college transfer work with grade point average during first semester at CSUF as the dependent variable.
4. EMAAP subjects presenting college transfer work with cumulative units completed at CSUF during the first semester as the dependent variable.
5. Matched control subjects presenting high school information (including SAT results) with first semester grade point average at CSUF as the dependent variable.
6. Matched control subjects presenting high school information (including SAT results) with cumulative units completed during the first semester of attendance as the dependent variable.
7. Matched control subjects presenting college transfer work with grade point average during the first semester at CSUF as the dependent variable.
8. Matched control subjects presenting college transfer work with cumulative units completed during the first semester of attendance as the dependent variable.

For EMAAP subjects, up to 14 independent (predictor) variables entered into the multiple regression equations. These variables included 8 Strong Campbell Interest Inventory scales (6 Holland
themes, Academic Orientation, and Introversion-Extroversion), 3 Nelson Denny reading test scores (vocabulary, comprehension, and reading rate), age, years out of school, and either high school or transfer college grade point average. For matched control subjects, up to 5 independent variables entered into the multiple regression equations. These included high school or college transfer grade point average, age at entrance, years out of school, SAT verbal and mathematics students (those entering without transfer college work), and college units transferred (those entering with college junior or senior status).

In passing, it should be pointed out that the average age of the EMAAP students at the time of their entrance to CSUF was 34.6, and that they had been out of school for an average of 8.3 years. For the matched control subjects, the average was 18.31 at the time of entrance to CSUF, and they had been out of school for an average of 0.45 years.

In addition to the predictor variables discussed above, certain nonmetric (nominal) variables were thought to be related to academic achievement. These variables included sex, motivation typology, and status at entrance (i.e., declared or undeclared major). In order to assess the influence of these variables, it was decided to conduct a number of one-way and two-way analyses of variance, using an alpha level of 0.05 to differentiate between statistically significant and non-significant results. Criteria variables used in the analyses included units completed during the first semester at CSUF, first semester grade point average, cumulative units completed by the end of the fourth semester of attendance at CSUF, and cumulative grade point average at the end of the fourth semester.

**RESULTS**

Table 1 reveals that in general the matched control students persisted at a higher rate than did the EMAAP students. For the 4 groups, 37 semesters of attendance are summarized. For 28 of these semesters, the number of matched control students registering exceeded the number of EMAAP students. It should be noted, however, that the attendance of EMAAP students entering during the first semester of the project (Spring 1976) is consistently equal to, or higher than, that of the control subjects. This finding is important in that extensive support services were available through
the Re-entry Program this first semester that were reduced or eliminated in subsequent semesters. It is also hypothesized that this group was a highly motivated assemblage of self-starter who were quick to take advantage of a new program. Table 1 also reveals that as of September, 1981, a total of 17 EMAAP students had been awarded bachelor's degrees, and 31 matched control students had completed the baccalaureate.

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Table 1: A Comparison of Attendance Patterns at East Tennessee State University Among EMAAP Students and Matched Control Students
Table 2 summarizes academic achievement as measured by the mean semester grade point average for all students persisting to the end of each of the 37 semesters. One way of looking at Table 2 is simply to count the number of semesters in which the mean semester grade point average for the EMAAP subjects exceeds the corresponding mean for the matched subjects. For 24 of the 37 semesters, the EMAAP students did in fact achieve a higher mean semester grade point average than did their matched peers. This is a remarkable achievement in view of the fact that these students were not eligible for regular admission to the university.

### Table 2

**A Comparison of Academic Achievement at CSUF Between 123 EMAAP Students and 123 Matched Control Students Entering from Spring 1976 to Fall 1977 Showing Number of Students, Mean Semester Grade Point Average, and Standard Deviation for the Mean GPA**

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Table 3

A comparison of academic achievement at CSUF between 123 EMAp students and 123 matched control students entering from spring 1976 to fall 1977 showing number of students, mean cumulative units completed at CSUF, and standard deviation.

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</table>
Table 3 measures progress toward the bachelor’s degree by charting the mean cumulative number of units completed at the university by each of the two groups at the end of each semester of attendance. In all but 2 of the 37 semesters it can be seen that the matched control subjects completed more units on the average than did the EMAAP subjects.

As indicated above, eight multiple regression analyses were performed to explore the predictive ability of various preadmission indexes upon subsequent academic performance, as measured by grade point average and cumulative units completed at the end of one and four semesters of attendance at CSUF. The basic question of interest in these analyses was whether the indexes used for admitting EMAAP students predicted academic success as well as the traditional indexes used in admitting the matched control subjects.

The eight regression analyses are summarized in tabular form, below:

<table>
<thead>
<tr>
<th>Group</th>
<th>Criterion Var</th>
<th>Multiple R</th>
<th>R²</th>
<th># of Subjects</th>
<th># of Independent Variables in Final Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMAAP-High School Info.</td>
<td>First Sem GPA</td>
<td>.408</td>
<td>.167</td>
<td>74</td>
<td>13</td>
</tr>
<tr>
<td>Control-High School Info.</td>
<td>First Sem GPA</td>
<td>.271</td>
<td>.074</td>
<td>56</td>
<td>5</td>
</tr>
<tr>
<td>EMAAP-High School Info.</td>
<td>Cum Units-Sem. 1</td>
<td>.570</td>
<td>.325</td>
<td>74</td>
<td>14</td>
</tr>
<tr>
<td>Control-High School Info.</td>
<td>Cum Units-Sem. 1</td>
<td>.335</td>
<td>.112</td>
<td>56</td>
<td>4</td>
</tr>
<tr>
<td>EMAAP-College Transfers</td>
<td>First Sem GPA</td>
<td>.460</td>
<td>.212</td>
<td>72</td>
<td>14</td>
</tr>
<tr>
<td>Control-College Transfers</td>
<td>First Sem GPA</td>
<td>.551</td>
<td>.303</td>
<td>51</td>
<td>4</td>
</tr>
<tr>
<td>EMAAP-College Transfers</td>
<td>Cum Units-Sem. 1</td>
<td>.449</td>
<td>.202</td>
<td>72</td>
<td>14</td>
</tr>
<tr>
<td>Control-College Transfers</td>
<td>Cum Units-Sem. 1</td>
<td>.357</td>
<td>.127</td>
<td>51</td>
<td>4</td>
</tr>
</tbody>
</table>

In general, the results of the multiple regression analyses were disappointing, from a predictive standpoint. For the 74 EMAAP students for which high school information was available, a multiple R of .408 was achieved, using 13 variables in the equation. This accounts for only 16.7 percent of the variance in CSUF grade point
average at the end of the first full semester of attendance. It should
be noted that the simple correlation (not shown above) between
high school grade point average and first semester college grade
point average is only 0.13. If this finding applies generally to older
students, it suggests that high school grade point average has con-
siderable shortcomings as a valid predictor of academic success.
These results also raise an important question: Are factors such as
motivation, marital status, and child care responsibilities more valid
predictors of academic achievement for EMAAP students than "ob-
jective" factors such as test scores and previous academic achieve-
ment?  

For the 56 matched control subjects presenting high school in-
formation (including SAT scores), the multiple R computed using
five independent variables was .27. Perhaps the most significant
observation for this particular analysis is the extremely low simple
correlation (not shown above) between high school grade point av-
average and first semester grade point average at CSUF of 0.15.

The entering freshman classes at CSUF in 1971 and 1975 were
subjected to validity studies conducted for the university by the
College Entrance Examination Board. Multiple correlations be-
tween the three predictor variables (high school grade point av-
average, SAT verbal score, and SAT math score) and college grade
point average for the freshman year were .461 for a freshman class
in 1971 for 418 students and .512 for a freshman class in 1975 of
607 students. The multiple regression equations generated were
thus able to account for 21.25 percent of the variance in the first
year grade point average for the 1971 freshman class and 26.21
percent for the 1975 class.

Why did the percentage of explained variance range from a low
of 7.4 percent for the control group of students in the present
study to a high of 26.21 percent for the validity study conducted
in 1975? Several explanations are possible. First, it seems reasona-
ble that the high school grade point average should predict college
grade point average better for students just out of high school than
for students who have been out of the academic world for a num-
ber of years. Second, the subjects of the 1971 and 1975 validity
studies were more homogeneous than the EMAAP and matched
control subjects of the present study. Finally, the reliability of the
results of multiple regression analysis is a major methodological
problem. Kerlinger and Pedhazur (1973), for example, point out
that regression coefficients tend to change with different samples and with a different number of independent variables. They state that the best way to ensure the reliability of regression statistics is to use as large and as representative samples as possible and to replicate the study using minor variations, such as different kinds of subjects or the addition or deletion of one or more of the variables.

SUMMARY

Interested readers should feel free to write to one of the authors for additional statistical tables, including the detailed multiple regression summary analyses summarized above and a simple correlation matrix of the 26 predictor variables that made up the analysis. From these additional tables, as well as from what has been presented above, the following factors emerged as the principal findings of the study:

1. Academic achievement, as measured by the cumulative grade point average at the end of the fourth semester of attendance, was significantly higher for the EMAAP students than for the matched control students.

2. Selected preadmission indexes collected for the EMAAP students predict academic achievement better than traditional admission indexes available for the matched control subjects.

3. Moderately high correlations were found to exist for EMAAP subjects between Strong Campbell Interest Inventory Academic Orientation and Artistic scales and academic achievement as measured by grade point average and units completed during the first semester of attendance.

4. There appears to be a significant negative correlation between the number of years out of school and the academic load, as measured by units completed.

5. The Nelson Denny Reading Test correlated poorly with academic achievement of EMAAP students.

6. Among EMAAP students, those with a declared major completed a significantly higher number of units during their first semester of attendance than those entering as undeclared majors.

7. EMAAP students citing "personal development" as their prime motivation for attending college had higher grade point averages than students citing "job advancement" or...
"second career". These latter two groups, however, progressed faster to completion of their degree programs.

DISCUSSION

One of the most interesting and important findings of the study was that the success of older students is clearly related to the presence of support services for that group on campus. The group entering in Spring 1976 was fortunate in that several services, which were eliminated in subsequent semesters due to funding restrictions, were offered through the Women's Study Center. These services included: (1) academic advising, career guidance and counseling, personal support counseling designed to raise the confidence level of re-entry adults; (2) classes and seminars to overcome academic anxiety (particularly mathematics); and (3) retention support services, including the assistance of an academic ombudsperson. In terms of persistence from first to second semester of attendance and number of students receiving the bachelor's degree, the Spring 1976 EMAAP students have a vastly superior record to those EMAAP students entering in the three subsequent semesters.

As a direct result of the EMAAP project and research, alternative admission criteria for adults seeking admission to California State University campuses were initiated. Effective Spring 1983, admission officers have been granted the authority to admit adult applicants who are 25 years-of-age or older on the basis of academic motivation and adequate basic learning skills. Campuses may select a preferred instrument for their assessment of adult students, in lieu of the SAT or the ACT. Transfer applicants must have at least a "C" average in course work taken in the previous five years and no more than one term as a full-time student during that period.

Enrollment and academic performance of students admitted under the new plan for Fall 1983 are very similar to that of the EMAAP students. A total of 31 students (22 women and 9 men) completed an average course load of 9.1 semester units, with an average grade point average of 2.87.
REFERENCES


ROUGHLY 20% TO 50% of all new students admitted to four-year institutions each fall fail to initiate or complete the registration process (Kramer, 1982). Several reasons contribute to this "no-show" phenomenon, but possibly the most direct reason is that students are admitted far in advance of the actual date the term begins. The hiatus between admission to and registration in the institution is a sobering period for students. While many remain committed to the institution after admission, others — for a variety of reasons — choose not to attend. As a result, institutions "overbook" students to compensate for the no-show phenomenon and to maintain enrollment capacity.

Clearly, a fairly accurate expectation of enrollment levels is crucial for all colleges and universities, either for ensuring financial stability or for establishing operational policy. This, then, justifies institutional efforts to stabilize new student pre-registration attrition rates. Although the no-show phenomenon is to be expected, institutions must continue to seek for methods to deal with it directly, aiming to reduce attrition between recruitment and entry.

At Brigham Young University, the Student Assistant's program has been developed to do this precisely. This article describes the program itself — a program designed to reach out to new freshmen, keeping them "warm" as well as informed about the institution during the period between admission and entry. Then the article reports the program's results. Also presented are the general implications and conclusions about the effects of using Student Assistants in an off campus setting.
Like most higher education institutions, BYU admits students from all parts of the country long before the target semester begins. Once admission has been granted, a time lapse with minimal contact between the new student and the institution occurs. For many entering freshmen, several months transpire before registration or orientation materials are received. To enhance communication between new students and the institution during this period, BYU has developed and implemented a Student Assistants program in which upperclassmen are selected each year and trained to pre-orient new students in their local communities preceding registration for the fall semester.

Program Objectives

The principal objective of the program is to train presently enrolled students to provide individual assistance to entering freshmen. These upperclassmen are assigned by geographic area to new students whom they personally assist with registration and orientation to campus resources through small-group local pre-orientation meetings. Using a filmstrip and informal discussion, they also explain:

1. the academic and social life of the institution,
2. special opportunities available on campus such as student clubs and other organizations,
3. how to complete registration materials in order to meet the institution's first priority deadline (mid-summer for fall semester registration),
4. the importance of attending the on campus fall orientation program, and
5. key institutional resources such as academic advising services, career development center, financial aids office, and so forth.

Selection and Training

The Academic Advisement Office has selected and trained 170 University Student Assistants during the past two years to conduct local pre-orientation sessions in early summer for entering freshmen students and their parents in over 40 states. Candidates were identified through a specially designed computer listing to include students who met the following criteria:

1. Winter Semester Enrollment — necessary for attendance at
training seminar and to coordinate arrangements for the local meeting

2. Scholarship — recipient of a leadership, talent or academic scholarship

3. Age (19-25) — represents age levels of entering freshmen class

4. College GPA (minimum 3.0) — represents average GPA for freshmen class

5. ACT Composite (minimum 24) — represents average score of freshmen class

6. Summer Enrollment — not enrolled

The computer report was produced in alphabetical order by zip code within each state. Students selected were then invited to a program briefing meeting. The meeting explained their selection as a Student Assistant candidate, assessed their interest in participating in the program’s training meeting and conducting a local pre-orientation meeting in early summer, assigned to them new students entering the institution who reside in their hometown or immediate area, and explained the program’s objectives.

Subsequently a half-day training seminar was held which

1. reviewed the Student Assistant program objectives

2. clarified the responsibilities of the Student Assistants

3. showed the use of the university filmstrip on college life and the mail registration process

4. explained the packet of resource materials

5. assigned new freshmen students to Student Assistants (An especially designed computer program generated a listing of new freshmen students in alpha order by zip code. This list was matched to the list of Student Assistants which was run in the same order.)

The focus of the training session was to prepare the Student Assistant to meet the program’s objectives. Much of the training emphasis was aligned with the Student Assistants’ experiences. Most have experienced, for example, the registration process several times and have been involved in the institution’s scholarship, financial aid and honors programs, areas about which entering freshmen students have the most questions. The Student Assistant was paid a modest $35.00 honorarium for participation in the training session and for conducting the local pre-orientation program. Indi-
vidual checks were made available in the Academic Advisement Office the first day of fall orientation.

Establishing the Local Orientation Session

To maintain program continuity, all mailings to new students were coordinated by the institution's Academic Advisement Office. However, because the Student Assistants were familiar with the facilities and community calendar, local arrangements for the site, time and date of the new student pre-orientation meeting were left to them. Once the date, time and place were set, an invitation to the local pre-orientation meeting was sent to the entering freshmen by the Academic Advisement Office. The invitation (1) congratulated the new student on being accepted to the institution, (2) introduced the local BYU Student Assistant and explained his or her role in the new student's transition to college life, (3) explained the objectives of the upcoming pre-orientation meeting, and (4) provided the date, time, and place of the pre-orientation meeting.

PROGRAM EVALUATION

Purpose

The program evaluation sought to answer the following questions:

1. Does a pre-orientation program conducted in local communities throughout the country have a positive effect on entering freshmen?
2. Did BYU's findings substantiate research literature on using students as orientation leaders?
3. What are the perceptions of the Student Assistants of the program?
4. What is the effect, if any, of the program on the institution's no-show rate?
5. What are the most important reasons why admitted students do not initiate or complete the registration process?

Sample and Returns

To answer these questions and to understand more fully the impact of the Student Assistants Program, three surveys were developed and administered. The first survey was handed out at the end of each local pre-orientation. New students were asked to evaluate the session on ten aspects of the meeting on a scale of 1 (very poor
The results of the questionnaires showed the following:

1. The quality of the local pre-orientation meeting as perceived by new students was rated high.
2. In general, the major findings of this study were consistent with national findings concerning the effectiveness of using students as orientation leaders of small group orientation sessions that focus on the individual needs of the new student.
3. The effectiveness of the pre-orientation presentation as perceived by the Student Assistant was rated high.
4. New students who attended the local pre-orientation meetings had a no-show rate of 2.3 percent, whereas those who did not attend the meeting had a no-show rate of 27.4 percent.
5. Reasons why students chose not to register after being admitted to the institution vary. The majority response was related to finances.

New students perceived the Student Assistants program as effective in increasing their awareness of university services and programs. As indicated by the data displayed in Table 1. The program was perceived as relevant to new students' needs and increased their interest in attending the university. Over the two year period of the program, forty percent (or 2010 students) of the students invited attended the local pre-orientation meeting. Including parents (1740), the combined student and parent total attendance was 3750.

Feedback from the Student Assistant was valuable. Based upon their recommendations, program changes and improvements were made from the first year to the second. Overall, the student assis-
THE FRESHMAN EXPERIENCE

Table 1
Local Orientation Quality—New Students Evaluation
(1 being very poor to 6 being very outstanding)

<table>
<thead>
<tr>
<th></th>
<th>n=296* 1982</th>
<th>Mean</th>
<th>S.D.</th>
<th>%***</th>
<th>n=1132** 1983</th>
<th>Mean</th>
<th>S.D.</th>
<th>%***</th>
<th>n=1161 Both Years</th>
<th>Mean</th>
<th>S.D.</th>
<th>%***</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall, the meeting was relevant to my needs.</td>
<td>4.92 0.91 93</td>
<td></td>
<td></td>
<td></td>
<td>4.69 0.93 90</td>
<td></td>
<td></td>
<td>4.75 0.93 91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The registration information was</td>
<td>4.83 0.89 94</td>
<td></td>
<td></td>
<td></td>
<td>4.69 0.90 91</td>
<td></td>
<td></td>
<td>4.73 0.90 92</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Information on social/cultural activities was</td>
<td>4.83 0.94 92</td>
<td></td>
<td></td>
<td></td>
<td>4.55 1.02 86</td>
<td></td>
<td></td>
<td>4.65 1.01 88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The Student Assistant was well prepared and organized.</td>
<td>5.33 0.81 97</td>
<td></td>
<td></td>
<td></td>
<td>5.13 0.94 95</td>
<td></td>
<td></td>
<td>5.18 0.92 95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Information on Fall Orientation was</td>
<td>4.56 1.06 84</td>
<td></td>
<td></td>
<td></td>
<td>4.36 1.08 80</td>
<td></td>
<td></td>
<td>4.42 1.08 81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. The meeting improved my attitude toward attending BYU</td>
<td>5.03 0.93 94</td>
<td></td>
<td></td>
<td></td>
<td>4.68 1.07 87</td>
<td></td>
<td></td>
<td>4.76 1.04 88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The meeting spoke to important concerns or presented skills/ideas that I can use</td>
<td>4.84 0.97 91</td>
<td></td>
<td></td>
<td></td>
<td>4.60 1.01 87</td>
<td></td>
<td></td>
<td>4.66 1.00 88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Before the meeting, my knowledge of the subject area was</td>
<td>3.54 1.16 49</td>
<td></td>
<td></td>
<td></td>
<td>3.56 1.12 50</td>
<td></td>
<td></td>
<td>3.56 1.13 49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Because of the meeting, my knowledge of BYU, its services and programs is</td>
<td>4.67 0.75 95</td>
<td></td>
<td></td>
<td></td>
<td>4.54 0.69 90</td>
<td></td>
<td></td>
<td>4.57 0.83 91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. The overall value of the filmstrip was</td>
<td>4.54 1.02 87</td>
<td></td>
<td></td>
<td></td>
<td>4.12 1.16 71</td>
<td></td>
<td></td>
<td>4.23 1.14 75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 296 evaluation forms returned from 970 in attendance
** 865 evaluation forms returned from 1440 in attendance
*** Percent Rated Good or Better

...tants perceived the program as having value for entering freshmen in their local area. They also felt that the training session
effectively prepared them to conduct the local pre-orientation meeting. Greater detail on these points is provided via the data displayed in Table 2.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Orientation Quality—University Student Assistants Evaluation</strong></td>
</tr>
<tr>
<td>(1 being very poor to 6 being very outstanding)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>n=45</strong></td>
</tr>
<tr>
<td><strong>n=92</strong></td>
</tr>
<tr>
<td><strong>n=137</strong></td>
</tr>
<tr>
<td><strong>1982</strong></td>
</tr>
<tr>
<td><strong>1983</strong></td>
</tr>
<tr>
<td><strong>Both Years</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1. Overall, the quality of the Student Assistants Program was</td>
</tr>
<tr>
<td>4.96 0.60 100</td>
</tr>
<tr>
<td>4.67 0.69 95</td>
</tr>
<tr>
<td>4.77 0.68 97</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2. Overall, the quality of the BYU training session (last March) was</td>
</tr>
<tr>
<td>4.48 0.80 90</td>
</tr>
<tr>
<td>4.48 0.79 86</td>
</tr>
<tr>
<td>4.48 0.88 88</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3. I would rate my overall performance in all aspects of the Student</td>
</tr>
<tr>
<td>Assistants Program as</td>
</tr>
<tr>
<td>4.70 0.59 100</td>
</tr>
<tr>
<td>4.39 0.93 94</td>
</tr>
<tr>
<td>4.50 0.66 95</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>4. I feel that my meeting was</td>
</tr>
<tr>
<td>4.80 0.55 100</td>
</tr>
<tr>
<td>4.47 0.69 94</td>
</tr>
<tr>
<td>4.58 0.67 96</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>5. The value of the program to the students in my area was</td>
</tr>
<tr>
<td>4.61 0.89 93</td>
</tr>
<tr>
<td>4.28 0.86 85</td>
</tr>
<tr>
<td>4.43 0.83 86</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>6. The appropriateness of the resources I was given was</td>
</tr>
<tr>
<td>4.98 0.73 98</td>
</tr>
<tr>
<td>4.44 0.87 86</td>
</tr>
<tr>
<td>4.68 0.95 89</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>7. The value of the filmstrip to my presentation was</td>
</tr>
<tr>
<td>4.73 1.14 82</td>
</tr>
<tr>
<td>3.95 1.24 73</td>
</tr>
<tr>
<td>4.22 1.26 76</td>
</tr>
</tbody>
</table>

* 45 evaluation forms returned from 62 student assistants  
** 92 evaluation forms returned from 108 student assistants  
*** Percent rated Good or Better

In general, those who attended the local pre-orientation meeting also completed the registration process. The no-show rate of students in attendance was appreciably lower when compared to the university’s previous no-show rate. But, overall, the university no-
show rate remained the same for both years of the program. That may have been because new students who attended the meeting were firmly committed to attend the university and were simply reinforced by the meeting's contents. Still, the data seems to indicate that there is a direct relationship between attending the local pre-orientation meeting and subsequent registration.

The most important reason given by students who did not register was that they planned to attend another institution. Attending another school, although given as an important reason was, however, really more closely aligned with finances: lower cost of institution, closer to home and better scholarship offer. Data substantiating these points are provided in Tables 3 and 4.

Table 3

<table>
<thead>
<tr>
<th>Reason</th>
<th>n=415</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| I will attend another school                | 169   | 41
| Financial Reasons                          | 134   | 32
| Future Enrollment                          | 67    | 16
| Other (e.g. marriage)                      | 42    | 10
| Don't plan to attend college               | 3     | 1

Table 4

<table>
<thead>
<tr>
<th>Reason</th>
<th>n=169</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was offered a scholarship elsewhere</td>
<td>121</td>
<td>6.17</td>
<td>1.24</td>
</tr>
<tr>
<td>Lower cost at another institution</td>
<td>103</td>
<td>5.68</td>
<td>1.03</td>
</tr>
<tr>
<td>Other institution closer to home</td>
<td>87</td>
<td>5.55</td>
<td>1.42</td>
</tr>
<tr>
<td>Job opportunity near chosen school, college or university</td>
<td>60</td>
<td>4.55</td>
<td>1.10</td>
</tr>
<tr>
<td>I wanted an environment less dominated by LDS culture</td>
<td>57</td>
<td>4.14</td>
<td>1.66</td>
</tr>
</tbody>
</table>
IMPLICATIONS AND CONCLUSIONS

If institutions admit students, they should commit both themselves and their resources to helping those students matriculate. Though students may be successfully recruited, those who lack contact with and awareness of institutional services are less likely to complete the registration process. On the other hand, students who believe in the quality and responsiveness of the institution are far more likely to persist to entry. Institutions can assist newly admitted students before their entry and thus increase registration if they focus on

* maintaining consistent and meaningful contact with new students before they enter,
* clarifying new student expectations and institutional programs,
* providing advisement and support to meet students' needs, and
* responding as far as possible to the students individually.

Consistent with these four suppositions, the study indicates that, first, new students responded favorably to an outreach pre-orientation program. If nothing more, the Student Assistants program served a public relations function for the institution. Evaluations indicated that the program successfully reduced student and parent apprehension. The Student Assistants' experiences on campus, their availability as a resource throughout the summer, and the question and answer period in the pre-orientation meeting provided avenues to adequately resolve transition problems. Specifically, assistance with the registration process and the opportunity to meet and become acquainted with other BYU students from the area proved to be invaluable assets of the program.

Second, Student Assistants, properly trained, lend a significant dimension and quality to the institution's pre-orientation process. The involvement of students helping other students is, perhaps, the most important finding of this study. Most institutions have long respected the influence and value of the peer helper. Research confirms that properly trained student orientation leaders assist new students to matriculate successfully into the college community and aid them in enhancing their awareness of institutional resources. They further provide an atmosphere in which students and parents feel willing to ask questions (Brown, 1971; Draper, 1978; Harris, 1980; Knott and Daher, 1978; Wigent, 1971). The
research literature, however, lacks information on using student orientation leaders in their local (home) communities to conduct pre-orientation activities for newly admitted students.

Evaluation of the program reinforced two findings of earlier studies. Successful new student orientation programs contain attributes of personal concern for individual students (Beck, 1980; Cessa, 1980; Hornbuckle and Mahoney, 1979; Kramer, 1983; Lowe, 1980); that is, the unique needs and concerns of each student must be addressed if college orientation programs are to be successful. Additionally, small group settings are excellent ways to ease students' transition into college (Pappas, 1967; Knott and Daher, 1978); that is, small groups are invaluable in providing emotional stability, social interaction and academic information. The findings of this study recommend continued use of properly trained Student Assistants particularly in off-campus settings. They demonstrate the institution's concern for the individual student and serve the institution's need to disseminate and individualize academic information.

Third, the majority of students who did not register also did not attend the local orientation meeting. The reasons for not initiating or completing the registration process are not statistically significant. They are better understood in relation to reasons that focus on obtaining financial resources to support educational costs. The investigation shows that at the time of admission some students consider several alternatives to financing their education and, therefore, remain quasi committed to the institution. On the other hand, students who attend the local pre-orientation meeting gained a deeper sense of commitment to the institution. The study suggests that a more concerted effort should be made to increase students' awareness of the university's financial aid programs, perhaps as part of the local orientation meeting, and to increase attendance at the meeting.

To the extent that the findings are valid, the study suggests that future inquiry should attempt to follow-up on those students who attended the local pre-orientation meeting and those who did not to determine retention after enrollment. Of particular importance would be investigations that (a) link pre-orientation programming with student development needs, and (b) compare reasons for student attrition with new students who participate in pre-enrollment activities and those who did not.
In summary, institutions can assist new students in transition from admission to registration by promoting students' understanding of the institution after admission, involving and training Student Assistants to assist new students, and conducting local pre-orientation meetings before the term begins through use of Student Assistants.

Specifically, practitioners can organize an outreach pre-orientation program designed to help bridge the gap between admission and registration by

1. identifying and organizing upper classmen as pre-orientation student assistants (identifying students according to geographic demands and needs)
2. developing and implementing a student assistants training program (design to meet institutional needs — e.g. registration)
3. specifying geographical areas from which new freshmen are admitted
4. arranging site, time and place to conduct local pre-orientation sessions; and
5. evaluating program results.

REFERENCES
Pappas, J. G. Student reaction to small-group orientation approach. College and University, 1967, 43, 84-89.
More women are coming to college for vocational or career-related reasons. Mason-Sowell and Sedlacek (1984) found that over a 13-year period, the percentage of women entering college for vocational reasons increased from 28 percent to 35 percent, while the rate for men remained at 44 percent. Kingdon and Sedlacek (1982) compared women entering college as new freshmen who had career choices which were nontraditional for women (e.g., physician, biochemist, 42 percent), traditional for women (e.g., nurse, teacher, 14 percent), or neutral (22 percent), based on 1980 United States Department of Labor data on percentages of women in occupations. Twenty-one percent of their sample had no career goal. Kingdon and Sedlacek found that the nontraditional group had higher high school grades, better study habits, and more interest in graduate school and investigative occupations, while the traditional group was more interested in social occupations and said that a college degree was the only way they could enter their chosen career. The neutral group felt weakest in math and tended to choose artistic careers. At the same university, Knight, Sedlacek and Bachhuber (1983) reported that women bachelor's degree recipients were largely employed in areas that have been traditional for them. The apparent discrepancy between women entering college with nontraditional career goals but accepting traditional positions upon graduating raises many important questions for counselors, advisors, and educators. What happens to these women with nontraditional goals as they proceed through school? Do they change to traditional majors? Do they remain in
nontraditional majors, but resign themselves to traditional jobs upon graduation? Should counselors encourage women to pursue nontraditional fields? Or prepare them for the realities of the job market?

The purpose of the present study was to attempt to answer the above and related questions by continuing to study the group of students reported in Kingdon and Sedlacek, and to compare them to men with traditionally male majors.

**METHOD**

Of the 530 women reported in Kingdon and Sedlacek (1982), the 79 percent (N = 149; 390 final usable N due to missing data) who indicated a career goal (42 percent nontraditional, 14 percent traditional and 22 percent neutral, i.e., neither traditional nor nontraditional) were included in the present study. Also included were 309 male students who entered the university as freshmen at the same time as the 530 women. Eighty-seven percent of the males had traditionally male career interests, while only 2 percent had interest in traditionally female careers.

The subgroups were compared with respect to encouragement to pursue goals, SAT scores, college GPA after four semesters, persistence in original major after four semesters, and persistence at the university after four semesters. Data were analyzed by Chi-square or analysis of variance at the .05 level.

**RESULTS**

**Differences Among Women**

Women with nontraditional goals received less encouragement to pursue those goals in high school than women with traditional or neutral goals. Nontraditional women had higher SAT scores than traditional or neutral women. There were no significant differences in college GPA after four semesters, persistence in original major after four semesters (about 2/3 were in the original major), or persistence in school after four semesters (76 percent were still in school).

**Nontraditional Women and Traditional Men**

Compared to men with career interests traditional for men (same careers which are nontraditional for women), nontraditional wom-
en received more encouragement to pursue their career interests, had lower Math SAT scores and higher college GPA’s, but were not different on Verbal SAT scores, persistence in their major, or remaining at the same school after four semesters.

Sixty-three men and 42 women with interests in engineering were also compared, and no differences were found on Math or Verbal SAT scores, GPA after four semesters, or persistence in school after four semesters. However, females with engineering goals reported more encouragement to pursue these goals than did males with engineering goals.

DISCUSSION

The results indicate that, after two years, nontraditional women are persisting in school and in their nontraditional fields. They are doing as well as their traditional female counterparts in GPA’s and persistence in school. However, nontraditional women are getting higher GPA’s than traditional men, and persisting in their majors and in school as well as traditional men. Interestingly, when specific major was controlled, male and female engineering students were undistinguishable in all ways examined (including Math SAT and college GPA) except that women reported more encouragement to pursue their goals. So we know that nontraditional women are not leaving school or switching majors more than other students. We also know that nontraditional women report more encouragement to pursue nontraditional interests than traditional men, but less than traditional women.

While we are not sure what career choice problems this group of nontraditional women will face in their next two semesters in school, we can make some good estimates from the literature and our experience. The pressure to choose more traditional majors will increase. As women pursue nontraditional majors and become more specialized, however, their flexibility to shift to traditional fields will decrease. Harmon (1972, 1981) found that women tend to select nontraditional careers in their teens, but then shift to more traditional areas in their twenties. She feels this is due to a lack of environmental support to remain nontraditional.

Here the role of counselors and advisors is particularly crucial. The present study provides evidence that nontraditional women tend to persist in their fields through four semesters, and the writers feel that they deserve to be met and helped further along their
chosen paths. Nontraditional women report less encouragement than their traditional female counterparts; perhaps they need less; but a university committed to the education and development of women cannot leave this to chance. It is suggested that more resources be expended in identifying and encouraging nontraditional women.

Academic advisors may need to be more initiating with their nontraditional advisees, so the advisees have the information and support they need. Counselors also could provide more specific programming, such as groups or counselor outreach and training programs to serve this group. One important aspect of such counseling programs concerns the attitudes of men and women toward women in nontraditional occupations. Both men and women may be uncomfortable with women in nontraditional fields (Knight and Sedlacek, 1983; Shinar, 1978), which may be a source of much pressure on nontraditional women. It is possible to alter sexist attitudes in college students as early as during freshmen orientation programs (Sedlacek, Troy & Chapman, 1975). Career Development and placement staff could make extra efforts to provide programs which are tailored to the needs of women with nontraditional majors. Such efforts could mean the difference between nontraditional women continuing to resist pressures and entering and helping alter traditionally male occupations, or simply blending in with traditionally female roles in society.

REFERENCES
Advertising in Higher Education

BEVERLY A. MIKLICH

INTRODUCTION

Advertising is one of the more visible ways that marketing has entered the field of higher education. It is also one of the most criticized of the marketing methods, perhaps because it is so non-traditional in nature.

Advertising is defined as non-personal communications carried through paid media under clear sponsorship. Specifically, advertising includes the placing of paid advertisements in the mass media aimed at prospective students. There is a distinction between publicity and advertising that needs to be made. Only advertising results in a charge to the organization by the media; publicity is free of charge.

As institutions of higher education face the 1980's, a major challenge is the projected enrollment decline. Many have responded by increasing their marketing efforts, including increased promotional efforts. The corporate world has long found media advertising a worthwhile investment; but institutions of higher education have not used advertising extensively. Thus, administrators charged with maintaining enrollments wonder whether they should use advertising and how effective it is in achieving the desired results.

Most college administrators have no advertising management experience or training nor do they have the information available to make judgments about the relative effectiveness of their media campaigns. Often no money is allotted for advertising and the administrator finds it too difficult to convince those who control the purse-strings that advertising is a wise investment, especially in an era of financially hard times. With no data available to argue a position for advertising in university marketing efforts, the task of the administrator is made more difficult.
If an administrator has expenditures for advertising, it is very likely that he or she does not have the information about how effective the advertising campaigns have been. And rarely does the administrator have the data to be able to compare the effectiveness of his advertisements to those of his competitors.

The purpose of this study was to identify the degree of use of advertising as a promotional strategy, to assess the quality of current advertising, and to determine within a selected sample how effective advertising efforts have been. Over one hundred advertisements were analyzed for content, strategy, and other qualities. In a separate study, advertising activity was examined in a sample of independent institutions of higher education and compared to measures of marketing effectiveness.

BACKGROUND LITERATURE

Is advertising being used in higher education? Patrick Murphy and Richard McGarrity surveyed colleges and universities in 1976 and found advertising use in its infancy. While newspaper and magazine advertising represented about twelve percent of the recruiting budget, fifty percent of the schools had used it for only about three years. The same was true for radio and television. They were not ready to predict a trend but did suggest that as competition for students increases so would the willingness of schools to use advertising.¹

Blackburn found a much higher usage rate. His survey done in 1979, three years after Murphy, found sixty percent of the admissions/recruiting programs indicated that advertising had been or was a part of their activity. He found the usage rate much higher among independent institutions. Ratings of effectiveness were generally average.²

A report on marketing done by the Council for the Advancement and Support of Education (CASE) devotes an entire section to examples and guidelines for use of advertising. Some of the benefits listed are the control of external communications, ability to es-

ADVERTISING IN HIGHER EDUCATION

But does it work? In one example reported by CASE, the University of Akron developed an advertising campaign in conjunction with an agency. The media campaign, in its third year, has built awareness and also enrollment. The director of university relations reported a ten percent increase in students from the target counties. Wilson College in Pennsylvania found success with media which included television, radio, and newspaper.

Advertising may work better for adults than for attracting youth. In a study of traditional college prospects, radio commercials and newspaper advertisements ranked very low with the respondents in influencing their decision to enroll. On the other hand, Malcolm Knowles recommended newspaper advertising as an effective way to build prospects for adult programs. He lists various advertising tactics that are more effective than others.

Admission officers and others using advertising are urged to emphasize the credibility of the advertising used by their college or university. The Carnegie Council has documented several instances in which the credibility of the advertised programs of colleges and universities has proven to be suspect. The law forbids false, deceptive, and unfair advertising.

METHODOLOGY

Two separate studies were undertaken to get a better perspective on the use and effectiveness of advertising by institutions of higher education. The first approach, Phase One, was a content analysis, as described by Bowers, of a sample of newspaper advertisements from colleges and universities in two geographical areas. A sample

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4Ibid., p. 46.
8John Waite Bowers and John A. Courtright, Communication Research Methods, Chapter 10, Scott Foresman, 1983.
of 107 advertisements was selected from the *New York Times* and the *Los Angeles Times* in the Spring of 1982. Twenty-nine items of analysis were applied to the sample advertisements.

Also in the Spring of 1982, in-depth case studies were conducted in twelve cases at ten independent institutions of higher education in the Los Angeles area. Sixty-four key marketing personnel were interviewed, questionnaires were administered, and documents were reviewed. From these data an analysis was made of the marketing effectiveness of the institution in achieving its overall goals. The relationship of advertising usage, as reported by the organization, to the measures of marketing effectiveness was analyzed.

Previous studies of advertising use and marketing effectiveness have primarily relied heavily on the mailed survey to collect the data. No previous studies of this nature, utilizing case study methodology, were found in the literature.

The sample selected for this research project was chosen because the institution demonstrated recent enrollment growth or was observed to be using innovative marketing strategies, addressing new clientele, or adding new types of programs. The sample included eight non-profit organizations and two for-profit institutions. All are accredited, independent institutions of higher education granting undergraduate or graduate degrees. They range in size from 1,300 enrolled to one enrolling over 27,000. Three were considered large institutions, i.e. they range from 6,800 students to 27,600. The rest were small in size. The age of the institutions ranged from five years to 102 years. Only one had no adult programs and all but two offer programs at off-campus sites. Five offer liberal arts education as a main part of their programs; five prefer to concentrate on professional degree offerings. Tuition price per unit varies from $70 per unit to $253 per unit. Only two of the institutions appear to be well endowed; and several exist only on tuition dollars.

In looking at a five-year history of enrollment in each organization, the patterns varied considerably. Three organizations reported high growth over this period, three reported slight growth, and four have reported a decline in enrollment.

In most cases the data about advertising use was made available by either the vice-president responsible for marketing or the dean or director of admissions.

Two questionnaires were administered in addition to the inter-
ADVERTISING IN HIGHER EDUCATION

views conducted. The Marketing Index for Higher Education (MIHE) was an adaptation of a survey originally used in private industry by Philip Kotler. John Scigliano modified the survey for use in higher education and administered it to a nationwide sample of community college admissions officers. The questionnaire contains fifteen items designed to measure marketing effectiveness in five different ways: (1) customer philosophy, (2) integrated marketing organization, (3) adequate marketing information, (4) strategic orientation, and (5) operational efficiency. The total score on this instrument was the individual's rating of the perceived marketing effectiveness of the organization.

The second questionnaire administered to the study sample was the Marketing Methods Survey (MMS) developed by the author and adapted largely from a survey done by James C. Blackburn. This questionnaire contained sixteen items which briefly describe various marketing methods and ask respondents to rate both the use and effectiveness of each method for their organization. Scoring on this instrument yielded a low, average, or high ranking of marketing effectiveness.

The interviews were guided by a questionnaire developed by the author, the Marketing Audit for Higher Education.

In addition to the interviews and questionnaires, the advertising used by each institution was analyzed using the same content analysis format applied to the larger sample in Phase One.

Analysis — Phase One — Content Analysis

The findings from the analysis of college and university advertisements were divided into three sections: first impression, copy tactics, and content. A quick overview identified the first impression appearance and the major positioning of each advertisement. Less than a fourth of the advertisements appeared to have been "professionally" done; that is, they included graphics, white space, creative layouts, or creative headlines. The results confirm the researcher's hypothesis that most higher education advertising is lacking professional appearance and preparation.

The second factor determined in the overview was the identification of major positioning. This analysis revealed the primary features and benefits that appeared in the advertisements. Nearly one-third of the institutions advertise to a special-interest group. Professional development programs with degrees or credentials
are more frequently advertised. The working adult is sought after by fifteen percent of the schools and very few advertise continuing education offerings in paid news media. The bulk of special interest advertising is done on the East Coast while the Los Angeles area has more advertising to reach the working adult as well as the offering of credentials/degrees.

This finding suggests that in the more competitive East Coast environment greater segmentation may be occurring which results in more attention given to special interests. Community colleges in California may be meeting this need yet do not use news media advertising. Greater attention to adult clientele in the Los Angeles market is very likely caused by several institutions who have shown success with advertising to adults, creating a more competitive marketplace. There was little difference geographically in the number of institutions that mentioned degrees as a benefit.

Most advertising was being done by the Liberal Arts college, usually an independent institution. Very little advertising appears in paid media for state and community colleges, as would be expected because of public funding.

A study of copy tactics reveals that most advertisements in higher education are small and medium sized, do not use a coupon, almost always have the contact point (address or phone number), never state the price, and half the time include a logo. Advertisements run a little larger in the Los Angeles area; this may be due to newspaper rates or local competition. There is slightly more use of the logo in the Los Angeles area; this may be related to the slightly higher professional appearance of advertisements from this area.

Small advertisements probably accompany small advertising budgets and account for the lack of coupon use (takes space). Higher education is "price sensitive" from the standpoint of being embarrassed about having to charge a fee but some colleges may be missing a competitive advantage by not mentioning price.

The use of illustrations is very sparse in higher education advertising, giving it an unprofessional appearance. Thirty percent of the sample advertisements contained an illustration; most did not.

Even if an illustration is used, it is only moderately successful at getting attention, usually because it is most often small in size. Photographs were used more often in Los Angeles and drawings appeared more in East Coast advertisements. There was an even split between use of an illustration that was aimed at the audience or tar-
get group and that which shows a benefit. The benefit most often displayed was a picture or drawing of campus buildings; a common but not very creative execution.

Copy was examined in terms of use of headline, length, type, and use of persuasion techniques. Nearly all of the sample advertisements used a headline. It was usually very short, consisting of the name of the institution or program. It was usually direct in the sense of naming the college or program offered. Indirect headlines more often made use of a benefit, such as career opportunity. Copy was most often very short and descriptive in nature, again probably limited by space which is limited by budgets. Persuasion was used by urging action such as sending for more information or by announcing a deadline date for applications.

Positioning was of major interest in analyzing the content of higher education advertising. The positioning factors considered were the type of program offered, type of clientele appeal, institutional features and benefits, program features and benefits, and outcomes communicated.

Tabulating the data on the type of program offered reveals that business programs are by far the most common offering made in newspaper advertising, especially in the Los Angeles area where forty-three percent of the advertised college programs are in business. No advertising is done in the basic subject areas. This is not surprising in the adult market where it is known that the disadvantaged are under-represented.

The average number of programs listed per advertisement ranged from two to five with the typical case being about three programs. It is probably seen as a cost-effective strategy to use limited space to advertise more than one program but may reduce the impact.

Institutions of higher education sometimes described themselves in addition to their programs; however, the description was usually limited to mention of equal opportunity or accreditation. Accreditation status was used more often in the Los Angeles area, probably because of the existence of several non-accredited institutions who also advertise. Mention of location was more of a practice in the East Coast advertisements aimed at attracting residential undergraduate students.

Examination of program features and benefits can provide a major clue to the positioning tactics of institutions. The major posi-
tions, as indicated by features or benefits, in order of popularity were:

- special interest appeal
- professional development
- credentials
- working adults
- quality
- continuing education

Twenty-nine percent of the advertisements appealed to some special interest such as personal or supportive climate or financial aid or programs with a special concentration. Professional development accounted for nineteen percent of the positioning strategies and included offers of career opportunity or teaching practitioners. Credentialing was mentioned in seventeen percent of the advertisements, including either degrees or certificates. Fifteen percent of the schools selected a major position aimed at attracting the working adult where features most often included evening classes, work-study options, and short time to completion. Convenient location was also an appeal to this group as was part-time attendance. Quality, mentioned by fourteen percent of the institutions as a major position, was usually defined by describing the outstanding faculty or academically challenging program. Continuing education was very lightly advertised (only six percent of the schools) and most often included summer programs or mention of credit/non-credit options.

Outcome information is that which tells a potential client about the success of the institution or its graduates. Higher education does not appear to use this tool in advertising. The types of outcome data presented were very “soft”; examples were used of the number of graduates or general phrases such as “thousands have advanced their careers” or mention of “successful alumni”. Colleges could improve their advertising by communicating instructional results.

Analysis — Phase Two — Case Studies

Most of the private institutions participating in this study have discovered the benefits of media advertising. Advertising is a promotional method used by ten of the twelve cases in this study. Newspaper advertising is the most popular form, but of the ten who use newspaper media six also use radio advertising and six use magazines, as well. Four cases of the ten use all three media. Two
cases do not use media advertising except for a single advertisement in a guide to colleges and universities. These two cases are the most traditional organizations serving the young general undergraduate students. The more intensive use of advertising is among those schools that also serve a high number of adult students.

Other forms of media used included some local television (very limited), company newsletters, posters, trade journals, and direct mail. Direct mail is heavily used as a promotional device.

### TABLE 1
Comparison on All Measures of Advertising Usage and Effectiveness

<table>
<thead>
<tr>
<th>Code Name</th>
<th>Interviewer Rating of Usage</th>
<th>Interviewer Rating of Effectiveness</th>
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<th>*Use Agency</th>
<th>*Use Measure of Ad Effectiveness</th>
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**NOTES:**

1. MMS item: #7 Advertising.

2. Use objectives and plans: the interviewer's rating of the degree to which the organization has written objectives and written advertising plans, as separate from or part of the marketing plan.

3. Use agency: the researcher's assessment during the interviews to determine if the organization uses a professional outside advertising agency to assist with their advertising efforts.

4. Use measures of ad effectiveness: refers to the researcher's rating on the basis of interview data of the degree of development of measures to determine the effectiveness of any given advertising campaign.

*Ratings based on interview data.*
Where advertising is used by the organization, it appears to be effective. In ratings both by the researcher as well as the participants themselves (MMS), advertising is rated average or better in effectiveness. Table 1 presents a comparison of the interview and MMS ratings of advertising usage and effectiveness. On the MMS ratings, three cases who use advertising at what they considered a “high” level, rated its effectiveness lower, while only one case rated effectiveness of advertising higher than the usage rating.

Table 1 shows additional factors that help describe the extent of utilization of advertising by the organizations studied. Five of the organizations have set advertising objectives and advertising plans into writing. Five also use an advertising agency to prepare and place their media advertising. Seven have some form of tracking their advertising results; four of them have quite extensive systems.

Advertising effectiveness is most often measured by the number of inquiries that an advertisement generates. There are usually three types of responses desired: return a coupon, make a telephone call to the school, or attend an informational meeting. These

<table>
<thead>
<tr>
<th>Code</th>
<th>Usage of Advertising</th>
<th>Usage of Publicity</th>
<th>Usage of Positioning</th>
<th>Usage of Differentiation</th>
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*Ratings based on interview data*
are the typical measures recorded by those schools that have effective advertising tracking systems. Some schools also attempt to trace the results of advertising to the number of applications they receive. This is possible but the results are questionable in those cases where there are intervening variables such as promotional literature or counseling. Results vary from case to case but the number of inquiries may range from 20 to as high as 80 percent of total inquiries that are generated by media advertising.

Publicity, positioning, and differentiation are all concepts that are associated in the literature with advertising. However, the data showing the comparison of these functions (Table 2) suggest no apparent relationship among them. Organizations that use advertising do not necessarily use publicity. In fact, the two organizations that use publicity heavily do not use advertising. High users of positioning also happen to be high users of advertising but the relationship does not hold up in the opposite direction. High advertisers are not necessarily making a conscious effort to position themselves in the market using media advertising. Differentiation is successfully used by only three of the twelve cases and these are not always the highest users of advertising.

The use of advertising can be more strongly related to several other variables. The data displayed in Table 3 compare the use of advertising to the primary markets served by the organization. These interview data reveal that the use of advertising is much higher in those organizations that are attempting to reach the adult market than in those serving youth. This finding was easily predictable because young students are reached through the high schools while adults are dispersed throughout the population. Adults are more likely to be readers of newspapers and magazines and thus would be more easily reached through the media. Radio may be more appropriate for reaching the youth market, but is not used for that segment by any of the colleges in this study.

The extent to which an organization holds a competitive view seems to be related to the use of advertising. Several schools felt "forced to advertise" to keep up with the competition. Table 3 also shows that there is some relationship between the use of advertising and the overall rating of marketing effectiveness of the organization as measured by the MIHE. Those organizations that are developing more effective marketing also seem willing to invest in advertising.
TABLE 3
Factors Related to the Usage of Advertising

<table>
<thead>
<tr>
<th>Code Name</th>
<th>*Usage of Advertising</th>
<th>*Market Served (Adult/Youth)</th>
<th>*Competitive View of Organization</th>
<th>MIHE Rating</th>
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NOTES:

1 Competitive view is a judgment on the part of the researcher as to the level of interest, knowledge, and concern for the competition on the part of marketing management.

2 MIHE rating is the overall rating of the organization as measured by the Marketing Index for Higher Education.

*Ratings based on interview data.

There is no apparent relationship between current use of advertising and the recent enrollment history of the organization. While marketing staff tended to report advertising as being highly used and rate it to be of average effectiveness, advertising use does not appear to be related to the enrollment figures for the past five years. Several cases reported increases in enrollment when they use advertising; however, there are other variables that tend to negate the impact that advertising may have on enrollment.

Most of the organizations have a feeling for what works well for them in advertising. Several participants use a rule of thumb that at least three exposures are necessary to create appropriate levels of awareness in their audience. Repeating a consistent image is found to be more effective in terms of getting responses to an advertise-
ment, as well as developing an image. Several organizations have taken the advertising strategy of running a small advertisement many times rather than using a larger advertisement and running it less often. For them, frequency has paid off.

Timing of the advertising campaign is recognized as important by most of those using this marketing method. The usual practice is to have an advertising campaign three months to six weeks prior to registration. Most organizations place their advertising on some form of seasonal schedule rather than at regular intervals throughout the year.

Being able to target the clientele is seen as the most effective advertising strategy by those attempting to extend their reach to specific groups. This means that the advertisements are designed to appeal to a specific group of people or to stress the benefits that would appeal to a specific group. The most effective practice appears to be to promote the program or specific degree rather than individual courses or the institution as a whole. For this reason, there is general agreement that advertisements work much better in outlying areas or locations where there is both less competition for the reader's attention and a target geographical market. Local papers appear to work as well as, if not better than, large metropolitan papers and cost much less.

The use of magazines appears to have two benefits. The first is that they allow the college to communicate to a specific target market. For example, one school got about 50 percent of its inquiries from advertising done in a professional magazine (trade journal) that reaches its target population. The other effective use of magazine advertising that is being made by one successful educational advertiser is to create an image of its business programs for corporate leaders. Well-done, professional advertisements placed in business journals and flight magazines have been effective in improving the image of the school among business and industry.

When it comes to the development of advertisements, the use of an advertising agency is considered the most effective practice. But various approaches to layout and format have been found to be effective. Some schools find that larger display ads with a coupon generate more responses. A professionally done advertisement can triple the number of responses (as it did in one case) when compared to an advertisement designed by staff members with no advertising training.
Testimonial advertisements are effectively used by several organizations. Testimonies from students, faculty, or alumni help to develop the credibility of the program. Testimonials which show faculty accomplishments or indicate outcomes are effective. Only one school made any effort to publicize outcomes in its advertising copy.

Larger size advertisements, with more white space and a coupon, are seen as most effective in generating responses as well as improving the image of the organization. Small advertisements are less costly but the fear is that the image of the organization will be associated with less desirable institutions if smaller ones are used.

Several schools have discovered that combining radio and newspaper advertising works best. One school has conducted a market test using each separately and then combined. The cost per inquiry was reduced and the number of inquiries increased by combining radio and newspaper advertising.

Most schools have a marketing staff member responsible for advertising; an effective practice is to have a top level administrator who controls the content of the advertisement. This central administrator is most often the person who relates to the advertising agency to develop a consistent image. It is important that the advertisements do not misrepresent the organization. For example, one organization has a high percentage of international students but its advertisements do not reflect this make-up of its student body. When the image doesn't match the reality, the attrition rates are higher.

There are two types of advertising used in private higher education. The first might be called “institutional” advertising. Its purpose is to promote an overall image of the college or university. The second and more often used may be called “direct response” advertising. The benefit of this type of advertising is that its intent is to stimulate an inquiry by a prospective student. Almost all of the colleges in this study use direct response advertising.

To measure the effectiveness of direct response advertising is fairly easy if the organization has an advertising tracking system in place. This can be as simple as noting the number of telephone calls that come in after an advertisement has run. More complex tracking systems will identify the advertisement media, dates, code coupons, code telephone lines, etc. in attempts to trace the inquiry to the source of initial information. Some schools collect these data at
the time of inquiry; others wait until the student enrolls to ask about their source of initial information. For accuracy, the former system is preferred.

While most participants agreed that newspaper advertising was probably the lowest cost per inquiry, there was some concern mentioned by several advertising schools that the qualifications of the inquiries tend to be lower when they are attracted by advertising. In some cases an advertisement can appeal to unqualified applicants and result in a low conversion rate. Those interviewed felt that a recipient of a telephone call would convert into an applicant at a much higher rate than one who responded by sending in a coupon. However, using a coupon in the advertisement can significantly increase the total responses generated by the advertisement. One school found that an advertisement with a coupon solicited more telephone calls than one without the coupon.

An analysis of the actual advertisement used by seven of the organizations found that three of them prefer large advertisements while three prefer smaller sized advertisements and one uses both. All use illustrations of some sort and emphasize the program offered.

Most of the advertisements outline benefits of the program as their copy strategy, and all but two organizations use only response advertisements. Two schools occasionally use a general institutional advertisement. One school uses a large advertisement with many courses listed as a market test to determine which courses to offer in a particular geographical area.

SUMMARY

Most of the schools in the case study have discovered the benefits of media advertising, especially newspaper advertising. Several schools also use radio with the maximum effectiveness coming from organized campaigns combining newspapers and radio. Advertising is used more effectively to reach adults, and those organizations using it extensively also employ an agency to assist them. Advertising effectiveness is usually measured by the number of inquiries that it generates.

Publicity and advertising are not necessarily used heavily by the same organization. Advertising is more common in those organizations with a more competitive view of their environment. The or-
ganizations that use advertising also are more likely to have scored high on the MIHE measure of marketing effectiveness. However, enrollment history does not seem to be related to use of advertising even though some organizations reported that enrollment goes up when advertising is used. There are many intervening variables.

The timing of the advertising campaign, the ability to target the particular group, and repeating a consistent image are all advertising practices that have been found effective. Most of the advertising done by the organizations in this study is direct-response advertising designed to attract students. Very little image-building appears to have been used.

RECOMMENDATIONS

Advertising can be a cost-effective means of communication to potential students and a way of presenting a consistent image of the organization to the public. Advertising is particularly effective in trying to reach the adult market.

If the decision is made to use advertising, it should be done with the assistance of a professional advertising agency. Media costs are high. To achieve maximum efficiency it pays to develop a long-term relationship with an agency that can develop and present the type of image the organization desires.

Advertising activity should be managed by someone from central administration. The quickest way to dilute the image of the institution is to allow for decentralization of the advertising function. Central control of advertising development is essential in maintaining the message and positioning of the organization’s image.
Book Review


Since 1976, The College Board has published a number of books, the contents of which have been extremely useful to admissions officers and registrars. The subjects of these works have changed over the last four years. First, the concepts of marketing were introduced (CEEB, 1976 and CEEB, 1980). Then, readers were educated further by the introduction of market research (Litten, Sullivan, and Brodigan, 1983). During the same year, The College Board published a small but pithy work concerning the manner in which students select colleges and universities (Zemsky and Oedel, 1983). The work reviewed here, became available in 1984. Hossler, through the good offices of The College Board, has provided college and university administrators with what appears to be the most complete work available on the broad topic of enrollment management.

*Enrollment Management, An Integrated Approach*, is a short book which busy admissions officers and registrars can read and use easily. Don Hossler has provided, in his book, a full and very up-to-date discussion of a great deal of the literature which pertains to the matter of enrollment management. Indeed, the bibliography is probably worth the price of the book by itself. The author's thoroughness in his review of a large and multi-disciplinary collection of books, papers, articles, and reports, is extremely commendable.

Hossler is also extremely thorough in his discussion of a whole "pipeline" of topics which are related to attempts at successful enrollment management. The influence of Howard Bowen is obvious in the discussion of the demand for higher education. That discussion is followed by similarly thorough discussions of college choice, pricing and financial aid, retention, impact of college, outcomes of
college, etc. One of the most impressive chapters was contributed by Terry Williams, a colleague of Professor Hossler at Loyola of Chicago. That chapter concerns achieving and understanding of the student-institutional fit.

Admissions officers and registrars will find the final chapter entitled, “Toward Enrollment Management,” to be extremely useful. It is possible that some admissions and records professionals may wish that Hossler and his colleagues had spent more time on the designing of an enrollment management plan and a little less time on extensive reviewing of the literature. However, Hossler has made very clear the notion that the “how tos” of enrollment management will vary greatly between and among institutions and their various target audiences.

There is, quite clearly, no “boiler plate” solution to the challenges of enrollment management. Therefore, the review of the literature associated with the various subchallenges of enrollment management has the potential for being extremely useful to practicing or potential enrollment managers. Needless to say, this work is highly recommended as potentially quite beneficial reading for all admissions officers and registrars.

James C. Blackburn
Editor, College and University
As is the case with most professional journals, there is in each edition of *College and University* an invitation for the submission of papers for publication. Always, enough articles have been submitted to afford the editors some selection. It is my hope that the selections will become even broader in the months to come. In the following paragraphs, advice is offered to those who may wish to submit manuscripts for consideration.

Adequacy of illumination is easily balanced with brevity and conciseness. In scholarly works, these characteristics are especially prized. Unduly lengthy articles are seldom useful to *College and University* readers.

Numerical data are usually displayed best in a chart or figure. When using percentages in a text, it is best to use the word and not the symbol, i.e. “percent” not %. Displays of data should be used sparingly. It is easy to lose the illustrative purpose(s) of data.

Modern grammarians have applied some form of situational ethics to many of the old rules. There are several to which the editors of this journal have continued to adhere. The splitting of infinitives is still quite unattractive. Prepositions are still poor choices as the final word(s) of a good sentence. The personification of inanimate things, e.g. studies, buildings, reports, and data, are still bits of magic beyond the reach of most mortals.

Finally, good scholarly papers are more often written in the third person and the past tense. The works of others should certainly be cited in the past tense. For instance, it is difficult to determine what Clark Kerr says. We can determine with some facility what Kerr may have said, wrote, or was quoted as having said.
There are surely much other good advice which might be offered. The above is enough for now. Suffice it to say that readers are warmly encouraged to provide papers for consideration. Attention to these comments will probably increase the enthusiasm with which such contributions are considered.

Research, writing, and sharing with colleagues are all among the best functions of a professional association. The American Association of Collegiate Registrars and Admissions Officers is surely no exception. All of the AACRAO members and College and University readers are encouraged to submit articles, papers, or essays for consideration.

JCB
November 6, 1984
THE AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS AND ADMISSIONS OFFICERS, founded in 1910, is a professional education association, voluntary and non-profit, of cooperating collegiate level institutions. Its general purpose is to promote the advancement of education, particularly higher education, and the professional enhancement of administrative areas in higher education pertaining to admissions, financial aid, institutional research, records, registration and closely related functions among institutions of higher learning.

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COLLEGE AND UNIVERSITY welcomes for consideration MANUSCRIPTS from throughout the world. They should be sent to James C. Blackburn, Editor, College and University, Carter Hall UNC, Greeley, Colorado 80639. Manuscripts relating to the general and specific purposes of AACRAO, and those concerned with emerging issues relating to the responsibilities and functions of AACRAO members and new patterns for dealing with them are desired. Members of AACRAO are encouraged to submit them.

Manuscripts should be in standard format. Brevity is a much desired quality. One copy, only, the original, need be submitted. Send stamped envelope for return of manuscript that is not accepted. Name, position and mailing address of author and co-authors are requested. The author assumes responsibility for obtaining permission to quote published material and for the accuracy of references. Manuscripts relying upon extensive quotations for content normally are not considered suitable for COLLEGE AND UNIVERSITY.

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