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JUDITH R. BOGEN is Assistant Dean of Students at the University of Oregon.

DAVID G. BROWN is Associate Professor of Biomedical Sciences and Assistant Dean of the Graduate School at Southern Illinois University at Edwardsville.

DAVID W. CHAPMAN is Associate in Evaluation and Research in Project Advance, Syracuse University.

CARL M. DICKINSON is Staff Associate in the Educational Assessment Center at the University of Washington.

THOMAS L. W. JOHNSON is Associate Registrar at The University of Wisconsin-Madison.

BARRY Laine is Program Editor of Stagebill Magazine, Lincoln Center for the Performing Arts and former Lecturer, Medgar Evers College, City University of New York.

KATHERINE LOHEYDE is Director of the MAT Program in the Department of English at Cornell University.

J. BRUCE LONG is Assistant Professor of Asian Religions at Cornell University.

CLIFFORD E. LUNNEBORO is Associate Professor of Psychology and Director of the Educational Assessment Center at the University of Washington.

PATRICIA W. LUNNEBORO is Associate Professor of Psychology at the University of Washington.

ROBERT W. MENDEL is Associate Professor and Chairman of Endodontics and Member of the Admissions Committee at the School of Dentistry, University of Louisville.

CHARLES A. REPP is Associate Dean for Student Services at George Mason University.

MIRIAM B. ROCK is Associate Dean of the College of Arts and Sciences at the University of Rochester.

JAMES G. ROTHWEILER is a graduate student in Sociology and Business Administration at Southern Illinois University at Edwardsville.

ANNE J. RUSSELL is a Graduate Student in the History of Education at Cornell University.

J. ROBERT RUSSO is Professor of Psychology and Associate Dean of the Graduate School at Southern Illinois University at Edwardsville.

ROBERT A. SCOTT is Associate Dean of the College of Arts and Sciences at Cornell University.

A. FREDERICK SEAMAN is Assistant Registrar at the University of Virginia.

CHARLES E. SKIPPER is Associate Dean of the Graduate School at Miami University.

W. GARY TABB is Assistant Professor of Restorative Dentistry at the School of Dentistry, University of Louisville.

FRANKLIN P. WILBUR is Associate in Development for Project Advance, Syracuse University.
The Opening of Admissions
Implications for Policies and Procedures*

ROBERT A. SCOTT

This paper examines briefly the issues of equality and excellence, the barriers to post-secondary schooling, the organization of college admissions, and the widening of access to further schooling. It then utilizes these results in an intensive examination of a single institution's policies and procedures.

EXCELLENCE. EQUALITY.

"Open Admissions" is the most recent expression of the time-honored and still dynamic ideal of equal opportunity. In libraries around the world, shelves reach to ceilings with references to the forces and indicators of the steady movement toward this goal, especially in educational opportunity. The course from aristocratic to meritocratic to egalitarian admissions philosophies has been charted.¹

At no time have these democratic sentiments been more alive and effective than in the United States during the past one hundred


years, a period marked by the Morrill Land Grant Act (1862) on the one end and by the City University of New York’s Open Admissions Program on the other. In the 1960’s and early 1970’s especially, the theme of equal educational opportunity came to be honored as the fulfillment of a national dream.

On an abstract level, there was little dissent to this trend. However, when it was time to honor the pledge of equal opportunity, several long-standing arguments heated up. The basic question behind them was, “Higher education for whom?” Some said that the opportunity for education after secondary school should be based solely on academic merit. Others, like a recent Michigan governor, said that “the education of a citizenry is fundamentally a state responsibility, based upon the belief that society rather than the individual is the primary beneficiary of the value of education,” and therefore it should be available to all who want it.

Thinkers in the first tradition include Thomas Jefferson, who, in 1778, proposed an educational system in which a “natural aristocracy” of talent would rise to the top, permitting

... the best geniuses ... [to] be raked from the rubbish annually. Another is Charles Eliot, who in his 1869 inaugural address at Harvard said,

The community does not owe superior [i.e., higher] educa-
to all children, but only to the elite.

In more recent times, Sir Eric Ashby has written,

All civilized countries ... depend upon a thin clear stream of excellence to provide new ideas, new techniques, and the statesmanlike treatment of complex social and political problems. Without the renewal of this excellence, a nation can drop to mediocrity in a generation ... the highly gifted student ... needs to be treated as elite.

Spokesmen for egalitarianism in education argue that everyone, not just an elite, should have access to schooling after high school.

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In February, 1970, the Board of Trustees of the National Urban League asserted,

... that our nation's colleges and universities must adopt or reestablish policies of open admission and direct both public and private funds into creating opportunities whereby any person who has completed requirements for graduation from an accredited high school or its equivalent will be assured access to higher education.6

These positions represent two schools of thought, one honoring what adherents consider to be excellence, the other honoring equality. One might conclude after reading these statements that the notions are mutually exclusive. They need not be. Excellence is not the possession of any one field, or skill, or virtue, but exists in many varieties. There is excellence in computation and excellence in conjugation; excellence that requires skill and excellence that involves being a certain kind of person.7

Excellence is the result of superior attainment in meeting distinctive goals. "It may be experienced at every level and in every serious kind of higher education," said John Gardner in his superb little book on this topic.8 Excellence is not possessed solely by any single college or set of institutions, but may be found wherever people and institutions strive for the highest standards in whatever they attempt.

One reason that this definition of excellence is not readily accepted is that critics seem to confuse "excellence" with "prestige." For a college or university, a national reputation, large endowment, and highly selective admissions practices are indicators of social ranking or status, not general measures of excellence. And while these concepts are often related, the one does not guarantee the other.

It has been a tenet of democratic thought that "all men are created equal." Then disagreement sets in. Some argue that there are and should be no differences between men; that all people should be treated and respected equally because no person is better than another in any dimension. Jacksonian democracy and the deliberations of student radicals shared this view. Others, who agree with the fundamental tenet, have a different conception of equality. They believe that all people are equal before the law in

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8Ibid., p. 85.
their possession of certain legal, civil, and political rights; that everyone is equally important as a person, and that equality of treatment and consideration should be granted to everyone regardless of station; that equality of opportunity to change one’s condition should be the norm. However, this view also recognizes that equality of opportunity is affected by one’s circumstances, and that perfect equality of circumstances cannot be guaranteed. People are not equal in talents and motivation; consequently, they are not equal in achievement. We cannot guarantee equality of results. As long as some problems require trained minds for their solution, and as long as some people have the aptitude and motivation to learn complicated procedures, we will always have differing results from differing efforts. This does not mean that some people have greater intrinsic worth than others, but that equality of achievement cannot be guaranteed. We can promise equality of opportunity—e.g., access to additional schooling—but we cannot promise that everyone who tries will earn a degree in Physics or Accounting, unless we are willing to reduce the standards for them to the lowest common denominator.

DEFINING OPENED ADMISSIONS

These positions do not exhaust the arguments pro and con; they are only representative. They help illustrate that part of the problem with the debate about “open admissions,” a part not often faced either by advocates or opponents, is the definition of terms. For example, equal opportunity for what education? Do all spokesmen mean the same thing when they talk about it? Probably not. Proponents usually include a wide range of learning activities, traditional academic studies as well as career programs, offered by universities, four-year colleges, community colleges, and proprietary schools owned by private businesses. Opponents usually seem to be trying to preserve the sanctity of traditional colleges and universities from the masses of students, who, in previous years and under other philosophies, would not even have considered post-secondary education.

A more general problem of definition concerns the term “open admissions.” It implies a dichotomy: open admissions and closed admissions. If admissions is now “open,” it must have been closed

at one time. The term conveys no feeling of a continuum on which we can calibrate the degree of openness. For this reason, I prefer to say "opened," "opening," or "expanded" admissions.

For this discussion, the term opened admissions represents the philosophy that anyone may find access to additional schooling beyond the secondary level. "Open admissions," the popular term used to convey this thought, is an administrative label used to identify the attempts made to eliminate the effects of traditional barriers to post-secondary learning opportunities, so that every person may pursue the education or training for which he or she is prepared. Note the words, "attempts made to eliminate": Increasing admissions opportunities is an organic process, not the result of a mechanical thrust or fiat, although certain stages in the process may be forced by student and community activism, as at the City University of New York. Second, the term used is "post-secondary learning," not "higher" education, because bachelor's degree programs are not the only opportunities either available or important. Career programs in health care, food processing, and auto mechanics are also important. Third, the emphasis is on may progress, not will progress. The opening of admissions should expand the number of options available to people, not simply extend the length of the lockstep of earlier school years. Universal access should not mean universal attendance. The goal is to provide freedom of choice for all students. Traditional students should be as free to delay college as new students are to begin. Fourth, the definition includes both traditional education and career training, a further emphasis on the second point. A Bachelor of Arts is neither the only symbol of excellence, nor the best form of education for every student to pursue, given the ranges of people's interests and society's needs. And entrepreneurs, idealists, and the career-oriented are all motivated to satisfy needs. Last, note the expression, "for which he or she is prepared." This is not meant to be a covert form of exclusion. People should find it possible to progress from course to course and program to program according to their interests and

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**One of the reasons some people may object to this definition is that any "no" is taken as a final roadblock, another barrier, not a temporary and necessary diversion. Until they believe that the door will be opened after they have completed the prerequisites, they will pound on the door they want open, and promises will not be heard.
competence in the prerequisite stage. The student who is deficient in mathematics but wants to study engineering or accounting should be counseled into the appropriate preparatory course, not simply admitted, or denied admission, or told to find another field of study. Meritocratic admissions standards ignore students' needs and honor the institution's notion of "standards." Opened admissions should help students satisfy their desires to learn.

THE BARRIERS TO ADMISSION

Richard Ferrin, in *Barriers to Universal Higher Education*, surveyed twenty years of literature on barriers to college attendance and formulated four categories into which most barriers seem to fall: academic, financial, geographic, and motivational. While Ferrin's four-part model of barriers provides a convenient display for their study, I found that the list of barriers was incomplete and that the categories needed refinement. It is not enough to label a cell or bin "academic" and fill it with some academically-related barriers based on post-secondary institutions and others based outside this set of forces. Therefore, I multiplied the four categories by two dimensions, one to include the four categories of barriers and aspects of them that are related more to institutions than to students, e.g. curricular offerings; and the others to include aspects of the four categories of barriers that are related more to individuals than to institutions, e.g. curricular interests. There is some overlap between the two dimensions, of course, just as there is some between the four categories. The eight cells are shown in Figure 1.

Academic barriers, especially the effects of socio-economic status and test scores on the sorting of students, and the tracking of students in secondary schools, have been studied extensively. Financial barriers have also received a great deal of attention, although individual barriers such as foregone income have not been studied as much as the effects of tuition charges. Geographic barriers have received some attention, especially from Anderson *et al*, Ferrin, and Willingham, who have done studies on the location of colleges and the proximity of open access institutions to large segments of the

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13See especially the numerous reports by William H. Sewell and Alexander Astin.
FIGURE 1
BARRIERS TO POST-SECONDARY SCHOOLING

Institution-based Barriers

**ACADEMIC**
- Overly restrictive admission and graduation requirements in secondary schools;
- post-secondary school admission requirements; entrance examinations; limited post-secondary curricula; general education requirements; course prerequisites; bureaucratic procedures that limit accessibility; no developmental program or transitional time for adjustment; restricted range of times and variety of course offerings; the size, quality, and teaching style of the faculty; little opportunity for students to progress at their own pace.

**FINANCIAL**
- Tuition, fees, room, board, and other charges; differential tuition for out-of-state students; limited financial aid or other subsidy.

**GEOGRAPHIC**
- Distance in miles and minutes to campus; transportation sources limited.

**MOTIVATION**
- Lack of encouragement from teachers and guidance counselors; limited information and guidance provided; bureaucratic barriers such as limited part-time student opportunities available; applications due very early; attitudes toward "previously-rated" morality; restrictions based on age, sex, race, religion; attitudes toward residency and transfer of credit.

Individual-based Barriers

**ACADEMIC**
- Early decisions on placement or "track" in high school; high school achievement; curricular interests; non-standard preparation; "marginal" or low aptitude scores; perceptions about "college"; language barriers.

**FINANCIAL**
- Foregone income; reduced contribution to family; limited contribution from family; limited opportunity for summer earnings or year-round job; fear of excessive debt.

**GEOGRAPHIC**
- Psychological distance; different culture; afraid to leave old patterns and friends.

**MOTIVATION**
- Lack of encouragement from peers and parents; lack of confidence, low self-concept; no feeling of "payoff" or worthwhileness of further schooling; need for day care or special physical facilities; crowded campus; perceived campus or environmental "press"; desire by upper middle class students not to be downwardly mobile; feelings by lower middle class students that upward mobility is not a realistic aspiration.

population. However, the problems of psychological distance from the collegiate culture have not been studied as thoroughly. Nor have the barriers to physically handicapped students received much attention. The need for financial aid support by part-time students has also been generally ignored.

Educators have written at length about the influence of parental and school encouragement on student achievement and aspirations. However, they have neglected the need for day-care centers, the special needs of older, returning students, and the requirements of those who are the victims of previously-rated morality, such as those who have been in jail, or who have pursued a curriculum that is not preparatory to college study.

TRENDS AND PRESSURES IN ADMISSIONS

To understand more fully the progress in overcoming these barriers, we need first to examine several trends in admissions. The movement from aristocratic to meritocratic to egalitarian admissions philosophies has been explained well by Patricia Cross.\(^\text{15}\) Another historical comparison, however, has not been made. Some commentators say that "opened admissions" is no different from the Land Grant philosophy which provided in the late 19th century low cost institutions for the children of the industrial classes. Lowering the tuition costs of higher education was an important first step, but it did not diminish the effects of other barriers. Land Grant colleges admitted nearly all applicants until the 1950's when many of these schools found that they had to use admissions criteria in order to admit only those for whom they had room. State colleges, which for years had been admitting every high school graduate applicant, suddenly began turning people away. They had failed to correlate the increase in high school graduates with the need for more college spaces.

There are five major differences between present egalitarian trends and Land Grant college practices. First, placement in appropriate courses, not just access to higher education, is of major concern. Many colleges tell prospective students about the programs available and try to help find suitable matches between interests and opportunities. Second, the revolving doors of the Land Grant colleges are being held open by tutoring, counseling, and transitional courses. Students are being helped in their attempts to cope with institutions; they are not just given access one term and flunked out the next. There is a concern for the proper evaluation of strengths and deficiencies, and the beginnings of a strong emphasis on the value that the educational experience adds to one's life. Third,

\(^{15}\text{Cross, op. cit., p. 1.}\)
admission is not limited to a "college-age" population of recent secondary school graduates. Fourth, Land Grant colleges were built in rural areas away from population centers, and charges for room and board, in many cases, offset the advantages of low tuition. Now, there is concern for the accessibility of campuses, and financial aid according to the need for it. Finally, open-door community colleges provide access, especially for part-time students, in a way that was never available before, even with the early Land Grant movement.

Sir Eric Ashby has identified three major forces acting on higher education. These forces are consumer demand, i.e., the amount and kind of education the public wants; manpower needs, i.e., the needs of society for highly trained people and the jobs that influence students' choice of studies; and patrons' influences, i.e., the consequences of donors' or legislators' decisions to finance or not to fund various aspects of the educational system. During the years immediately after Sputnik, these forces spurred on the dramatic increase in attention paid to secondary and higher learning. These forces and the Civil Rights movement combined to encourage minorities and their advocates to seek the college places necessary for jobs and upward mobility. Education was viewed not only as a matter of consumption, but also as an investment, both for the individual and for society.

The Higher Education Act of 1965 expanded access further with loans and grants, but the assassination in 1968 of the Reverend Martin Luther King is more frequently cited as the public event that shook the consciousness of the land and inspired many predominantly white colleges aggressively to increase their recruiting of Black and other minority students.

Recruiting the "new" (minority, low-income, disabled, etc.) students to higher learning was difficult; it involved a substantial change in admissions strategy, and admitting them raised new issues and controversies about admissions criteria and the qualifications for college-level study. Aptitude test scores and high school achievement levels, both highly correlated with family socio-economic status, were lower for many of the new recruits than the norms established by previous competitors for college spaces. To ease the transition between secondary school and college, and to help insure the success of the students admitted, numerous special summer and

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year-long "bridge" programs were established in both high schools and colleges. These new pressures and the changes in both population statistics and public accountability helped heighten the degree of specialization in admissions offices. While all admissions offices are concerned with enrollment, public relations, and admissions policy, these are not the primary activities that define the tone of an office. These major jobs are recruiting, selecting, counseling, and the management of student records and data. All campuses are concerned with these core tasks, but most admissions offices choose only one or two as a dominant activity. The choice depends upon the type of institution and its stage of development. Private colleges and universities tend to spend more time recruiting than public institutions do, and public institutions are more often than private ones engaged in the sophisticated management of student records and data. Only a few large private universities would claim this as a primary responsibility.

Student recruiting is a major activity primarily for the small private liberal arts colleges that have traditionally been faced with competition from the more prestigious private and the lower cost public institutions. Recruiting involves visits to secondary schools and alumni groups, placing advertising in newspapers and magazines, contracting for posters, catalogues and brochures, developing market plans for finding students who are likely to have the profile of currently enrolled successful undergraduates, and the sundry other activities that are involved in identifying a pool of students and trying to sell them on the virtues and opportunities of one's home institution. Public emphasis on expanding admissions opportunities has resulted in more attention being given to recruiting by all colleges.

Some colleges have sufficient numbers of applicants but want to be sure that they select from that group the most able students. Although selection procedures vary by institution, typically, selection is done by the director of admissions, or possibly the director and his staff. However, as schools ascend the status ladder, there is a strong likelihood that the faculty will be involved in selection. At one level, faculty serve on a screening committee that reviews the difficult cases of children of alumni and friends. At another level, the faculty is involved in reading and voting on all candidates, not just the problem cases. As demands for expanded access increase,
faculty and staff devote more attention to the establishment of new criteria for selection.

Still other institutions spend most of their admissions time counseling students about placement and curricular opportunities. These activities are shared as a primary task by both unsselective open-door community colleges and the most selective private colleges and universities. The former operate this way as a matter of public service; the latter because they have an abundance of highly qualified applicants and want students to make their college choices for educational reasons.

The fourth category of admissions office is concerned primarily with the management of student records and data. As mentioned previously, this activity is considered most important by large public and some private universities, and by the central offices of public systems of higher education. (The increasing use by private colleges of federal and state financial aid funds, and the concomitant reports required, result in all colleges being concerned with student data management.) Typically, in these cases, the director or dean of admissions is also the university registrar and is engaged in significant levels of institutional research, especially that involving enrollment projections, space and facilities usage, and the scheduling of rooms and examinations. The emphasis of these offices is on computer-generated reports for management planning and decision making, and as a means of accountability to public sponsors.

The different types of admissions offices are responses to the varied pressures on institutions during these days of dynamic change. The case study will illustrate one office’s response.

The barriers to enrollment are formidable, but there has been progress in reducing them. It is clear, though, that they are objectionable to different groups for different reasons. Some are concerned about manpower requirements; they want to be sure that enough trained people are available for industry and government. Others are moved by their consciences to object to the gap between national ideals and reality for segments of the population. Finally, others are driven to protest the barriers by the desire for better jobs, higher income, and improved quality of life. In our culture, education provides the pass to those goals. Most attempts to overcome barriers try to attack several at once: motivation and geographic barriers overlap; overcoming the academic barriers but not the financial ones would help few.
Much of the attention given to these barriers has been on the national level, and the data sometimes lose their poignancy when there are no personalities attached. To overcome this obstacle, I will discuss the barriers to access and how they are being overcome by looking intensively at one case. Since so much attention has been given to the national attempts at overcoming barriers and to the City University of New York's Open Admissions Program, which is only one attempt at expanding access, it should be of interest to consider the case of another institution that is committed to the opening of admissions.

ROOSEVELT UNIVERSITY: A CASE STUDY

In arguing for the opening of admissions to higher education, John Holt refers to libraries, museums, and concert halls as appropriate analogues to the ideal college or university. The former make no judgments about admission, he says, and neither should the latter.17

At first glance, Roosevelt University is a fitting example for Holt's beguiling description. It is housed in the same ten-story building as the Auditorium Theatre, Chicago's distinguished 4,000 seat concert hall designed by Adler and Sullivan, which opened in 1889. Located at the corner of Michigan Avenue and Congress Parkway, the Theatre is a central turret on the eastern border of the city, and looks out over Grant Park to the Chicago harbor and Lake Michigan.

Even if Holt's analogy is strained, Roosevelt is a striking case to consider. Unlike most catalogue and founding statement rhetoric that pays homage to abstract verities, Roosevelt's "manifesto" is simple, direct, and active. It promises excellence, academic freedom, "educational opportunities to persons of both sexes and of various races on equal terms," faculty governance, concern for the city, and assurance that "from the standpoint of location, time, and cost, its educational facilities [will be] made as accessible as possible to all qualified students."18

Roosevelt's founding promises reveal the reasons for its birth. In

18Quotations are from the plaque outside the university building and the Foreword of the Bulletin.
1945, the president, dean of the faculties, and some sixty-eight faculty members of the Central YMCA College of Chicago resigned in a controversy with the governing board over academic freedom and discrimination. The group joined together in this spirit to found a new college. At first, the name Thomas Jefferson College was chosen, but the death of Franklin D. Roosevelt moved the founders to adopt his name.

Classes at Roosevelt College began in September, 1945, with more than 1,300 students in temporary quarters. Accreditation came quickly, in March, 1946, because Roosevelt was really the continuation of a predecessor institution; faculty, administrative staff, student body, and library had been moved virtually intact.

Enrollment swelled with World War II veterans funded by the G.I. Bill; new patrons joined the ranks of friends of the college (although its endowment never swelled as quickly as enrollment); and in 1947, it purchased and moved into the historic Auditorium Building. Within three years, Roosevelt had an enrollment of over 6,000 students. In 1954, the College became a university.

The radical fervor of those early days, thirty years ago, exists now in subdued form. The University is no longer seen as a “hotbed for commies,” but as a liberal place with flexible ideas; twenty-fifth anniversary plaques hang in the offices of the few “founding fathers” who have not moved on or retired, and the remaining Young Turks of those earlier times are now the Established Order.

Unlike many collegiate statements of philosophy, Roosevelt’s carries a vision that defined its role and by the hard work of dedicated people became its mission. In *The Distinctive College*, Burton Clark elaborates his theory of the stages through which a vision must move on its way to becoming a saga. Although his cases do not include Roosevelt, she is on her way to meeting the criteria. The early vision imbued the mission with such energy and clarity that its achievements have nearly become legend with a life of their own, somewhat separate from reality. This takes on special meaning at Roosevelt when one tries to distinguish between flexibility based on economic expediency and a desire for survival.

The distinction occurred to me because Roosevelt’s programs and

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19Much of the material in this section is based on “A Brief History of Roosevelt University,” mimeo, 12-14-72, Daniel Perlman, author.
structure seemed so much more than other colleges’ to be near the far end of the continuum called the opening of admissions, and Roosevelt was considering even more changes. I began to doubt its sincerity. Scores of panels on higher education had urged institutions to become more flexible and to market their programs, and hundreds of colleges had begun to change in response to “consumer desires” and the need for more students in order to balance budgets. But further investigation revealed that Roosevelt had not changed for these reasons, or at least not for these reasons alone. Its changes were structural and based on its philosophy; access was always being broadened, but not at the expense of its standards. While other colleges have been dropping their English departments and substituting programs in “communications,” for example, Roosevelt has maintained in a very good English department one of the most rigorous writing requirements in the country.

The results of this cursory examination into the basis for flexibility convinced me that Roosevelt would be a good case to explore for the purposes of this study.

THE SETTING

The main entrance to Roosevelt reminds the visitor of Grand Central Station in New York. Although the lobby is not as large as Grand Central, its style is of the same period. The ceiling is high and the fixtures massive. Two elevators give to their riders temporary relief from the sounds of traffic and trains.

The lobby has a newsstand, information counter, announcements board, and colorful brochures housed in racks of modern design. The Summer School sign proclaims air conditioned rooms as one of its features.

The announcements board and the elevators underscore the fact that Roosevelt University comprises one building. This unique feature and the school’s location offer both important conveniences and interesting problems. Alyce E. Pasca, one of the founding faculty and Director of the Counseling and Testing Service, describes the former hotel building with its World War II surplus furniture as a symbol of upward mobility, and a conduit for rumors. The corridors create an excellent “word of mouth” circuit, she says. Students and faculty compliment the sturdiness of the thick walls in the original parts of the building—and contrast them to the walls
in modern high schools—but deride the construction and colors in its newer parts.\textsuperscript{21}

The location of the building is excellent; it is convenient to all major transportation routes. However, this convenience carries a problem with it. The boulevards and railroad tracks that bring students to Roosevelt also go by it, and the sounds of traffic, parades, and the elevated train all hinder concentration.

These are the features of an urban institution, by which I mean not only that it is located in a city, but also that it serves both city dwellers and commuters. Through flexible class scheduling and special degree programs, Roosevelt fulfills its mission of teaching those who will teach and otherwise work in the city. It is also a major cultural center for music and theatre.

Our definition of urban institution also leads to the offering of classes at the other end of the commuter line, in the suburbs. But most of the students are downtown, and they are 15 per cent foreign, 26 per cent Black, and often part-time in status. Many of them study after work; at 6:00 p.m. the elevators and halls are jammed with students eager for the credits that lead to new jobs, promotions, and raises.\textsuperscript{22}

\section*{The Organization}

In 1975, Roosevelt offered approximately fifty fields of concentration through the departments and programs of the five undergraduate divisions. The seven instructional colleges or divisions are: College of Arts and Sciences, Walter E. Heller College of Business Administration, College of Continuing Education, Chicago Musical College, College of Education, Graduate Division, and the Labor Education Division, which offers special courses for union officers and members. The nearly 350 faculty members, more than half of whom are full-time, teach approximately 7,000 full and part-time students.

There is a symbiotic relationship between a curriculum and its students. At Roosevelt, as in nature, this relationship is one of give and take; the direction of one is determined in large part by the movement of the other, and \textit{vice versa}. For an urban institution, this means that the courses, the faculty, the schedule, the services, and the problems of administration are influenced by its particular

\textsuperscript{21}Interview with Mrs. Alyce E. Pasca, May 18, 1973. Mrs. Pasca is now deceased.
\textsuperscript{22}Interview with Dr. Lawrence Silverman, Dean of Students, May 18, 1973.
studentry, which is attracted by the possibilities of the school’s academic environment and philosophy. The dynamics at Roosevelt have resulted in a shift away from traditional programs and full-time students to continuing education, general studies, graduate training, and part-time students. The “new students” to higher education may be found at Roosevelt.

The trend away from the College of Arts and Sciences is severe, and more so than the decline in total applications. From 1964 to 1973, total fall term applications to Arts and Sciences fell from 2,259 to 924, or 53 per cent, while total applications to the University dropped 12 per cent. Fall enrollment of new students in Arts and Sciences fell 53 per cent, while total enrollment of new students fell 21 per cent.

Two questions emerge from this simple analysis. First, has enrollment in Arts and Sciences courses dropped as severely as enrollment in the College? Second, can one expect enrollment in Continuing Education and Graduate Study, two areas of dramatic growth, to grow sufficiently to compensate for the decline in Arts and Sciences?

The answer to the first question is, “No.” Since many of the courses taken by General Studies students are liberal arts courses, enrollment in them has not fallen as precipitously as enrollment in the College as a whole. However, “enrollment” can be a misleading statistic, because unless definitions are made clear, one might compare a total of full-time students with a total of part-time students. And this leads us to the answer to the second question. Even with an increase in enrollment of 400 per cent since 1966, and projections for continued increases, Continuing Education alone cannot be seen as offering the possibility of compensating on a one-to-one basis for the decline in Arts and Science enrollment. For one thing, Continuing Education students earn fewer total credits at Roosevelt because they enter with advanced standing earned elsewhere. In recent years, almost one-half of the credits applied toward graduation requirements had been earned elsewhere. Only 30 credits toward a degree must be earned at Roosevelt. Second, most Continuing Education and graduate students are enrolled part-time.

Over a three year period, total head-count enrollment has just

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23“President’s Annual Report, 1974,” p. 6.
25Interview with Mrs. Lily Rose, Director of Admissions, May 19, 1973.
about stabilized. The full time equivalent is about 4,200 students. However, the number of credit hours taken by students has declined as the number of part-time students has increased.

The most rapid expansion of enrollments has been in Continuing Education and graduate students. From Fall 1968 to Fall 1973, total enrollment in Continuing Education grew from 320 to 1,096 students. Graduate enrollment increased from about 25 per cent of the total in 1971-1972 to 32 per cent in 1974.

Continuing Education and graduate students together offer significant opportunities for maintaining total enrollment, but with students whose age, attitudes, and ambitions are different: they are generally older, more mature, and oriented toward careers other than teaching. These changes are already taking place. Ten years ago, Roosevelt attracted largely middle and upper-middle class Jewish students from the North Suburban and South-shore areas of Chicago. Middle-class Black students made up 10 to 15 per cent of the student body. Few other minorities or Catholics were enrolled. Little financial aid was available, and the students were typically collegiate in age. By 1973, shifts in Roosevelt's population could be discerned. Fewer middle-class students were enrolling because financial aid need calculations tended to divert middle-income family students to lower tuition state-supported institutions. However, the advent of need-based financial aid led to an increase of lower-income students, which resulted in a rise in enrollment of local Black and Roman Catholic European ethnic group students. North Suburban students were replaced by those from the western suburbs and parochial schools. At the same time, the number of part-time students increased and the average age of students rose to 25. This last change is probably the result of Roosevelt's liberal policies on the transfer and earning of non-traditional credit, and its attraction to adult students who want a senior college atmosphere, not the "high school" atmosphere perceived by them to exist at many community colleges. One benefit of this is that the graduation rate at Roosevelt is 30 per cent higher than the national average.

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29Ibid., p. 6.
One of the reasons for the decline in freshman applications may have been the shift in population areas from which Roosevelt has traditionally recruited high school graduates. The number of applicants from the middle and upper-middle income North Suburban communities has declined, while the number from the less affluent western suburbs has increased. At the same time, the number of students from parochial and private schools, and out-of-Chicago area schools, has increased. The number from Chicago proper has stayed about the same, even though both the number and percentage of 16 to 19 year olds enrolled in Chicago schools has increased over the last decade. These data suggest that the primary reason for the enrollment decline is not population shift, but some other cause. The competition from low-cost community colleges, which multiplied in number during the 1960’s, is probably it. Many of the students who might have attended Roosevelt as freshmen in the past now enter as transfers.

These changes in students enrolled have resulted in changes other than in the selection of courses of study. For example, fewer students are going on to traditional fields of graduate study. (However, almost 45 per cent go on to professional programs.) This means that in the current “buyers market” for instructors, when Roosevelt is trying to hire the “best” faculty, and these are usually those with the most scholarly orientations, it is enrolling fewer students who want to pursue careers in the image of their teachers. It is too early to tell what major dysfunctions will result from this, but already a few problems can be identified. The tensions that result from a change in power are reported to exist in the relations between the “old guard” faculty of Arts and Sciences and those in other divisions who emphasize new fields, new styles, and testing for competence rather than classroom teaching. However, this is not a major problem, and Roosevelt’s tradition of flexibility and adaptability, and its unique faculty governance structure suggest to this writer that the tensions will not soon be compounded into something more serious. In the first place, the faculty at large is the faculty of Continuing Education (only a few appointments are specifically in it); and in the second place, the curriculum committee in Continuing Education is elected in large part by the

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Councils of the other Colleges. Only if there are changes in these areas is the tension likely to increase.33

There is reason to believe, though, that there will be changes in this arrangement. The College of Continuing Education is the “growing edge” of Roosevelt. It is the source of much recent innovation and of sorely needed enrollment growth. It pioneers new methods that other departments eventually adopt. As an interesting and rapidly growing part of the university, Continuing Education will be held up with pride to outside sources of support, and its needs for more faculty and space will be satisfied. The result will probably be more tension unless the traditional faculty recognizes that Continuing Education is performing an important function both for its students and for Roosevelt.

The College of Continuing Education relies heavily on both diagnostic and remedial work, and on placement and proficiency examinations which are used to accelerate students to junior year-level study. It tries to free students from the constraints of time and space by offering courses on and off campus, weekdays and weekends (including Sunday), daytime and evening, and by making use of examinations as explained above. The College enrolls about one-half of its students at night; about 40 per cent of its students are Black; and about 50 per cent of its graduates continue their studies at the master’s level.34

The more immediate problems at Roosevelt are administrative and structural rather than with the faculty. For example, if the staff of the University works from 9:00 a.m. to 5:00 p.m., who will serve the evening students and faculty? Who will advise and counsel these students about course selection and other academic matters? Who will provide faculty with the clerical support required for most courses? Compensatory time off during the day for those who will work evenings is not an adequate solution because the result is a reduced staff during the day. And during a time of economic cutbacks, the University cannot hire more staff. However, without more help in the evenings, the flexibility and attractiveness of evening courses are diminished.

Another problem with evening courses is their scheduling. Just

33 Interviews with Professor Otto Wirth, a “founding father” and former Dean of the College of Arts and Sciences, and James Hall, Acting Dean of the College of Continuing Education, May 18, 1973.
34 From a review of catalogs, reports, and an interview with Dr. Hall, May 17, 1973.
as schedule conflicts occur in the traditional college on Monday, Wednesday, and Friday mornings at 10:00, non-traditional students and evening courses jam up at 6:00 p.m. The halls are crowded and empty classrooms scarce as evening students try to fit in one or two courses after work and before it is too late to walk safely to the bus or train for the ride home.\(^\text{35}\)

The faculty at Roosevelt appears to be quite good, and comprised of many devoted teachers who can also do productive research. Professor Otto Wirth, one of the University's senior and most distinguished faculty, emphasized to me Roosevelt's desire to hire teachers who are "interested and concerned with students." "Can he generate the enthusiasm of his field to his students?" is the major question to be asked before hiring someone.\(^\text{36}\) Although it is not a research university, a large percentage of faculty have doctorates, a goodly number publish books and articles, and numerous grants are awarded to them for teaching and other innovations. However, the graduate schools and publishers of many of the faculty are located in Chicago, which makes one wonder whether the faculty is hired with PhD's in progress and if the publications are based on dissertation research. For example, in two large departments, Math and Sociology, every advanced degree had been awarded by a university in Illinois, with the University of Chicago and Northwestern leading the list.\(^\text{37}\) In Management and Personnel Administration, and Marketing and Advertising, areas of considerable growth in student interest, 13 of 19 advanced degrees are from Illinois institutions, and 10 of the 13 are from Chicago institutions.\(^\text{38}\) Also, in a recent listing by the President of twelve books by Roosevelt Faculty, eight were published by university presses in Illinois or by Xerox and University microfilms. The point of this analysis is not to denigrate the achievements of Roosevelt faculty, but to indicate that they are probably not the mobile cosmopolitans of their disciplines.

One measure of faculty's status is the number of doctorates held. By hand count of the faculty listed in the 1974-75 Bulletin, 157 of 266 Roosevelt faculty (60 per cent) hold a doctorate, including the J.D. and M.D. degrees. The national average for four year

\(^{35}\)Interviews with Dominic Martia, Assistant to the President, November 11, 1974, and Dr. Silverman, May 18, 1973.

\(^{36}\)Interview with Professor Otto Wirth, May 18, 1973.

\(^{37}\)Roosevelt University Bulletin 74-75, pp. 317, 318, 321, and 322.

\(^{38}\)Ibid., pp. 324, 325.
colleges is 41.7 per cent. Another measure is salary. According to the most recent report of faculty salaries compiled by the AAUP, Roosevelt's salaries are about average for its class of institution (IIA). Full professor and associate professor salaries are close to the 50th percentile level; assistant professor's are near the 60th percentile; and instructors' salaries are at the 30th percentile level.

In another area, Roosevelt faculty is almost without peer. Since its founding, the faculty of Roosevelt has been involved in the governance of the institution. Not only are faculty elected members of the Board of Trustees, but also they have a significant voice in other matters. They confirm, by a two-thirds vote, or deny appointments as Dean. Every three years, the deans and president must submit to a vote of confidence by the faculty. Each college has an active executive committee that includes elected faculty representatives. But, perhaps the most unusual body is the Budget Committee, half of whom are elected faculty representatives, which is responsible for the formulation of a balanced budget. This is one of the most powerful bodies in the University, and the president is only one of several *ex officio* administrative members.

Just as other colleges are "catching up" to Roosevelt in terms of its curricular flexibility and concern for human rights, so also are others catching up to it in terms of its faculty's power. But Roosevelt was there early, and now has tradition in its favor in this area, too!

ADMISSIONS OVERVIEW

The admissions office at Roosevelt is under the direction of Mrs. Lily Rose, a long time staff member who offers an unusual combination. She seems to be as imaginative as she is devoted. With her small staff and cramped quarters, Mrs. Rose interviews applicants and visits secondary schools, community colleges, area employers, and other sources of new students. A faculty advisory committee considers new ideas and changing admissions policies.

At Roosevelt, student recruiting and counseling for course placement receive the greatest emphasis and are coordinated. Mrs. Rose's philosophy is that, "In recruiting and admissions we must remember that we are counselors and educators and not merely salesmen.

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41 "A Brief History of Roosevelt University."
and businessmen.”42 The statement is not simple rhetoric, as efforts and results in Roosevelt admissions show. However, before reviewing these, a word should be said about Roosevelt’s selectivity.

Selectivity can be measured in several ways, the most common of which are the SAT-Verbal scores of entering students, the secondary school class ranks of entering students, and the percentage of applicants admitted. None of these indicators is perfect, and each is fraught with hazards. How, for example, can one find a meaningful SAT-Verbal or class rank statistic for a college like Roosevelt that admits few eighteen year old freshmen and many transfers and older students? The percentage of applicants admitted can also be misleading. The general decline in multiple applications has resulted in an increase in the percentage of students admitted by even the most selective schools. As better college guidance information has become available, students have been able to target their applications; preselection has taken place. Therefore, a college like Reed in Oregon with an exceptionally talented student body (top decile) admits more than 80 per cent of its self-selected applicants, while the School of Hotel Administration at Cornell University admits only one-fourth of the applicants from its less able and more diverse group. Consequently, we have to look at other data to determine Roosevelt’s selectivity. Nevertheless, the few data available are suggestive. According to Barron’s Profile of American Colleges, Ninth Edition, Roosevelt freshmen have an average SAT-Verbal of 525, SAT-Math of 575, and ACT Composite score of 22. The ACT score is confirmed by Cass and Birnbaum’s Comparative Guide to American Colleges. These scores place the Roosevelt freshmen who took the tests in the top third of all four-year freshmen. However, Cass and Birnbaum have not rated Roosevelt on their scale of selectivity, which means either that it is too complicated to rate or that it is considered by these authors to be unselective on their scale of Highly Selective, Very (+) Selective, Very Selective, and not rated.

In several ways, Roosevelt is a second choice, second chance institution, and therefore, not highly selective. For freshman applicants, the University competes with area public colleges and is a “safety school” for many local applicants to the private universities in the area. For transfer applicants, Roosevelt’s sources are the local

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community colleges and Chicago-area residents who went away to school, but who for personal or financial reasons want to change, or who for academic reasons must start over again. Most Roosevelt students are commuters. The 360 dormitory beds are 90 per cent full, but 50 per cent of them are being used by students at neighboring colleges.

Table I shows the sources of students over a five-year period. It is interesting to note the continued shift away from mostly freshmen to transfers, and the shift away from out-of-state four-year colleges as sources of students.

<table>
<thead>
<tr>
<th>TABLE I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last School Attended Prior to Application (Excluding Foreign Students)</td>
</tr>
<tr>
<td>( )</td>
</tr>
<tr>
<td>City Colleges of Chicago</td>
</tr>
<tr>
<td>Illinois High Schools</td>
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<tr>
<td>Out-of-Illinois High Schools and High School GED</td>
</tr>
<tr>
<td>All Other High Schools</td>
</tr>
<tr>
<td>University of Illinois-Chicago</td>
</tr>
<tr>
<td>Other Chicago Area four-year schools</td>
</tr>
<tr>
<td>University of Illinois-Urbana</td>
</tr>
<tr>
<td>Northern and Southern Illinois univ's.</td>
</tr>
<tr>
<td>Other Illinois four-year schools</td>
</tr>
<tr>
<td>Out-of-State four-year schools</td>
</tr>
<tr>
<td>USAFI, CLEP, &amp; College GED</td>
</tr>
</tbody>
</table>

In recent years, the University has admitted about 80 percent of its applicants. Of the remainder, 9.4 per cent failed the entrance examination, 3.2 per cent were rejected because of their previous academic performance, and 8.5 per cent of the applications have been incomplete. About 92 per cent of transfer applicants were admitted.

ADMISSIONS AND BARRIERS

The requirements for admission are simple, the deadlines generous. Applicants are advised that they may not be able to complete the admissions process if they file their papers after September 1 for a fall semester and after January 15 for a spring semester. These are liberal deadlines because classes begin in the middle of Septem-

43Interview with Mrs. Rose, December 13, 1972.
44Interview with Dr. Silverman, May 18, 1973.
46Ibid., p. 13.
ber and close to the first of February. Many colleges have deadlines of six to eight months before classes begin.

In addition to fifteen units of accredited secondary school work or passing General Education Development (GED) scores, freshman applicants also must submit either results of the Roosevelt University entrance examination or the results of one of the national college admission tests, the SAT or the ACT. Transfer applicants are admitted on the basis of their college work.48

The Revised Army Beta test, a non-language intelligence test, has been used with selected groups of applicants as a means for finding a more accurate reflection of ability than the national admission tests provide. Results have shown that foreign students who score near the bottom on the ACT have scored IQ results of 120, which is above average. This test is now being used with native populations who have had inadequate preparation in standard English. For transfers, the Cooperative School and College Ability Tests (SCAT) and Cooperative Reading Comprehension tests are frequently used.49 This flexibility in testing is significant because it shows that Roosevelt is trying to diagnose the strengths and inadequacies of applicants, not just screen them out with a single composite score that hides variations in abilities. The SCAT is also used with some freshman applicants, most notably the early admissions students.

Applicants are notified of the admissions decision within seventy-two hours after the receipt of these records. The irony of this swift action is that some students learn that they have been admitted before they have even submitted their applications.50

Swift action and flexible class scheduling are not Roosevelt's only claims. Programs such as early admission after the junior year in high school, BOOST, Prime, General Studies, and others offer both flexibility and assistance to students. Brief descriptions of these programs follow.

1. Early Admission—permits students who have completed the junior year of secondary school to enter college early.
2. Correspondence Study—offers students the opportunity to study college-level courses without being in residence. This option may become a university without walls-type program.

48Roosevelt University Bulletin 74-75, pp. 11, 12.
50Ibid.
3. The BOOST Program is co-sponsored by Roosevelt and area companies to attract and prepare for business careers minority students who would probably not otherwise attend.

4. The Adult Program Bachelor of General Studies is for students over age 25 and requires blocks of study rather than an accumulation of credits. For students with less than two years of college already completed, the requirements include (a) a six-semester-hour "pro-seminar" course which provides a review of basic skills, a diagnosis of future needs for course work, and the possibility of credit by examinations; (b) an area of concentration (about sixteen courses); (c) one six-semester-hour Senior Seminar in each of the three major groupings of knowledge: Man and His Social Environment, Man and His Physical Environment, and Man and His Cultural Environment; and (d) a three-semester-hour Internship in Community Service which involves both practical work in the community and reflecting upon that involvement with the help of the faculty member. An Alternate Program that requires at least thirty semester hours of upper level courses, including the Internship, exists for students who have already earned at least eighty credit hours.

5. Discovery is essentially a non-credit program of up to one year of testing and tutorial study that makes it possible for someone without a bachelor's degree to enter a master's degree program.

6. Basic Writing Practice is a diagnostic and clinical program for elementary training in writing.

7. The Study Improvement Program is offered by the Counseling and Testing Service to help students improve study methods.

8. The Reading Improvement Program offers special training in reading skills through a regular course.

9. The Reading Institute offers diagnostic testing and remedial tutoring in both reading and writing on an individual basis.

10. Reduced Tuition for senior citizens.

11. Upward Bound is a remedial program for students from the City of Chicago school system.

12. Sunday Classes were first opened in spring of 1974. Fourteen classes enrolled 246 students, almost one-third of them new students.51

13. An interest in *new programs* such as Human Services, Urban Environmental Management, actuarial sciences, and a lawyer’s assistant program. 

14. Plans are underway for a *satellite suburban learning center*, the *development of certificate programs and short courses* in areas of applied knowledge, an *external degree program*, and a *Master of General Studies program*.

These programs and plans have gone far to reduce the barriers to admission.

The Office of Admissions informs and counsels prospective students in a variety of ways. Of course it visits high schools (about 16 man-weeks per year throughout Illinois, Ohio, St. Louis, Indiana, and Nebraska) and community colleges, but it also uses other techniques to contact its potential population. Admission counselors, faculty, and deans visit area businesses, women’s groups, and cultural enrichment programs to tell them about the programs and opportunities at Roosevelt. In addition to personal visits, extensive use is also made of direct mail, newspaper advertising, posters, and free telephone service. Letters about admissions and financial aid possibilities are sent to residents of area high-rise apartments, recently discharged veterans, community groups, and those who in the past have requested information about Roosevelt but have not yet applied. Currently enrolled students are asked to name three others not already enrolled who are then sent letters from the president. Informal open houses are held for area community college students. Students are asked to bring a friend to campus. Advertising in suburban newspapers seems especially effective in recruiting students for the Bachelor of General Studies and M.B.A. programs available at the Glenview military base. Daycare is made available during the day at the base nursery.

During the past fifteen years, Roosevelt has worked closely with area military and naval bases at Fort Sheridan, Great Lakes, and Waukegan. Servicemen and neighboring civilians alike take courses offered in base facilities. The most popular programs are the undergraduate degree in business and the master’s programs in education and business.

“Phone power” is a relatively new service that offers admissions counseling over the telephone at designated hours. This and the

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52 Ibid., p. 13.
53 Ibid., p. 17.
other recruiting-counseling functions are carried out by a small staff on a limited budget. But the effects are impressive when one considers the service to area residents and the successful continuation of Roosevelt's ideals.

The financial barrier to further schooling is a serious one, not only in terms of direct costs, but also in terms of indirect costs such as foregone income. Roosevelt has been able to combine its own resources with state and federal funds to provide aid for a substantial number of her students, both full-time and part-time, regular term and summer, freshman and transfer. Almost all students who need aid receive it in some form, primarily because most students are from Illinois, a state which provides generous support to students at private colleges.⁵⁴

In addition to local, state, and federal grants and loans, which in 1973-74 provided $3,413,352 in 3,419 awards,⁵⁵ there are work-study arrangements with local industry, discounts for senior citizens, and a state program that provides $100 for each freshman and sophomore and $200 for each junior or senior state resident enrolled in private colleges and universities in Illinois.⁵⁶

It is significant that Roosevelt provides aid to part-time students. More than one-third of all colleges and universities do not,⁵⁷ and government grants are available only to full-time students. Roosevelt's commitment is substantial and rare.

Roosevelt's location near the center of a major city, with transportation nearby, and its branches in the outlying areas, make it accessible geographically as well as academically. In addition, its counseling services, curriculum, and special programs make it possible for Roosevelt to overcome the motivational barriers felt by many students. Roosevelt provides encouragement, assistance, and lots of information. Its bureaucratic barriers are few. It is known as a flexible, liberal place.⁵⁸

MEASURING THE DEGREE OF OPENNESS

Roosevelt is an interesting mixture of accessibility and high standards. It admits nearly all of its applicants and is not rated as

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⁵⁴Interview with Robert Franklin, Director of Financial Aid, December 14, 1972.
selective, yet it has rigorous course requirements and a high rate of success by its transfer and General Studies students. More than 70 per cent of freshmen return for the sophomore year.59

Roosevelt University is in some ways the senior institution for Chicago’s community colleges. C. C. students and the other, older students have created a bimodel grouping, with freshmen direct from high school becoming a minority that shrinks in size each year. Attention must be paid to the pressures that are likely to result from this shift.

The barriers to post-secondary schooling exist in several forms: some are based in institutions, others are based in individuals. They are academic, financial, geographic, and motivational in nature. Roosevelt University is an interesting case of how a private institution can fight to diminish the effects of these barriers while it also strives to maintain its standards, and do both in the name of its founders.

CONCLUSION

The foregoing has outlined and analyzed the organization and structure of college admissions, trends in the opening of admissions, and definitions that pertain to this new stage. In conclusion, a few words should be said about the implications of these changes for policies and procedures in higher education, especially as they affect institutions such as Roosevelt.

One can see how the demands of special programs and new students in this egalitarian era have affected the four core jobs of admissions. At private and public colleges alike, recruiting has intensified due to the pressure to enroll new groups of students. Counseling for course placement has become more important as fewer students are interested in traditional fields. And special attention to the selecting of students is needed as meritocratic criteria are challenged and, at times, set aside. In both public and private colleges, demands for accountability in the spending of federal and state financial aid funds has led to increased data management and reporting.

The barriers to post-secondary schooling are falling, although not all at the same time and not all at once in the same institution. However, this case study shows, I think, that even a single, private

college can do its part to effect dramatic social change in the opening of admissions.

This case has also shown that policies can be fair and procedures both humane and efficient, while at the same time they can accomplish the goals for which they were established. It is possible to have both open access and high standards, especially by providing the opportunity for access in steps according to individual achievement. That is, the key for the opening of admissions is the guarantee of mobility, not the promise of placement into a program that is beyond the reach of one's training and grasp. Equality and excellence are not mutually exclusive. There can be, and is, excellence in programs that admit anyone who wants to enter.
Administrative Skills of Effective and Ineffective University Leaders

CHARLES E. SKIPPER

Administrative Skills are one of eight dimensions of leadership that have been studied in the research literature of Education during the last quarter century. They take their place along with Social and Interpersonal Skills, Technical Skills, Intellectual Skills, Leadership Effectiveness and Achievement, Social Nearness and Friendliness, Group Task Supportiveness, and Task Motivation and Application as one of the most frequently appearing leadership skills in the literature from 1945 to 1974 as summarized by Stogdill. (1) In this study, administrative skills are defined, rated and compared by contrasting their magnitude between an effective and an ineffective group of university leaders.

Leadership in this study was defined by Hempill and Coons(2) and Halpin(3) who developed the constructs "Initiating Structure" and "Consideration" to describe leader behavior. Halpin defined the terms as follows: "Initiating Structure" refers to the leader's behavior in delineating the relationship between himself and the members of his group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and ways of getting the job done. 'Consideration' refers to behavior indicative of friendship, mutual trust, respect, and warmth in the relationship between the leader and members of the group."

This study attempted to differentiate the administrative skills of effective and ineffective university leaders at the Dean level and above, as judged and rated by their administrative colleagues. "Most Effective" administrators were defined as persons who developed well-defined patterns of organization, who opened channels of communication, who articulated goals, kept morale high, and whose relationships with others were characterized by mutual respect and warmth. They would be high in Initiation Structure and Consideration. "Least Effective" administrators were defined as those persons who were the poorest in defining patterns of organization, who did not open channels of communication, who negatively influenced morale, and who were not trusted by their colleagues or subordinates. They would be low in Initiation Structure and Consideration.
Administrative skills were defined by identifying seven broad areas of administration. They are: planning ability, knowledge about position, organizational and management ability, leadership, judgment, human relations, and quality of performance. These seven dimensions of administrative skills were rated on a five point scale where a rating of one was “poor” and a rating of five was “superior.” The reliability of the scale, expressed as the alpha coefficient, based on twenty ratings is .95. Table I presents the seven items and the definitions for ratings of “poor” and “superior.”

### Table I

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poor Rating</th>
<th>Superior Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Planning Ability</td>
<td>Fails to see ahead</td>
<td>Capable of top level planning</td>
</tr>
<tr>
<td>2. Knowledge about Position</td>
<td>Lacks facts about position</td>
<td>Understands all facets of the position</td>
</tr>
<tr>
<td>3. Organization and Management</td>
<td>A poor organizer</td>
<td>Brings about maximum effectiveness</td>
</tr>
<tr>
<td>4. Leadership</td>
<td>A weak leader</td>
<td>Qualities for high level leadership</td>
</tr>
<tr>
<td>5. Judgment</td>
<td>Decisions are sometimes unsound</td>
<td>Makes correct decisions in complex situations</td>
</tr>
<tr>
<td>6. Human Relations</td>
<td>Does not get along well with others</td>
<td>Brings out the best in people</td>
</tr>
<tr>
<td>7. Quality of Performance</td>
<td>Does not always perform well</td>
<td>Work is always outstanding</td>
</tr>
</tbody>
</table>

Twenty university administrators who were American Council on Education Fellows in the Academic Administration Internship Program served as raters. Ten identified and rated their most effective administrative colleague while the other ten identified and rated their most ineffective administrative colleague.

The analysis of variance ratio was computed to determine if there were statistically significant differences in administrative skills between Most Effective and Least Effective administrators. Findings were judged significant at the .05 level. There are statistically significant differences in administrative skills between Most Effective and Least Effective Administrators ($F = 148.15$). Table II presents the results.
TABLE II

Analysis of Variance Results Comparing Administrative Skills of Most Effective and Least Effective Leaders

<table>
<thead>
<tr>
<th>Type of Administrator</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>148.15*</td>
</tr>
<tr>
<td>Most Effective</td>
<td>1</td>
<td>1377.00</td>
<td>1377.00</td>
<td></td>
</tr>
<tr>
<td>Least Effective</td>
<td>18</td>
<td>167.40</td>
<td>9.30</td>
<td></td>
</tr>
</tbody>
</table>

*Significant beyond .0001 level of significance

Most Effective administrators, as judged by their colleagues, tend to have a better understanding of the facts required of their position, are capable of anticipating problems by planning, are better organizers, and carefully weigh costs against expected results compared to Least Effective Administrators. Further, they were judged to be more inspirational, make more correct decisions, are more effective in dealing with others, and perform their duties at a superior level compared to the Least Effective administrators. By contrast, the Least Effective Leaders, as judged by their colleagues, often fail to see ahead, lack knowledge about their job, and are poor organizers. Further, they were described as weak leaders, who make unsound decisions, who are poor in getting along with others, and who produce poorer quality work compared to the Most Effective Administrators.

An earlier study of personal characteristics of effective and ineffective university leaders by the author(4), found effective leaders to be more ethical, calm, insightful, tolerant, confident, goal oriented, decisive, and inventive while the least effective administrators tend to be more undependable, impulsive, defensive, rigid, sarcastic, retiring, lacking in ambition, and more inclined to put off difficult decisions and have fewer ideas. To determine the relationship between personal characteristics and administrative skills correlation coefficients were computed for both groups. For the Most Effective administrators, personality correlates .795 with administrative skills and for the Least Effective group the correlation is .739. Both of these correlations are significant at the .005 level. These findings indicate a strong positive relationship between personal characteristics and administrative skills, but personal characteristics are not the only factors related to high level administrative skills. Such factors as knowledge about the position, plan-
ning ability, organization skills, judgment, and previous accomplishments are clearly associated with outstanding administrative skills.

If institutions of higher education are to adequately cope with such problems as inflation, reduced income, faculty and staff militancy, and student demands for more services, their leaders must be men and women with outstanding personal qualities, and demonstrated high level administrative skills. To insure high quality leadership, Boards of Trustees should institute systematic evaluation of administrators and hold them accountable for outstanding performance. Hopefully, this and other studies will form a basis for better understanding and evaluating the administrative skills of leaders in higher education.

REFERENCES

The Transferability of College Credit Earned During High School

FRANKLIN P. WILBUR and DAVID W. CHAPMAN

Previous research on credit transfer has focused primarily on student movement between two and four-year colleges or on students who participated in credit-by-examination programs.1, 2 This study investigated the policies and procedures of colleges regarding the transfer of college credit which students earn for work they completed while still enrolled in high school.

The variety of opportunities available to high school students to earn college credit has expanded rapidly (e.g., credit-by-examination programs, concurrent high school-college enrollment, college courses offered as part of the regular high school curriculum). The advantages of these opportunities to the students, their high schools, and to the colleges sponsoring these programs have recently received considerable attention in the educational literature. 3, 4, 5, 6, 7 For example, the Carnegie Commission has argued that these programs can enrich the high school curriculum, eliminate some unnecessary duplication of content between high school and college, reduce the time required to obtain a high school diploma and a baccalaureate degree, and reduce senior year boredom or "senior-itis." 8 Many of the potential advantages of these programs to the

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1Loretta M. Thomas, "Award of Transfer Credit: Policies and Practice," College and University, Fall, 1971.
8Carnegie Commission on Higher Education, op. cit.
student assume the willingness and ability of colleges to accept the college credit generated by these programs. Yet, very little information is available as to college practices in reviewing this credit, or their eventual willingness to take it.

Two reasons for the lack of information can be identified: few studies have been undertaken and the utility of several of those that have occurred are extremely limited by their design. First, while many colleges and universities across the country are presently involved in some form of high school cooperation, these programs have often emerged as local initiatives and served a primarily local clientele. Few local based programs have had the resources to undertake follow-up studies. Moreover, until recently, few programs made any claims that their credit was transferable beyond the sponsoring institution; transferability, then, was a peripheral concern.

Second, many of those studies that have investigated the transfer of credit from high school-college programs have been limited by weak or inappropriate research designs. For instance, several studies have posed hypothetical questions that lack a context (e.g., If a student who earned college credit during high school applied . . . ?) and yielded only the respondent's best guess. Likewise, questionnaires often went to institutional representatives who were not necessarily involved in credit transfer decisions. One alternative for continued study is to examine institutional responses to college credit in situations in which actual decisions are being made.

The present study investigated college policies and procedures regarding the transfer of college credit earned during high school through one particular program, Syracuse University Project Advance (SUPA). Specifically, five questions were addressed in this study:

1. How did post-secondary institutions recognize credit earned in SUPA (e.g., grant credit toward degree, allow exemption from required courses)?
2. What colleges have developed written policies for evaluating college transfer credit earned by their entering freshmen while enrolled in high school?
3. Does a student's choice of major or area of concentration affect transfer credit recognition?

4. When and by whom are students informed of decisions regarding recognition of their SUPA credit?

5. Is there a pattern among post-secondary institutions of similar type, kind, and size in the way they evaluate and reward SUPA credit?

The purpose of this study was to assess current transfer practices with regard to college credit earned in high school, information useful to institutions now developing policy in this area and to students considering college credit opportunities.

Project Advance is a program offering selected Syracuse University courses in participating high schools across New York and surrounding states. Each of the courses has undergone a process of systematic instructional development and has been piloted at the University by the cooperating academic departments and the Center for Instructional Development. Within the high schools, the courses are taught by qualified high school teachers under the supervision of University faculty. Students enrolled in these courses can receive high school as well as college credit. Project Advance was particularly suited for a case study because the courses were regular University courses and considerable evidence was available that college standards were indeed being maintained. Unlike many earlier programs, Project Advance was designed to serve a large number of students across a wide geographical area.

**METHODOLOGY**

During the fall of 1974, 223 college freshmen who had earned college credit through Project Advance Freshman English or Introductory Psychology courses during 1973-74 were contacted by mail and asked to complete a questionnaire assessing the credit transfer procedures of their college. At the same time, representatives of the 102 colleges to which PA transcripts had been sent were contacted by mail and asked to complete a questionnaire on the institutional policies and procedures pertaining to the credit transfer of these

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12Chapman, *op. cit.*
Project Advance students. In using mailed questionnaires, standard procedures for ensuring a high rate of return were followed.

Of the 223 students contacted, 145 returned completed questionnaires, a 65 per cent rate of return. Of the 102 institutions contacted, 12 indicated that students who had requested a transcript be sent never actually enrolled. Hence, 90 institutions remained in the study of which 79 (88 per cent) provided usable responses.

**RESULTS**

*Credit Transfer.* The college credit that students earned during high school through SUPA was generally recognized both for fulfilling requirements in a student’s academic program and as credit toward the associate or baccalaureate degrees (see Table I). There was general agreement between students and institutions as to the treatment of the credit. Moreover, institutions were almost unanimously consistent internally in their treatment of this college credit.

Table I.

<table>
<thead>
<tr>
<th>Cell Count</th>
<th>Institutional Action Related to the Academic Credit Earned by Students in Two SUPA Courses (Based Upon Institutional Responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
</tr>
<tr>
<td>ENGLISH *</td>
<td></td>
</tr>
<tr>
<td>a. Essay</td>
<td>20</td>
</tr>
<tr>
<td>28.6</td>
<td>1.4</td>
</tr>
<tr>
<td>b. Fiction</td>
<td>20</td>
</tr>
<tr>
<td>30.0</td>
<td>1.5</td>
</tr>
<tr>
<td>c. Poetry</td>
<td>19</td>
</tr>
<tr>
<td>29.2</td>
<td>1.5</td>
</tr>
<tr>
<td>d. Mini 1</td>
<td>17</td>
</tr>
<tr>
<td>38.6</td>
<td>1.5</td>
</tr>
<tr>
<td>e. Mini 2</td>
<td>9</td>
</tr>
<tr>
<td>27.3</td>
<td>2.3</td>
</tr>
<tr>
<td>f. Independent Study</td>
<td>13</td>
</tr>
<tr>
<td>23.3</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCHOLOGY</td>
<td>20</td>
</tr>
<tr>
<td>37.0</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Total Cases (matched) 118 7 220 9 17 371

*Project Advance Freshman English is a variable credit course in which students may earn up to six credit hours; grades are assigned separately to each of six units.*
In other words, an institution generally rewarded the credit of two or more students in the same way. This is somewhat surprising in light of the finding pertaining to written policy.

Written Policy. The majority of participating institutions indicated that they have not yet developed written policy relating to the transfer of college credit earned by high school students. Based on institutional returns, 59.5 per cent of the sample reported that they had no appropriate written policy. This was confirmed by student data (Table II). Although there were no important differences between public and private institutions with respect to written policy, it appears that universities, as compared with two-and four-year colleges, are most likely to have established written policy dealing with this type of credit.

Responsibility for Credit Transfer Decisions. Responses from institutional representatives indicated that the responsibility for credit transfer decisions is chiefly an administrative rather than academic function. This is, the registrars’ and admissions offices were charged with the responsibility in nearly 55 per cent of all cases, whereas the function was placed in the hands of the college dean and department chairmen in approximately 20 per cent and 10 per cent of the time respectively. However, when broken down according to public-private status, it was observed that in private colleges and universities there is considerably more involvement on the part of academic representatives, i.e., department chairmen, deans, and student advisors with much less authority resting with the admissions offices.

Overall statistics from student responses show that they were usually informed of the decision regarding their SUPA transfer
credit through administrative offices. Word reached students via the registrar’s office or the admissions office in 54 per cent of the cases.

**Effect of Major.** The majority of institutional and student returns indicated that a student’s choice of major or area of concentration would not affect the recognition of SUPA credit transfer (Table III). Specifically, 97.1 per cent of all students transferring SUPA credit said they were told that choice of major was not a factor. Institutional responses were somewhat more divided as only 68.8 per cent or 53 colleges and universities agreed that choice of major would not affect transfer credit recognition. Four-year colleges overwhelmingly (81.4 per cent) indicated that choice of major would have little effect on credit transfer decisions. Likewise, the majority of returns from private institutions (77.6 per cent) reported that the choice of major would not be a factor, regardless of the courses involved. Choice of major was more likely to be a factor at public institutions, particularly community colleges, and at large institutions, particularly universities.

**When Are Students Informed?** Returns from institutions indicate that students are usually notified of transfer credit decisions before campus registration but after official acceptance (Table IV). This is particularly the case among all types and sizes of public institutions. Private institutions, on the other hand, vary considerably among types and sizes regarding timing of student notification.

**DISCUSSION**

This study found that the majority of institutions do not have a written policy regarding the transfer of college credit which students earned for work they completed during high school. Still, when faced with an actual decision, most colleges accept this credit toward a student’s degree. Usually that decision is an administrative function. Unlike earlier research regarding students transferring from two-year to four-year institutions, a student’s choice of major is not a primary factor in credit transfer decisions. Student’s choice of major is not a primary factor in credit transfer decisions. Students are usually informed of the decision after acceptance but before registration at the institution.
### TABLE III
Effects of a Student's Major on the Transfer of SUPA Credit
(Reported as per cent of responses)

<table>
<thead>
<tr>
<th>Major Would Affect Transfer</th>
<th>Major Would Not Affect Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Student Report</td>
<td>2.9</td>
</tr>
<tr>
<td>Overall Institutional Report</td>
<td>31.2</td>
</tr>
<tr>
<td>Two-Year Colleges</td>
<td>18.6</td>
</tr>
<tr>
<td>Four-Year Colleges</td>
<td>49.5</td>
</tr>
<tr>
<td>Universities</td>
<td>45.8</td>
</tr>
</tbody>
</table>

### TABLE IV
When Students Are Informed of Credit Transfer Decisions
(Reported as per cent of responses)

<table>
<thead>
<tr>
<th>Before Acceptance</th>
<th>After Acceptance/Before Registration</th>
<th>After Acceptance and Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Student Responses</td>
<td>16.3</td>
<td>31.2</td>
</tr>
<tr>
<td>Overall Institution Responses</td>
<td>21.5</td>
<td>57.0</td>
</tr>
<tr>
<td>Public Institutions</td>
<td>12.6</td>
<td>83.3</td>
</tr>
<tr>
<td>Private Institutions</td>
<td>28.6</td>
<td>40.8</td>
</tr>
</tbody>
</table>

Earlier research suggests that college policies on credit and placement are vague, procedures are complex, and academic advisors are unsure. The present findings are consistent with those observations. Haag has observed that colleges grant exemption to less than 15 per cent of those entering freshmen who apply for it. Moreover, only half of this group is granted academic credit for college level experience. Still, college credit earned during high school and verified by a regular college transcript appears to be widely accepted.

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14 Haag, *op. cit.*
16 CEEB, *op. cit.*
by post-secondary institutions across the country. It appears that students are well-advised to take advantage of college-course opportunities during high school.

One other implication of this research can be suggested. Some research suggests that performance in doing college work completed during high school may provide an indicator of a student’s ability to do well in college.\textsuperscript{17,18} Institutions, then, may be losing information about applicants’ likely college success by waiting until after admission to consider the credit students have earned. This is an area that deserves further research.

\textsuperscript{17}David Chapman and Richard Holloway, \textit{College Courses during High School: A New Issue for College Admissions} (Syracuse University, Syracuse, New York, in preparation).

\textsuperscript{18}David Chapman, et al, \textit{op. cit.}
A Model for Internal Program Review

J. ROBERT RUSSO, DAVID G. BROWN, and JAMES G. ROTHWEILER

Introduction

FACED WITH THE annual event of budget cutting, administrators at all levels of higher education are pressured to respond. Administrative responses have included the formation of budget review committees, across the board reductions, depression followed by resignation, reorganization for more efficiency, frantic activity to secure additional federal money, and program reduction or termination. The termination of programs is the major concern of this paper. Before dealing with internal program review as one aid to decision making, a brief background of the present financial situation of higher education is in order.

In 1960, current operating expenditures of colleges and universities represented 1.1 per cent of the Gross National Product; by 1970 they had risen to 2.4 per cent (Mayhew, 1974). On a national level, higher education budgets once occupied a fairly modest part of State expenditures but have risen to highly visible elements in many State budgets. And this has occurred at a time when competition for other public expenditures such as welfare, health, and the environment is also growing stronger.

The present economic situation becomes a convenient scapegoat to the casual observer who may overlook what are several other important factors affecting the funding of higher education. The entrance of industry, the military, and numerous volunteer associations into the higher education market has produced competition for financial support from students, states, and the federal government. In 1970 it was estimated that government and military programs involved 21.7 million students, compared to the 7.3 enrolled in colleges and universities. At least another 10 million were enrolled in private trade and technical schools, correspondence programs, and programs of community agencies (Fund for the Improvement of Postsecondary Education, 1975). Magnifying the pressure caused by this competition and the integration of higher education into society are our lack of clearly stated goals and the increasing administrative control of higher education by manage-
ment science principles. One result of the more complete integration of higher education into society is, according to Alexander Heard (1973), continuing deterioration in the autonomy of individual institutions. The rise in popularity of statewide governing boards is a specific indication of such a trend.

Role of State Governing Boards

Universities have recently begun to seriously apply the principles of management science to their own operations. Most of these principles and practices originated in academe and have now come home to haunt us—haunt us because they all require some form of output or product measures. Governing boards dominated by members who have become famous, or at least visible, through the channels of business, finance, or law are generally pleased with the management science trend. The boards who oversee higher education are responsible to some form of public—church, state legislature, or taxpayers—and, in their effort to do a good job, seem to count numbers in harmony with the debit/credit emphasis of the day. The practice of overseeing is beginning to include the managing and controlling of the system.

Why shouldn’t the management and control be left to the board? One answer is that the quantitative output (numbers) of education is not the primary output or product. Increased business efficiency has not produced great universities; increases in contact hours per FTE or in base budgets will not make great schools. Output as it is being used today by NCHEMS¹ and other model builders may ignore the major goals of our institutions and programs.

The qualitative dimensions of higher education are ironically the most difficult to count, add, factor, and weigh, yet may be the primary products of higher education. These qualitative goals must be stated as clearly as possible and the assessment of their achievement conducted at the highest possible level of sophistication. It is insufficient to apply simple counting systems to either the assessment of a student’s life goals or to the effects of the means of education on a student’s self concept. Yet we are faced with the pressure to provide numbers in support of our professional judgments. Local administrators are not alone in being faced with the problem. Of ten objectives of higher education, state legislators throughout the country reported that “community impact” was, in their mind, the

¹National Center for Higher Education Management Systems.
most important single goal (Micek & Arney, 1974). Translating community attitudes into something countable is more difficult than counting students.

All of the currently applied models (Perlman, 1974) require the presence of something that can be counted. Put another way, the management models require specific objectives, quantifiable variables, and visible criteria. Those things that can be counted are what the budget makers use. Head counts, credit hours, full-time equivalents, time to graduation, drop-out rates, dollar cost per degree, volumes in library, and student/teacher ratios are relatively easy to compute. Number numbness is what W. David Maxwell (1973) labels the phenomenon. The criteria used for judging “goodness” are selected because they can be counted. The outcomes of the application of such accounting criteria range from a reduction in the visiting professor’s budget to the termination of the degree programs. Many graduate degree programs have been terminated by action initiated by State Boards of Higher Education in the past few years. These terminations have been based primarily on the general criteria of high cost per degree and/or proportionately small numbers of degrees granted.

Specific Examples of State Board Program Review

For purposes of brevity, three states have been selected: Washington, New York, and Kansas. In 1972 the State of Washington Council on Higher Education identified programs to be reviewed by degree conferral rates (Furman, 1972). Those masters programs with three or less degree conferrals per year and those doctoral programs with two or less degree conferrals per year were divided into two categories. One group of degree programs were requested to be reviewed. Another group were recommended for review. Those recommended for review had high enrollment patterns but low degree conferral rates.

The reviews utilized the following criteria:

A. Ratio between enrollment and degree conferral to indicate rate of student progress.

B. Induced course load matrix information to determine one aspect of centrality.

C. Efficiency rating using the ratio of credit hour production to faculty salary costs.
D. Distribution of faculty by rank and the dollar value of grants and contracts.

E. Information about students, the program, its objectives, and the possible effects of discontinuation.

The State of New York Board of Regents Doctoral Evaluation Project began in January 1973 (Fleming, 1973). This program was designed for the evaluation of doctoral level programs; however, the criteria and processes appear to be equally applicable to the masters degree program. The New York State project was a two-stage process of data collection by a lengthy questionnaire, followed by consultant visits. The data collected included program objectives and a comparison of these to similar programs in the state and throughout the nation. The program structure was carefully examined in terms of course sequences, interdisciplinary and interinstitutional programs, the relationship of the graduate program to undergraduate programs in that discipline, and the administrative arrangements designed to support the program, including an examination of the financial aspects. Consultants were directed to examine the program in relationship to students' career goals, the faculty/student morale, the availability of faculty advisement and counseling for students, and a very thorough examination of the rate of student progress through the program. Faculty were evaluated on two primary criteria. One was the quality of their research, especially in the last five years. The second criterion was a professional judgment by consultants about how up-to-date they are in their discipline and their degree of enthusiasm.

In 1972 the Kansas Board of Regents (Bickford, 1972) divided its state's graduate programs into three categories: (1) those to be continued, (2) those to be on provisional status, and (3) those to be discontinued. The criteria used to make these judgments were:

A. Compatibility with institutional mission;
B. The social need within the state;
C. Unit cost of instruction;
D. Demand as indicated by credit hour production and number of degrees granted.

As a result of their review, 63 graduate programs were recommended to be discontinued, and 71 programs were placed on pro-
visional status, to be reviewed again within three years. By April 1976, 24 provisional programs had been terminated or merged with other programs, 30 had been removed from provisional status, and 17 remained on provisional status for another year (News Release, Kansas Board of Regents, 1976). The Kansas Board of Regents places heavy emphasis on degree conferral rates. Masters programs with an average annual production of between 2 and 5 degrees were placed on provisional status, and those with fewer than 2 degrees per year were discontinued. Specialists degree programs with an average annual production of 1.5 to 3 degrees were placed on provisional status, and those with fewer than 1.5 degrees per year were discontinued. Doctorate programs with an average annual production of between 1 and 2 degrees were placed on provisional status. Those with less than 1 degree per year were terminated.

The Lack of Clearly Stated Goals in Higher Education

The lack of clearly stated and agreed upon goals has been and continues to be the topic of much literature in higher education (Balderston, 1970; Brown, 1970; Miller, 1970; Oswald, 1973; Bell & Goldwin, 1975). To date we have had the luxury of avoiding a clear articulation of goals, and until recently institutions of higher education have not been called to account. We have enjoyed the luxury of supporting a diversity of goals and objectives without publicly stating them, much less examining and prioritizing our objectives. Having been raised in this independent and individualistic tradition, most administrators reluctantly make priority choices when budget reductions come along. If such choices are made without a set of agreed upon and rank ordered objectives, controversy and headlines follow (The Chronicle of Higher Education, 1975). Very few administrators have chosen or been forced into the position of having to choose program termination as a budget alternative but instead have used the “across the board” approach, usually in conjunction with the recommendations of one or more faculty budget committees. The qualitative survival of our academic programs may be threatened by the continued application of “across the board cuts.” Future program decisions must be based on an integration of financial and academic data. The availability to administrators of sound, usable judgments of academic quality will be a major step in effecting such an integration.
MODEL FOR INTERNAL PROGRAM REVIEW

A Modest Proposal for the Ranking of Existing Graduate Programs and for Prioritizing New or Expanded Graduate Programs

This proposal is based on the assumption that decisions dealing with new programs, program continuance, or program termination can be significantly influenced by carefully collected and systematically analyzed data dealing with academic quality. The collection and analysis of financial data must include major participation by university administration.

Existing graduate programs are reviewed on a five year cycle at the authors' university. The final review document for each program contains narrative comments and substantive recommendations. This year the program review committee has moved toward the inclusion of a numerical score as a part of the evaluation. The near future may see proposals for new programs being evaluated with comparable numerical scores. Most of us are accustomed to making such judgments about students. What is suggested here is that similar judgments be made about programs. The necessity for such comparable evaluations will increase as the present economic conditions and student enrollment patterns continue.

Assessments of quality must be responsive to the mix of objectives of each program being evaluated. Some programs are geared primarily to the production of new knowledge; others to the application of knowledge to the solution of societal problems; others to the development of skilled practitioners; still others to an appreciation for the quality of life. As the objectives vary in relative importance, so too must the criteria used to judge the success of each program in meeting its objectives. Therefore, the weight to be assigned to each of the criteria used to evaluate a specific program should be accomplished through negotiation between the appropriate faculty council or committee and the administrators of the program under consideration. The limits on the negotiation process should be defined in a manner that insures the consideration of each criterion by the program under review and the appropriate review committee. One strategy would be to require the weights assigned to all criteria to total 25. The rationale for this will be clear later.

Five major criteria suggested for use in internal program review are:

1. Quality of instruction and learning
2. Quality of faculty
3. Centrality of the program's contribution to its institution and other universities
4. Program value and/or uniqueness
5. Potential

A further definition of each of these is provided in Table I, "Checklist of Indicators." After the several criteria are identified and the components of each are detailed, the next task would be to decide the minimum weight limits that should be assigned to each. For instance, it may be decided that the quality of instruction and learning (QIL) should be assigned greater weight than the quality of the faculty (QF). As a specific example, QIL might be assigned a minimum weight of 6 and QF a minimum weight of 4. The remaining criteria would be assigned weights totalling 10. After such decisions are made by the faculty council, each program would then distribute the remaining weight of 5 across the criteria to a total weight of 25. A hypothetical example is provided in footnote 2.

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2Assume that the review council or committee has assigned the following minimum weights to each of the five criteria:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Minimum Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Instruction</td>
<td>6</td>
</tr>
<tr>
<td>Quality of Faculty</td>
<td>4</td>
</tr>
<tr>
<td>Centrality of Program</td>
<td>3</td>
</tr>
<tr>
<td>Program Value/Uniqueness</td>
<td>3</td>
</tr>
<tr>
<td>Potential</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

The agronomy department has the task of assigning the other remaining five points to make the total of 25. For instance, they may wish to emphasize the program's potential by adding two points to that criteria making its weight 6 and adding one to Quality of Faculty and two points to Quality of Instruction. Thus, for the agronomy review the criteria would be weighted thus:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Final Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Instruction</td>
<td>8</td>
</tr>
<tr>
<td>Quality of Faculty</td>
<td>5</td>
</tr>
<tr>
<td>Centrality</td>
<td>3</td>
</tr>
<tr>
<td>Program Value</td>
<td>3</td>
</tr>
<tr>
<td>Potential</td>
<td>6</td>
</tr>
<tr>
<td><strong>Final Total</strong></td>
<td><strong>25</strong></td>
</tr>
</tbody>
</table>

By this distribution the agronomy program indicates that the Quality of Instruction, the Program's Potential, and the Quality of its Faculty are the major criteria on which it wishes to be evaluated.

3Sample sets of the questionnaire instruments that are partially keyed to the Indicators in Table I are available from the authors. These instruments are in use by the Graduate School, Southern Illinois University at Edwardsville.
## TABLE I
Checklist of Indicators for Internal Program Review

1. Quality of Instruction and Learning.
   a. Assessment by current and/or prospective students of courses, teachers, and overall program.
   b. Program assessment by recent graduates.
   c. Admission and retention standards related to program objectives.
   d. Availability of adequate instructional space and facilities.
   e. Commitment to and concern for instructional programs.
      i. Effectiveness of student advising.
      ii. Distribution of instructional load by student level and faculty rank.
      iii. Responsiveness to individual student needs and attitudes.
      iv. A faculty reward system to promote quality instruction.
      v. Rate of student progress through the program.
   f. Equivalency of the several specializations and/or program options in terms of enrollment, completion rates, faculty status and reward, and advising.

2. Quality of Faculty.
   a. Ratings by professional societies, consultants' reports, state funded projects.
   b. Outside research support compared to that for other programs or faculty in the field.
   c. External (to program) recognition of staff members.
      i. Exhibits, commissions, prizes and awards.
      ii. Lectureships, visiting appointments.
      iii. Advisory appointments, consulting, review panels, etc.
      iv. Offices held and professional activities.
      v. Other honors and awards.
   d. Publications and other evidence of creative productivity, especially last 5 years.
   e. Creative and efficient use of space and facilities for research and other creative activities.

3. Centrality of the Program’s Contribution to the local Educational Community and Other Universities.
   a. Relation of program to institutional mission.
   b. Instruction of students from other programs.
c. Contribution of program to interdisciplinary and interinstitutional program.
d. Novelty, i.e., the absence of unnecessary and nonproductive overlap with other programs on campus.
e. The presence of a planning process that includes representatives of constituencies such as students, faculty, employers, and potential employers.

4. Program Value and/or Uniqueness.
   a. Contributions to the development of new knowledge, the application of knowledge to the solution of societal problems, or the development of skilled practitioners.
b. Value to society of graduates.
   i. Relationship of recent graduates' placement to program goals (within state and nationally).
   ii. Projected needs of society for graduates.
   iii. Suitability of program content.
   iv. Availability of similar programs of comparable quality.
   v. Role and function of minority/disadvantaged students in program.
c. Productivity and recognition of graduates from program.
d. Value added to graduates by program.

5. Potential.
   a. Prospects and potential of program judged by:
      i. Faculty and director.
      ii. Faculty in related areas.
      iii. Outside experts.
      iv. State and national projections.
b. Quality of leadership and intellectual life of program as judged by:
   i. Faculty and students in the program.
   ii. Others on campus.
   iii. Outside experts.
c. Program's objectives in the context of changes within the discipline(s).

The task of the appropriate committees would then be to collect the necessary information to provide each of the criteria with a score on a common scale, such as 1 to 10. It would then be a simple
matter to carry out the arithmetic implied in the equation below to arrive at a total score for the program. In the present example a perfect score would be 250. The equation would have the general form of:

\[ b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 = Y \]

The \( x \)'s indicate the criterion score, and the \( b \)'s indicate the relative weight assigned to each. \( Y \) would be the program's total score.

Other Outcomes of Effective Program Review

The purpose of this paper is not to argue with the application of any specific criterion for use in program review. It could be argued that high cost programs with low degree productivity should be terminated and that the best teaching and learning take place in large classes with poorly paid instructors. This is not the point. The point is that unless faculty and local administrators agree with the criteria and processes that are currently being applied by State Boards of Education to the budget-making process and subsequently applied to program support in higher education, we must be prepared with alternative or supplementary criteria and data for systematically evaluating programs. The day is rapidly approaching when the 10 per cent across the board budget cuts can no longer be absorbed by the institution. Decisions about program termination will be made; and if individual institutions are not in a position to make such determinations, these judgments will be rendered at the next higher level.

At the more local level, program review, as it is presently conducted by the Graduate Council's Program Review Committee at the authors' institution, provides many benefits, not the least of which is to educate members of the multidisciplinary committees who do the actual reviews of university programs outside their own specialties.

The act of asking questions of graduates, drop-outs, current students, and faculty about goals, objectives, educational process, and their relationship to each other causes each to pause to contemplate these matters. Specific program strengths and weaknesses are often identified. Curricular revisions have been initiated or expedited as a result of the review process. Student information systems have been found seriously lacking and are being modified. The follow-up of graduates has been encouraged and is taking place in some departments for the first time. Questions and recommendations about
academic quality and student flow have produced positive program revisions.

If we are to preserve a minimum of local control over programs, it is a necessity that we provide our administrators with carefully developed professional judgments about every existing and new program in a way that communicates that some are better than others. The closer we can come to providing a quality rank order, the more influential our judgments will be.

LITERATURE CITED

PROBLEMS IN ADMISSIONS IN U.S. DENTAL SCHOOLS

ROBERT W. MENDEL, D.D.S. AND W. GARY TABB, D.M.D.

DENTAL SCHOOLS assume that the professional competence of a dentist throughout his career depends to some extent on his learning potential when he entered dental school and also that his long term social views are basically those he held when he entered professional training, even though both his professional competence and social views may be somewhat altered by learning experiences in school and in later life. Today the dental profession as a whole wishes to assure itself, first that the competence of its members will continue to improve, and second that the number of people provided with quality dental care will continue to increase. Entrants into the profession must be capable of making the judgments, learning the skills, and acquiring the attitude necessary to further these goals. Therefore, dental school admission policy must direct significant attention to the number of selectees who might enter each of the dental career fields and to those who might eventually serve population segments which today receive little dental care.

This paper will address itself to dental school admissions officers and committees in the hope that their formulation and administration of admission policies in the future will take into account changes in the needs of the profession and of the public for quality dental care. The purpose of this paper is not so much to solve current admission problems as it is to review the literature and suggest possible solutions. First of all, the identification and measurement of qualities which contribute to a dental student’s success as a student and later as a professional constitute the primary admissions problem faced by American Dental Schools. Secondly, other problems which affect the profession’s ability to deliver adequate dental care to all persons face both applicants to dental schools and admissions committees. There is a need in the profession today to pull together and examine these problems since obviously problems must be identified before they can be solved. The authors will in the process of identifying problems, review some interesting institutional approaches to individual problems and offer some suggestions of their own.
NEEDS OF THE PUBLIC AND THE PROFESSION

At present the needs of the public include general practitioners who will serve inner city and rural as well as wealthy and middle class areas, clinical specialists who can treat difficult dental problems, dental researchers who will extend the body of dental knowledge and who will explore new methods for the delivery of dental care. In addition administrators and educators are always needed to train increasingly capable individuals in all areas of dentistry.

DESIRABLE QUALITIES IN A DENTIST

The predoctoral dental curriculum is demanding; the postdoctoral specialty and graduate programs, even more challenging. Graduate dentists are expected to keep up with, even further, changes in their profession. It is, therefore, not surprising that a high learning capacity is among the most sought after qualities in dental applicants. Superior perceptual motor ability is equally desirable because of the difficult psychomotor procedures in dentistry. In addition the profession expects that a dentist have genuine concern for his patient's interests and that he contribute professionally and socially to the community. To these ends, dental schools seek candidates with high standards of social awareness, moral conduct, personal appearance, and interpersonal relations. Specific interests in teaching or research, a desire to practice in rural or inner city areas, or membership in minority groups traditionally underrepresented in dentistry are especially desired in applicants because such individuals may be educated to fill special needs of the profession and of society.

THE APPLICANT POOL

With these ends in mind the admissions policy of a school of dentistry becomes crucial. What sort of policy will provide the best mixture of generalists, specialists, and educators as well as dentists to practice in areas now served poorly? Not all dental schools attempt to produce this mixture; each institution's policy varies with its conception of society's need and with its available pool of applicants, but dental schools in general can afford to be very selective. The American Dental Association(1) reports that in 1974 only one applicant in three was accepted into American dental schools.
Applications have doubled in the last ten years, partly because of poorer opportunities in related fields. Furthermore, the pool of applicants varies tremendously among institutions: a school with an abundance of applicants must identify those who are best qualified while a school with relatively few applicants must step up its recruiting.

FACTORS USED TO IDENTIFY BEST QUALIFIED STUDENTS

The literature within the past ten years identifies the following factors as criteria most often used by American dental schools in selecting their entering students:

1. Undergraduate Grade Point Average (G.P.A.), especially Science G.P.A.
2. Dental Admissions Test (D.A.T.) scores.
3. The quality of the applicant’s undergraduate education.
4. The educational level of the student.
5. Evaluation of the student by predental advisors.
6. Interviews by dental school faculty members.
7. The student’s place of residence.
8. Requirements for Federal Government Capitation grants.
9. The student’s sex or minority group status.

While a good deal has been published concerning factors which contribute to a student’s success in dental school—measured by high didactic, technique, and clinical grades as well as by the National Board Examinations offered by the American Dental Association—relatively little has been accomplished with respect to defining or measuring success in dentistry after graduation nor with correlating that with the above criteria.

THE G.P.A. AND D.A.T. SCORES

Data supplied by the American Dental Association indicates that undergraduate G. P. A. and D. A. T. scores are the best predictors of National Board scores, although none of the D. A. T. scores are good predictors of technique or clinical grades. (2) Full and Foley share this opinion. (3) Yancey (4) developed a single index of dental student success using 37 dental school course grades and 13 National Board category scores. The following five predictors showed a higher correlation with this index than any other predictors tested:
Undergraduate G.P.A.
D.A.T. Reading Comprehension Score
D.A.T. Total Science Score
D.A.T. Academic Average Score
S.A.T. Verbal Score

Eselman (5) correlates class rank at graduation with class rank at the end of the freshman year in dental school. He also reports that undergraduate G. P. A. in required subjects (primarily science) predicts academic success more than any other factor. Full and Foley (6), on the other hand, report that success in the first academic year correlates highly with success in anatomy, and is perhaps unrelated to selection criteria.

QUALITY OF UNDERGRADUATE EDUCATION

Durocher (7) is concerned with the quality of a student’s undergraduate education. While he concurs that G. P. A.’s are a prime selection factor at nearly all schools, he believes this results in “fierce, cut-throat competition” for high grades with admission to medical or dental school as the prize. Unscrupulous students resort to plagiarism, ghost writers, tampering with records, and “ringers” in examinations; even an honest student’s high scholastic achievement is lessened by a faculty’s overall inflation of grades so that their students may gain admission to graduate and professional schools. The D. A. T. scores, since the test is given under carefully controlled conditions, are more reliable in comparing one student with another. Nevertheless, the American Dental Association (8) cautions that D. A. T. scores are not completely reliable as a means of ranking the quality of a student’s undergraduate curriculum because (1) all students from each college do not take the test, (2) a student’s major field of study is not indicated, and (3) the number of years of preprofessional education varies.

EDUCATIONAL LEVEL OF THE APPLICANT

Usually, a minimum of two academic college years is required for admission to dental school. However, with increasing competition, the less preparation a candidate has, the higher his academic performance must be. Data from the A. D. A. (9) indicates that in 1974 eighty-four per cent of the applicants to dental schools had earned baccalaureate degrees and 10 per cent had completed be-
between three and four years of undergraduate work. The Council on Dental Education of the A. D. A. reports a trend in dental school admissions which encourages acquisition of a baccalaureate degree prior to enrollment in dental school.(10) While a student may succeed in his dental studies without a full four years in college, the dental profession and the public expect the graduate of a dental school to possess the maturity, social awareness, logical thinking, and ethical behavior associated with a liberally educated person. These qualities tend to be developed during the undergraduate years and ripened during professional training.

EVALUATIONS BY PREDENTAL ADVISORS

Evaluations by predental advisors have more value for selection committees if the advisor has had the student in his class or has worked closely with him in other ways. In some colleges predental advisors act as an unofficial screening committee for a student's entrance into dentistry since they are in a position to encourage undergraduates to apply for admission or not. These evaluations have not been correlated with success in dental school or after graduation, but are very useful in recruiting as will be illustrated later.

INTERVIEWS

Whether or not to interview candidates for admission to dental school is a controversial subject. Forty per cent of all schools interview over half of their accepted applicants.(11) Morse and Moebes(12) conclude that the interview has little effect on the admissions decision. It expends time and money for the applicant and for the faculty of the dental school. The interview is, however, a valuable recruiting instrument. Morse and Moebes' study indicated that an individual interview by a faculty member was a factor in the student's choice of dental school.

SOCIAL AWARENESS

Recently some dental schools have tried to identify social awareness in their applicants. Patterson and Kret(13) reported that 40 per cent of the deans and faculties of community dentistry in twenty schools were dissatisfied with the academic preparation of their students in the social sciences and wished to select more socially sensitive students. Those expressing this opinion believed that den-
tal schools select students who have similar social attitudes. This selection, they believe, tends to produce a social posture which is shared by the student body and the institution alike. Consequently, innovation within the school becomes stifled. To avoid this, they suggested that a method be developed for measuring social sensitivity in an applicant and that selection procedures be altered to admit more students who displayed this characteristic. They recommended that schools reduce their science requirements for admission to allow for more social science courses. They also recommended that more women and minority group members be admitted. They believed that dentists from minority groups are likely to be most effective in certain communities. Some of those questioned saw a negative correlation between mechanical interest and social sensitivity, and they encouraged admission committees to insure that manual dexterity tests do not exclude socially sensitive students.

In 1971 the Council on Dental Education of the A.D.A. tried to introduce a social awareness questionnaire into the D. A. T. program. Its purpose was to identify students who were apt to experience difficulty adapting to the dental school environment. However, it indicated nothing about a student's social sensitivity. This questionnaire was not adopted.

**IDENTIFICATION OF USEFUL CHARACTERISTICS IN CANDIDATES**

How much influence can an admissions committee exert on the ultimate delivery of dental care? A candidate selected for dental school will be affected by a great number of factors before he finds his particular niche in the dental profession. How can an admissions committee determine five, ten, or twenty years later whether the characteristics which identified a qualified student were those which facilitated his contribution to society's need? A dentist's success in dentistry needs definition; furthermore, the characteristics of a successful dental student need to be compared with those of a dentist who meets this definition of success. At present the only positive correlations available are those between undergraduate G.P.A.'s and D.A.T. scores and the degrees of success in dental school as measured by dental school G.P.A.'s and National Board scores. If positive correlations between the criteria of success in dentistry and certain characteristics of dental school applicants can be determined, a yardstick for better evaluation of candidates for ultimate success in dentistry will be available. Do dentists delivering high quality dental
care really have high undergraduate G.P.A.'s? Do they have a high record of achievement in dental school? Do black dental students ultimately practice in poor black areas? Information such as this can be used not only to select candidates likely to serve the people's needs, but also in solving other admissions problems.

Useful as correlations between characteristics at admission and criteria of success after graduation would be, they must be used cautiously. Many factors contribute to a dentist’s success after his admission to dental school. Furthermore, a danger in selection exists if one desirable characteristic overshadows another which may be even more desirable. If sufficient candidates possessing a high degree of social awareness and of manual dexterity cannot be found, for instance, can we really sacrifice quality dental care in the hopes of facilitating its delivery?

**EFFECT OF THE RELATIONSHIP BETWEEN ADVISORS AND THE DENTAL SCHOOL ON STUDENT RECRUITMENT**

In certain areas, the relative scarcity of well-qualified applicants for dental school admission may be due in part to dentistry's unsuccessful competition with other professions for the better qualified students. A 1965 report by Dr. R. H. Friedrich of Columbia University (15) included surveys of some predental advisors' attitudes toward dental education together with steps taken to reverse these attitudes.

The advisors believed that the predental student was not interested or as competent in science nor as enthusiastic about his career as was his premedical counterpart. Advisors faulted dental schools for not specifying predental educational requirements and for admitting applicants without the support of advisory committees. They pointed out the dental schools' willingness to disregard the American Association of Dental Schools' rule by informing applicants of acceptance prior to the agreed date. They deplored the lack of competition which resulted in unqualified students at some dental schools. Some of the better students admitted to dental school reported back to their advisors that the curriculum was unchallenging and the standards low. Clearly predental advisors in the colleges were not communicating with the admissions committees of dental schools. Some advisors did not even understand the pre-professional requirements and recommended too little science or survey courses intended for non-science majors. Advisors not familiar with the rigor
of the dental curriculum recommended students who were likely to fail.

To correct these deficiencies in communication, Columbia University promoted a series of conferences between these advisors and its dental school admissions committee. These conferences extended over three years and resulted in suggestions later implemented by the school or the profession itself. The conferees made a number of recommendations, among which were to include more courses in the arts, humanities, and social sciences in predental curricula, to extend preprofessional education to the baccalaureate level, to build the "scientific image" of dentistry in the eyes of students, to have respected professionals work with predental societies in colleges, to send representatives to campuses to talk with students about dentistry as a career, and to keep undergraduate advisors informed about dental school admissions requirements. Other recommendations suggested publishing D.A.T. scores and G.P.A.'s of students from different dental schools as well as statistics about each school's numbers of in-state applications and out-of-state applications. More feedback to colleges on their students' progress in dental school was also recommended. The conferees suggested that students should be given clear information about financial requirements and financial aid, and finally, that correlations among factors which help them succeed in school, as well as school and professional performance be made available to them. (16)

Cooperation between an admissions committee and preprofessional advising committees seems to have benefitted the University of Pennsylvania as well. In 1971, this school had 600 applicants for 158 positions in the freshman class; in 1974, it had 3000 candidates for the same 158 positions. The former director of dental school admissions attributes part of this increase to the excellent relationship between the predental advisors of feeder colleges and the admissions office of the University of Pennsylvania School of Dentistry. (17) He points out that predental advisors are often the prime source of information about dental school admission. He believes that a working arrangement between the dental school and these advisors is even more important in recruiting a pool of qualified candidates for admission than it is in the process of selecting them.

An increase in the number of qualified candidates in admission pools can be affected by other schools using the recruiting tactics
of the University of Pennsylvania and of Columbia University. More high school recruiting by dental students and professors should interest qualified individuals in dentistry before they enter college. State and local dental organizations could work with organizations such as the Y.M.C.A. and the Boy Scouts to generate this interest. Dentists might speak, act as models, or even sponsor activities such as those which have resulted in the addition of a merit badge in dentistry by the Boy Scouts. College chapters of the National Predental Students' Society should be organized to disseminate information to prospective students. Dental schools should appoint full time chairmen of admissions committees, and undergraduate institutions should reduce the teaching load of preprofessional advisors. Finally, a good working relationship between the admission committee and predental advisors at feeder colleges yields dividends for the dental school.

So far this paper has concerned itself with the identification and measurement of qualities which contribute to a student's success in dental school and in later professional life. Although this is the primary problem in dental school admissions, there are others, including (1) the influence of state government on admission policies, (2) the influence of the federal government, (3) the admission of minority group members, and (4) the admission of women. The remainder of the paper will review the problems which attend these changes and suggest some solutions.

INFLUENCE BY STATE GOVERNMENTS

Most American dental schools are associated either with state universities or with universities which receive significant amounts of state aid and are, therefore, required to select the vast majority of their entering students from among the applicants who are state residents. In 1974, over 70 per cent of American dental schools filled more than two-thirds of their entering class with state residents. Only eight of the country's 59 dental schools (14 per cent) selected one-half or more of their freshman class from among out-of-staters. (18) Geographic restrictions on admission also involve agreements with nearby states not having dental schools to accept, under an appropriate financial arrangement, a quota of applicants from that state. Still an applicant's chances for admission to dental school vary significantly with his official state residence. In 1974 forty per cent of the applicants from seventeen states were accepted
while less than 30 per cent of applicants in nine other states were enrolled. (19) Applicants from areas not included in any school’s special admission policy are at a distinct disadvantage.

A geographically restructured admissions policy would influence the size of a school’s applicant pool. In 1974 schools which accepted one-third or more out-of-state applicants had an average of 26.6 applicants for each opening. Schools which accepted less than one-third out-of-staters averaged only 11.6 applicants for each student accepted. (20)

The size of the applicant pool varies throughout the country. In 1974, Northwestern University Dental School received 3,651 applications for 105 places in its freshman class, a ratio of 35 to 1. The Medical College of South Carolina, on the other hand, had only 179 applications for its 54 freshman positions, or about three contenders for each place. (21)

Present geographically restricted admissions policy often results in the rejection of out-of-state students who have higher G.P.A.’s and D.A.T.’s than in-state students who are accepted. Also the present policy might contribute to a high rate of academic failures among beginning students.

Nevertheless, easing geographic restrictions to dental school admission could be difficult for state supported schools. Since entrance to dental school is so difficult, there is a great deal of pressure by state legislators to gain admission for their constituents, and many legislators are reluctant to endorse the release of entering class places to out-of-state residents. Economic barriers exist as well. State legislators often cannot justify paying the educational costs of dentists who will practice in other states. The resulting out-of-state tuition, which is well above tuition for state residents, imposes a financial barrier for the out-of-state student. The University of Colorado, for example, charges 100 per cent of the actual cost of its instruction to all students, but waives 87.5 per cent of the cost to in-state students who agree to practice in certain areas of Colorado. (22)

Out-of-staters pay full tuition. Since the annual cost is over $10,000 all serious applicants have been Colorado residents.

Perhaps only when significant numbers of state legislators, officials, and influential individuals are convinced of the need to create a national or international reputation for the university can these geographic restrictions be lowered. At present, it is doubtful if much can be done to relieve the pressure on state legislators generated by
constituents who wish to gain admission to dental school for themselves, their friends, or their relatives, but this pressure may be somewhat relieved if dental school entrants agree routinely to practice after graduation for a period of time in an undoctored locality of the state.

Geographic information locating graduates of each dental school and correlating that with their state of residence at application might be useful to educators and legislators. It could be used to determine if their school's admissions policy fulfills the needs of the state for dentists and might be instrumental in changing the attitudes of state governments toward admission policies.

**INFLUENCE OF THE FEDERAL GOVERNMENT**

In order to qualify for federal grants of $1,500 per student per year which may allow them to balance their budgets, dental schools might soon find it necessary to accept a certain percentage of students who are willing to meet federal government conditions to practice in areas where there is a shortage of dentists. The government has proposed for 1977 that a dental school set aside 15 per cent of its openings for students willing to accept a scholarship for later service in a shortage area. By 1979 this percentage is to be increased to 25 per cent. The school will also be required to increase its enrollment by 10 students or 5 per cent over the base academic year 1975-76, whichever is greater. Dr. H. Barry Waldman of the School of Dental Medicine of SUNY at Stony Brook, New York, believes that legislation of this sort has had a poor track record. He points out that virtually all of these repayment programs have failed in the past. Physicians and dentists have preferred to pay back large sums of money at inflated interest rates rather than practice in areas with few physicians and dentists. He is ever more concerned with the continued government encroachment on admission policy. He believes that statements by applicants that they will meet certain obligations in the future have little value. (23) Dr. Harry W. Bruce, executive director of the American Association of Dental Schools, disagrees. He believes that the loan repayment program has much potential and mentions that over 600 dentists now practice in shortage areas as a result of this experiment. (24)

Self regulation is a key to professional status. Dentistry became a profession by policing itself, and its ability to provide quality dental care to the public is in direct proportion to its ability to
maintain its professional standards. Maintenance of these standards, in turn, depends on the profession’s ability to exercise control over the quality of those admitted to its ranks. The public holds the profession accountable for the quality of its members. Today, however, federal legislation is diluting the profession’s influence over the admission to its schools.

Government agencies influence dental school admissions policies primarily by threatening to withdraw needed funds. Even though the federal government contributes only a fraction of a school’s annual budget, it influences the criteria for admitting 100 per cent of the students. There seems little hope of reducing this federal influence to a fair level, i.e., to a percentage of the entering class positions which corresponds with the federal government’s contribution to that school’s budget; however, to maintain maximum control over its own admissions policies, a school should resist the temptation to allow government grants to become a permanent part of its budget. In addition, dental schools should anticipate the public’s needs and initiate programs and modify admission standards to meet these needs before the federal government introduces legislation to correct a problem.

ADMISSION OF MINORITY GROUPS

Because the admission of minority students to professional schools is a major concern today, the government has awarded grants for developing programs designed to prepare minority individuals to qualify for entrance to professional schools. Blacks, in particular, have been cited as under-represented in the health science professions. At present 11 per cent of the population of the United States is black and only 3 per cent of its dentists are black. (25) While most dental schools have graduated a few black dentists, two schools, Howard and Meharry, graduate over 70 per cent of all black dentists. Only recently have other schools begun to recruit qualified black students. Schools which have been most successful in this endeavor include the University of California at Los Angeles, the University of Southern California at San Francisco, the University of Detroit, the Medical College of Georgia, the University of Illinois, the University of Michigan, and the University of Maryland. (26) Four categories of problems involving the admission of blacks to dental schools will be discussed: the lack of acceptable academic background of black applicants, the difficulty of black
students adapting to a dental school environment, the paucity of black applicants, and the insufficiency of financial aid for black students.

LACK OF ACCEPTABLE ACADEMIC BACKGROUND

Most black high school students feel that dentistry is an unrealistic professional aspiration for them. According to Hausmann and Deutsch (27) not many blacks take science and mathematics in high school and are therefore unprepared to compete in a predental curriculum. Black college graduates are similarly unprepared for the academic rigors of dental school. The eight dental schools which have increased their minority enrollments appreciably have dealt with this problem in a combination of ways. In some cases, a minority student is accepted conditionally. The condition usually is that he successfully complete an accelerated summer program which may include courses in anatomy, histology, biochemistry, physiology, or principles of operative dentistry. Development of study and examination skills and some practice in manual skills is usually included. Recruiting for these summer programs may be from local colleges or, like the Medical College of Georgia, may be nationwide. Most programs attempt to provide models of blacks who have succeeded academically. U.C.L.A.'s tutors are minority students who live with the students in dormitories and hold evening tutorials. Michigan's one week orientation program is presented by a firm of black pedagogical experts. Many schools provide "big brothers" in the form of tutors. At Detroit the tutorial program was supervised by Dr. W. G. Rayburn, Associate Dean and Director of the Office of Supportive Programs, who is a black himself. Some schools will allow reduced loads for students in trouble. Maryland has a summer remedial program which allows the slower students to catch up. Harvard's Health Careers Summer Program, a prototypical remedial program which has been in effect for six years, has been directed mainly toward placing minority students into medical schools.

ADAPTATION OF BLACK STUDENTS TO THE DENTAL SCHOOL ENVIRONMENT

Summer courses and tutorial aid not only acclimatize the black student to his new academic environment but help him in his psychological adjustment which is usually more difficult for him than
for a white student. To encourage communication and support among this group, Michigan allows its black dental students to live in the same dormitory where they work and study together and reinforce each other's strengths. The Black Dental Students Association at Michigan believes this peer group support is a big factor in the success of blacks in that dental school.

FEW MINORITY APPLICATIONS

The problem of recruiting minority students for dental schools involves gathering a sufficient pool of applicants from which to select qualified students. Medicine recruits more blacks than does dentistry; the black student usually has had no association with black dentists and has little idea of the scope of dentistry. General recruiting tactics, however, with some modification, serve to increase the minority applicant pool. U.S.C. contacts community organizations to facilitate awareness and ambition among black, Chicano, and American Indian students. The Medical College of Georgia's two-month summer program orients high school students to college and exposes college students to biomedical subjects at the graduate level. In addition, the program sends black dental students to work with students in black colleges in Georgia. Usually in black colleges, students and counselors have much contact with dental school representatives. Detroit uses representatives of the all-black Wolverine Dental Society as recruiters; they meet with the dean and act as an adjunctive minority student admissions committee. Dr. W. G. Rayburn of the University's Academic Supportive Program office participates in the selection of minority dental students and communicates with the undergraduate branch of the University. Michigan employs a black recruiting officer, a recent graduate of the dental school, who can recruit anywhere in the United States and has the authority to weigh credentials of minority applicants without the detailed review of the admissions committee. Maryland has a Minority Recruitment Committee which provides information to community organizations, holds conferences for predental advisors and undergraduate faculty of Maryland colleges, and visits these colleges on recruiting trips.

FINANCIAL AID TO STUDENTS AND PROGRAMS

Dental school funds for student aid, recruitment, and remediation come from the usual sources: student fees, endowment sources,
thus have a considerable effect on the relative numbers of first year and advanced applicants admitted. Use of the CUM GPA would shift acceptances towards the first year, while use of expected probability of graduation would not alter the present state of affairs. Presently, a 2.0 TR GPA is all that is required of transfers and a 67 the minimum AI of freshmen.

This illustrative study thus establishes that if the principle of equity is to be applied across all applicants, institutions must first make explicit their priorities and philosophy of higher education as a basis for selecting the definition of student success which will be operationalized in their admissions policy. The present research should not be taken as a complete admissions study in any sense. It represents the first stage only in the process of developing an admissions policy. It provides an empirical basis upon which policy makers, faculty and administration, can clarify educational goals, selecting the logical definition of student success. Once this has been done a third stage, searching for the best technique for predicting that criterion, must ensue. It is anticipated in the present situation that other predictors will improve accuracy, i.e., predictors such as aptitude/achievement test scores and HS GPA for transfers as well as high school students, amount of prior college work (TR CRED), nature of the sending institution, to name a few. Finally, after predictors are selected, actuarial formulas can be developed for a general admissions index which ranks all applicants in terms of their potential for university success.

REFERENCES
Book Reviews

ROBERT A. SCOTT


Dr. John D. Millett, presently Senior Vice President for the Academy of Educational Development and former Chancellor of the Ohio Board of Regents as well as President of Miami University in Oxford, Ohio, succinctly critiques that seldom defined process, the allocation of resources in higher education. He contends that higher education institutions are faced with the same allocation decisions faced by virtually every other economic enterprise. The problems are the meager financial resources available to education and how much of those resources should be given for which services, production, or output. No matter how we in the higher education community may want to avoid the objective and realistic aspects of college and university resource allocation, the process of determining who receives what resources for what productivity is very much "an exercise in power." Millett relates that, "Individuals and groups with power influence or determine in one way or the other the allocation of resources."

It is well recognized that faculties and students do not appreciate being reminded that colleges and universities are economic enterprises.

Yet each individual college and university is an economic entity, substantially concerned with obtaining and utilizing economic resources. In the process of getting and spending, colleges and universities have a choice: to behave as an economic endeavor producing and selling services or to behave as a body politic obtaining resources from taxation and philanthropy and distributing these resources as some particular power structure may determine. This choice is what both the governance debates and the allocation arguments within colleges and universities in recent years have been all about.

In any situation where scarce resources exist among individuals and groups, conflict about what is needed and worthwhile are inevitable.

In refining his definition of the resource allocation process itself, Dr. Millett offers three models or mechanisms: market-price; planning; and mixed economy.
The Market-Price Mechanism is the model for those brought up in the intellectual tradition of Adam Smith. As a means for allocating resources, it has gained wide acceptance in western society; the terms supply and demand are brought to mind. In higher education, under this mechanism, resources are given to those disciplines that enroll the greatest number of students or to those programs that have gained the greatest popularity; in other words, those components that produce maximum revenue. However, the market-price mechanism has received minimal attention in higher education. Economists in western societies have tended to discuss this mechanism in terms of industry, government, and the individual consumer. Millett favors the market-price system as a resource allocation mechanism in higher education, observing:

If a society is disposed to give value to individualism, to some freedom of personal choice, to satisfaction of wants in terms of individual preferences, the market-price mechanism then commands substantial adherence.

The Planning Mechanism is the model that is often used to correct the inevitable failures of the market-price mechanism at the personal level. The individual's contribution to the market-price production mechanism is often quite modest. For example, if the individual's wage rate is below the level sufficient to maintain an acceptable living standard, then planning becomes a valuable way of subsidizing or providing a better living standard. By way of illustration, in private higher education some departments may not enroll enough tuition-paying students to pay the costs of operating that department and to pay its faculty salaries. It is necessary to plan for this occurrence in the allocation of departmental resources. Millett contrasts the positive aspects of the market-price mechanism with some weaknesses in the planning mechanism. For example:

The principal disadvantage of planning as an allocation process is simply the substitution of the decision of a few for the decision of many about what to produce and what to consume. There is some real doubt that the planning mechanism can be successfully carried out except by a totalitarian regime.

The final resource allocation mechanism that Millett treats is the Mixed Economy Mechanism. This mechanism represents a hybrid economy similar to that which we are becoming increasingly familiar with in our society. It is an economic system that combines the elements of both the market-price and the planning mechanisms. There are certain characteristics of the mixed economy mechanism that stand out, as Millett observes:

In such a mixed economy, there is some continuing tension between each part of the whole, some persons and groups
striving to expand the planning sector. In this conflict, various values and preferences are at work, resulting in some gains and losses from time to time for each sector.

In the United States these tensions commonly occur at national levels of government between executive, legislative, and interest group powers; in higher education, tensions often occur between faculty, administrators, students, and trustees.

In higher education, the budget process has been primarily a planning procedure carried out by the administration. The planning mechanism is becoming increasingly difficult to use because of the many constituencies on campus that are sharing authority for the allocation of scarce resources. While governing boards have the legal power to allocate, faculty senates, students, unions, and other factions are involved in more and more instances. Each group representing its own special interests makes demands upon meager resources. The academic community is beginning to develop an awareness of the extreme complexities of decision-making under these new conditions, which have made the Market-Price Mechanism increasingly attractive to administrators. The label “market-price mechanism” as a term for allocating scarce resources will probably be rejected and more elegant academic terminology used. But the realistic marketplace concept of “expecting every academic ‘tub’ within the academic community ‘to stand on its own bottom’” will be followed.

Millett sees the allocation of scarce resources as one of higher education’s most critical issues. He feels that the market-price mechanism is a way of meeting this challenge, although he conceded that it may not always be the best basis for all allocation decisions. Faculty interests, student needs, and trustee concerns are all involved in the allocation of resources. He reminds us that the allocation process may be both a political and an economic “exercise in power.” The necessary changes, even the future survival of higher education, depend upon the experimentation now occurring in the allocation of resources. As an explanatory concept, the market-price mechanism can be helpful in promoting understanding about this process in higher education.


The evolution of traditional sex role expectations to a climate of unlimited options is not the result of spontaneous generation, but rather the product of a commitment at all levels and in all institutions; a commitment which must experience generations of agony.
The MIT Workshop on Science and Technology, as reported by Edith Ruina, addresses some techniques effective in implementing change, designs evaluation criteria, assesses origin points from which change must generate, and presents a clear projection of the process.

Most impressive are the reports on institutional commitments to maximizing the pool of human resources. Most discouraging is the recognition that solutions may be divisive, and, in many cases, temporarily destructive. The role-model concept emerges from the workshop as most useful.

The major challenge which exists for all sectors (the employer, the employee, the under-employed, the various educational institutes, ad infinitum) is the responsibility for resolving the under-utilization of women. The significance of this workshop is that it highlighted techniques for solving the problem—constant evaluation, mutual problem resolution, and the exchange of effective techniques.


This book is one of an impressive array of volumes that have appeared in recent years and have challenged the traditional belief among academicians that such subjects as witchcraft, divination, telepathic communication, and divine healing lie outside the proper bounds of academic inquiry. The editor of this collection of essays on occultism tries to demonstrate that “the occult is a legitimate and important area of investigation in its own right and an area leading to greater understanding of the society of which it is a part” (vii).

The editor approaches the subject of occultism not as a cultural fragment that has survived from ancient times, or as a collection of sociological artifacts to be studied out of an interest in antiquarianism, but rather as a living and developing reality, a vital component of contemporary society. In the introduction, he provides a valuable essay on the subject of magic as viewed through the interpretative lens of the sociology of knowledge and phenomenology. He argues that, while the magician, in many cases, is treated as a social aberration and is relegated to a peripheral position in society, he nonetheless exercises tremendous coercive power over the society-at-large from his marginal or liminal position. Further, although magic is, in effect, “a subculture of society, a deviant social world,” it is an integral part of society by virtue of the powers invested in the magician by the populace and the bureaucratic leadership alike. He concludes the introduction with a brief description of the career of occultism in the western tradition.
with the conclusion that "the esoteric tradition in western civilization is closely tied to the development of both religion and science."

The book is divided into three parts. Part I contains essays on esoteric doctrines formulated and propagated by charismatic leaders of occult movements, doctrines that play a formative role in the determination of the basic principles upon which the society is established and the ultimate objectives toward which it will strive. Part II contains a series of case studies of one of the more well-known but little-understood manifestations of the occult sciences—witchcraft. Part III presents a series of theoretical approaches to the study of the occult teachings and practices, from the perspectives of the disciplines of Anthropology, Sociology, and the History of Religions.

Limitation of space forbids even a bare enumeration of the chapter titles in this volume. I will limit myself to passing in quick review the titles of some of the more provocative essays by well-known authors: P. D. Ouspensky, a trained mathematician and physicist and the chief interpreter of the enigmatic Gurdjieff, discusses in "Esotericism and Modern Thought," some of the distinctions between ordinary and extraordinary modes of knowledge; Maurice Bouisson, in "Gnosticism and Its Survivals in Christianity," deals with the hermetic and alchemical aspects of the Christian tradition; Eric Voegelin seeks to formulate a theoretical definition of "gnostic movements" that can be applied to ancient and modern social movements alike in his essay, "Ersatz Religion"; C. G. Jung and Paracelsus (the latter a 16th century authority on alchemy) examine the nature of alchemy and its modern permutations; H. P. Blavatsky, the foundress of the Theosophical movement, treats the occult arts in India; and George Simmel analyzes the sociology of secret societies. Mention might also be made of W. B. Yeats' whimsical essay on Irish Fairies and their place in the esoteric folk culture of Ireland.

The essays in Part II deal with the nature and practice of witchcraft in the European Middle Ages and Renaissance, in 18th century Massachusetts, and in modern American cities. These writings betray the fact that witchcraft has assumed a remarkable number and diversity of social expressions in the western world over the past half millennium and has provoked a variety of social responses (both pro and con).

This is not the place to debate the issue of whether ethnographic or methodological essays are more effective in conveying an accurate picture of the nature of a particular cultural phenomenon or of a cultural system as a whole. It must be said, however, that the theoretical essays on the occult that constitute the third section of this volume demonstrate two things: first, some of the greatest minds in the social sciences and the humanities during the past one hundred
years have given serious intellectual thought to the cultural role of the occult, and, second, the plethora of data provided in ethnographic depictions of occult beliefs and practices can be fully and accurately understood only if the data are viewed with the aid of a well-conceived hermeneutical model.

The third section includes the following essays by recognized scholars: Henry Hubert and Marcel Mauss, “Magic, Technology and Science”; Marcello Truzzi, “Definitions and Dimensions of the Occult: Towards a Sociological Perspective”; E. A. Tiryakian “Toward the Sociology of Esoteric Culture”; and two essays by Andrew Greeley, “Implications for the Sociology of Religion of Occult Behavior in the Youth Culture” and “Some Notes on the Social Study of Mysticism.” These essays, taken separately and as a whole, provide convincing demonstration that witchcraft, alchemy, and other types of esoteric beliefs and practices continue to play a vital, if subsidiary, role in contemporary culture and for that reason are areas of research that cannot be ignored by those who hope to understand the contemporary world.

Also included in the volume is an extensive bibliography on alchemy, astrology, gnosticism, Kabbalism, Magic, Witchcraft, Satanism, and Secret Societies that will provide all interested readers with a general impression of the many other windows to the study of occultism that may yet be opened in the future.

This book will serve as an effective entrée to the study of occultism for the professional scholar and the general reader alike. While almost any knowledgeable critic might contest the editor’s choice of selections by suggesting that his own favorite essays on the subject should have been included, this volume should be recognized as a highly successful attempt to make an academic foray into certain “subterranean” dimensions of human experience and social organization that, until recent times, have been considered anathema to scholarly research. Therefore, the mere act of opening up these few small windows to the “Unknown” and the “Hidden” cannot but have a broadening and enriching effect upon scholarly tradition that has for years now been separating itself more and more from the perceptions of reality and the popular strata of society.


This is a neat, well-written little book that could be immeasurably valuable to a young woman as she considers or enters her college years.
Parents and counselors would also find it a fine source of information about what is likely to happen to students on the college campus. It describes accurately and forcefully the special problems faced by many students as they begin to cope on their own in balancing their time and their growth.

Although deceptively simple in style, Ms. Goes to College contains solid advice about selecting the appropriate college, considering career choices, adapting to the role of being a college student, accepting the responsibilities of womanhood, and confronting the challenges inherent in maturing.

There are straightforward factual chapters about the differences among colleges and various college curricula. Current campus mores and individual adaptation into the college environment are described. The book includes not only discussions on academic program planning but also chapters on sexual behavior and human physiology. Interviews with students are quoted and case-histories are cited that portray the painful dilemmas of young people. Such problems as depression, drug use and abuse, promiscuous sexual behavior, and unwanted pregnancy are presented as real-life experiences, with their effects described objectively rather than moralistically.

The book is written by the husband-wife team of Jean Glidden Henderson and Algo D. Henderson. Both are well-versed in the college scene, and their book is a clear example of a life-time spent in working with young people. Jean Glidden Henderson is a pregnancy counselor at the University of California at Berkeley who served previously as a Dean of Women, a drug counselor, a college registrar and admissions officer, as well as a teacher of psychology. Algo D. Henderson is presently conducting research in education at the University of California at Berkeley. His career in education includes service as a teacher, Dean and President at Antioch College from 1925 through 1948, and as Director of the Center for the Study of Higher Education at the University of Michigan from 1950-1966.

In Ms. Goes to College these two educators have written jargon-free prose of excellent quality about a difficult and complex subject. It is unclear why they chose to direct it toward a female audience and deprive, thereby, more than half the college age audience of a valuable resource. Both the title of the book and the use of the feminine pronoun throughout the book are jarring. The title is not consistent with the sophisticated content and style of the book; the emphasis on the Ms. portion of the population seems contrived to increase the sale of the book in a market bent on exploiting literature designed for the liberated woman. This is too bad, since most of the material covered in Ms. Goes to College is as pertinent for young men going to college
as it is for young women going to college, and some readers might be put off by a title that sounds like it was designed for a child's book.

Putting the title and gimmickry aside, the book deserves a place in any student's library (to be read by parents as well) and on the shelf of the high school and college counselor as a fine reference to students with questions about their college life.


Mary Lou Zoglin is a California state board member for community colleges and a former local community college trustee. She has drawn upon her experience, enriched with research, to present a general examination of governance and power structures in community colleges. She briefly outlines the historical development of "junior colleges" and then carefully analyzes the roles played by the different interest groups—lay citizens, federal and state governments, college president, administration, faculty, support staff, students, and board of trustees—in the governing processes of community colleges. She offers the book "as a guide" to help involved parties analyze the decision-making structure and process in their own community colleges and move effectively to influence them.

Zoglin presents her study in two contrasting manners. She has several chapters which focus on the needs and behavior of the individual interest groups and describe how the groups function in relation to the overall governance structure. These sections are clearly and logically organized, effectively analytical, and supported by substantive research. They lack, however, illumination; they read too much like a textbook. On the other hand, there are three chapters in which Zoglin relates fictionalized case studies of specific policy-making incidents in different types of community colleges. These chapters are successful—not only because they read well (plot, character, _et al._) but even more so because they perceptively illustrate important issues of power politics. While a book of this sort needs the solid, analytical research and exposition it contains, it is unfortunate that the overall approach could not develop a more unified and integrated style.

Zoglin's study is broad and thorough. She examines a complex system and refuses to oversimplify the relations of the inter-dependent groups that make up the constituency of a community college. Her purpose, then, is essentially descriptive rather than conclusive.

One special contribution this study makes is the recognition it gives
to the growing importance of collective bargaining in the community college system. Zoglin examines recent legislation and case examples across the country in order to point out how the introduction of this new element is changing the power processes in higher education. Both the hopes and fears of analysts of collective bargaining are being borne out: teachers are satisfied with the increased benefits and security; trustees and administration are dismayed by the new management problems and ambivalent about faculty participation in policy creation; students are beginning to realize the need to protect their own interests; and federal and state governments are creating new, potentially restrictive guidelines. Collective bargaining is the newest variable that even further complicates an already complex system.

On the whole, one must be satisfied with what Zoglin has presented; her thoroughness is exemplary. Her literary organization fails, however, to consistently engage the reader, and unfortunately this works against the overall success of the book. And if indeed the aim of the work is to be a guide for the diverse interest groups within a community college system, then one wonders if Zoglin's style and approach will disadvantageously limit her audience.


*Rebellion in the University*, first published in 1971 and republished with a new introduction in 1976, deals with the student protest movement as we experienced it in the recent past. It analyzes causes, places the movement in historical perspective, and sets forth some observations on the future. But the book is much more than a narrow study of protest movements and student activism. It is also a commentary on the way in which modern, research-oriented universities operate and the responsibility which their faculties assume for setting the tone at their institution.

The reader of the Phoenix edition has the advantage of being able to consider the events and issues discussed in a more dispassionate and objective manner than perhaps would have been possible when the book was first published in 1971. Through the skillful and authoritative use of historical references, Professor Lipset concludes that the protests of the 1960's, which centered around such diverse issues as the conduct of the Vietnam War, student participation in university governance, and course "relevance," were not unique to our time but were found in earlier periods as well, both in this country and abroad. The differ-
ence between earlier demonstrations of protest and those of our recent past, Lipset suggests, lies in the rapid growth of higher education in our nation since World War Two and more particularly since Sputnik, and the fact that today even a minority of our student population represents a sizable number of people.

While not complacent about trends in modern higher education, Lipset concludes that student attitudes toward protest and violent antisocial behavior are more a reflection of a total social milieu than they are a reflection of treatment by the university. He sees the modern student (circa 1971) as conventional in appearance and in the use of drugs, dedicated to academic achievement and a "straight" career. Five years later, in 1976, one suspects that his observation has been reinforced.

Lipset discusses the distinctions between the dissemination of knowledge through teaching and the investigation of new knowledge by means of research; the role of the political activist as compared with that of the scholar; and the potential for conflict in promoting scholarship while also seeking to broaden educational opportunity. A perceptive discussion of these issues and their relation to the protest movement provides insights into trends and developments in higher education that should be of interest to anyone active in student personnel work and particularly those who serve as links between students and faculty.

The author, a professor of political science and sociology and a senior fellow at the Hoover Institution, Stanford University, draws on a broad range of materials and makes judicious use of the results of opinion surveys to buttress his observations, arguments, and conclusions. In looking to the future, two conclusions stand out: Protest movements will arise again if historical experience means anything, and Lipset thinks it does. A vocal minority of students, subject to the conditions of modern day mass education, can influence public policy and the subsequent direction of our country. But, as Lipset observes, as these same individuals become older and more established, their views tend to take on a more conservative coloration and they are not as inclined to seek radical political changes.

This book should serve to help the reader understand the phenomenon which many of us experienced first-hand in one degree or another only a few years ago and should be a welcome addition to one's professional library. It is not simply a rehash of old conflicts and issues as its title might imply.

According to Clarence J. Karier in his fascinating new collection of essays, the educational state has, since its inception, been shaped by the power elite it serves. The question of who shaped the policies which guided education is important in the overall notion of just how meritocratic the system is. Karier demonstrates that the liberal reformers and professional educators who managed the system and implemented policy created a structure that was anything but meritocratic. He states, "American society is structured to foster a dehumanizing quest for status, wealth, and power. . . . We live in a fundamentally racist, materialistic, society which cultivates the (quest) . . . in such a way as to protect the vested interests." The educational system, says Karier, has been the handmaiden of these vested interests.

Karier demonstrates that leadership, scholarship, and policy recommendations generally were determined by the dictates of the economic and political elite rather than the results of pure scholarly research. Setting the creation of the American educational state within the emergence of the corporate liberal state, the book holds that the compulsory elementary and secondary educational system, capped by the university, became a part of that corporate system. Citing key documents on academic freedom by Professors Ely, Bemis, and Ross, and essays and summaries by John Dewey and Sidney Hook, Karier defends his thesis. Writings by "learned professors" on testing, sorting, tracking, IQ, racism, and sexism provide an astonishing catalog of documentation that support Karier's contentions about the overall nature of the educational system.

Clarence Karier believes, along with John Dewey, that the conceptual material employed in writing history is that of the period in which the history is written. Ultimately, however, as the author admits, historical writing must pass the test of empirical creditability as well as that of social usefulness. It is in this area that the choice of documents for inclusion in the book becomes strategic. Certainly, the documents support the thesis of the author and, as they become more and more recent, their political implications make them more and more unacceptable as academic research. Herein lies the major problem with the book. This reviewer admits to a certain skepticism in any overview that projects a single reality governing American education—positive or negative—but one begins to long for some balance in the treatment of the problems. Academicians, like others, are the product of a
complex culture. Under conditions such as those predetermined by the format, the expert as advisor to those who wield power is at times required to choose either truth or power. Of the group who choose truth, as did Archibald Cox, we hear virtually nothing. In all fairness, Karier openly admits that the book is not intended to be definitive or cover the entire field of educational policy but, rather, was written from the limited perspective of present problems. Nevertheless, in the post-Watergate America, the book may remain more a statement of what went wrong in the 1970s than in the early twentieth century. Certainly present data supports his conclusions that the educational system was the life-system for the larger corporate liberal state which emerged during the Cold War as a massive militarized system and that the educational state served to supply trained manpower for production and consumption and, at the same time, keep large numbers of people off the labor market.

Clarence J. Karier is eminently qualified to address the role of education in America. His scholarship, along with that of Michael Katz, Samuel Bowles, and Herb Gintis, and others, has done much to illuminate the ways in which liberal educational notions have been undermined, particularly in urban areas. Like the Frontier Myth of the nineteenth century, the Educational Myth of progress and upward mobility in the twentieth century has simply failed to materialize. Addressing his book to nonalienated persons who can still question why things have not improved, Karier ultimately convinces the reader that his notions are significant in placing the educational state within the social, political, and economic realities of American history.


In 1971, Benjamin Bloom, a noted University of Chicago educator, wrote on mastery learning in the book by James Block of the same title. At that time, he paid little attention to the effect the student's past learning has on present learning. This point is one of the key assumptions of *Human Characteristics and School Learning*: that indeed the history of the learner is at the core of school learning. Such history for Bloom mainly consists of the cognitive behavior and the affective characteristics which a student brings to a new learning situation. These characteristics of the student are then coupled with the quality of instruction to not only predict but also to control the
outcomes of a learning situation. It is to the quality of instruction that mastery learning approaches pertain.

Mastery learning begins with the notion that most students can attain a high level of learning capability if instruction is approached systematically and sensitively, if students are helped when and where they have learning difficulties, if they are given sufficient time to achieve mastery, and if there is some clear criterion of what constitutes mastery.

Mastery learning strategies are presented as possibilities for altering the learner's history if that history has been negative. These few major variables explain much of the individual difference in school learning, and determine both the cognitive and affective outcomes of the learning process.

The strategies applied in the studies cited here include feedback of results to students at each step of the learning unit, and reteaching until mastery is reached before the students progress to the next level. Indeed, the studies illustrate that at course completion, the students in the experimental courses had both higher and more equal achievement levels.

Bloom's theory offers some distinct advantages over traditional instructional modes: more students succeed, more ultimately learn to use their study time more effectively, and attitudes toward learning tend to be more positive, as attitudes toward a subject are related to the student's perception of his or her adequacy in that subject.

However, practical problems that surround the theory are skirted here. Logistically, supplying tutors to students who need help, and then managing classes with students who may be in different places would be difficult in any school setting. A greater problem may arise in the application of the theory itself. The step-by-step mastery learning strategies necessitate a course or discipline which consists of sequentially learned units. This assumes a body of knowledge which can be logically divided into discrete units, units which must be learned in a certain order. That many courses are indeed arranged this way is apparent from the numerous studies quoted which covered a variety of subject matters. The theory may also apply to psychomotor skills, although such skills are not discussed. One must bear in mind, however, that some disciplines may not readily lend themselves to such organization.

In the case of material which can be best learned sequentially, Bloom's theory definitely merits consideration. His discussion of the cognitive and affective background of the individual and how that background affects present learning represents an important contribution to current educational thought.

Over the past decade, much attention has been focused on the learning needs and interests of adults. It has been increasingly realized that traditional programs and delivery systems of continuing education have served primarily those who were already well-served by other parts of the educational system. Reports on the populations to be served by these programs studied those already participating in continuing education programs. This "voluntarist fallacy" ignored those adults who did not participate, assuming that they had no interest in further education and training. During the past decade, two national surveys have helped to explode this fallacy and, in doing so, have set the groundwork for the planning of curricula and delivery systems to serve the needs of heretofore disenfranchised adults.

Planning Non-Traditional Programs analyzes the findings of the more recent of these surveys, conducted by Carp, Peterson, and Roelfs for The Commission on Non-Traditional Study, draws implications for the planning of college-level non-traditional programs, examines the state-of-the-art among the nation's two-year and four-year colleges and universities, and discusses problems of granting credit and gaining accreditation for non-traditional experiences and programs. It also deals with the potential and problems of video cassettes and cable television (CATV) and proposes the establishment of regional "Lifelong Learning Materials Service Centers."

While this volume raises many issues for college and university planners of non-traditional programs, it all but ignores other parts of the educational system which serve, and in many cases better serve, adults' needs. Of the eighty million adults whom the study classifies as "Would-Be-Learners," only 17 per cent want college credit and only one in five feels it important to be working toward a degree. First-choice learning interests of adults include general education for only 13 per cent of the weighted sample, while vocational subjects are ranked first by 43 per cent, hobbies and recreation by 13 per cent, and home and family living by 12 per cent.

For most four-year colleges and universities, only the general education component has traditionally been a part of their curriculum and, for the great majority of these institutions, "non-traditional" programs refer either to serving older students or developing new delivery systems and learning sites—not to the broadening of the curriculum. While two-year colleges, especially public community colleges, have done much to meet the needs and interests in vocational, recreational, and home-related subjects, so have public school systems, regional
vocational centers, and many community agencies; and many of the findings of the survey of adult needs, as well as other parts of this study, should be of interest and value to these non-collegiate organizations.

The discussions of the assessment of life experiences and non-traditional programs for academic credit and institutional accreditation are excellent in their examination of the historical traditions and the current inertia among college faculties and regional accrediting agencies in deviating from these traditions. But it must again be emphasized that while these issues are important to colleges, they are of concern only to that small proportion of adults who desire college credit and degrees, and of special concern to the smaller proportion of these adults who have been defrauded by various diploma mills. Of more direct concern would be an examination of the learning goals adults set for themselves and to what extent new programs can help them attain those goals.

Planning Non-Traditional Programs provides the college planner many useful insights into the state-of-the-art of non-traditional programs, an overview of adults' learning interests, and many helpful suggestions on overcoming some of the potential problems inherent in establishing new programs and expanding old ones. However, it provides less guidance to non-collegiate institutions which have in the past, and will probably in the future, continue to serve the great majority of adult learners.
shrinking government health professions scholarships and loans, state fund, and private donations. Detroit recently received a $70,000 grant from the American Fund for Dental Health; an additional $60,000 was contributed by the Robert Wood Johnston Foundation. In 1972 the University of California at San Francisco obtained a government grant of $212,473 from the Office of Health Manpower Opportunity in the Department of Health, Education, and Welfare. Now such opportunities are diminishing, and, for the most part, schools must fund programs for minority students from money normally available to them.

The recruiting methods of the eight dental schools which have increased their admission of black and other minority students appreciably may be used by other schools wishing to increase their minority enrollment. The problem of poorly qualified black applicants should decrease as quality education for blacks at all levels increases. Until blacks are prepared to compete for admission on the same basis as other groups, special programs to prepare them to enter professional schools should continue. Geographic restrictions on admission could also be relaxed for blacks, allowing the institution to recruit nationwide. Recruiting of minority dental students should also become easier as more minority members become dentists and act as role models.

THE ADMISSION OF WOMEN

Until very recently, the percentage of women in dentistry had not changed much in the last 50 years. In 1920, 3 per cent of the nation's dentists were women, and in 1970, that percentage had risen only to 3.5. Unlike minority students, women present no problem of inadequate academic preparation. Other reasons are frequently given for women's rejection of dentistry as a career: they have few models, they feel dentistry is a male profession, it seems incompatible with marriage and a family, it seems unfeminine. Finally, dental schools have simply not recruited women. Now, however, recruiting of women for dentistry is on the increase in the United States. It takes forms similar to recruitment of other students: female students and faculty participate at career days in high schools and colleges, high school students and advisors see films of women in dentistry, and dental schools hold workshops for advisors from women's colleges. There is some evidence that this recruiting effort has been successful. In 1974 almost 1200 applications to
dental schools came from women, though this represents only 8 percent of the total number of applications received in the country. (30) Nearly 15 percent of the entering freshman class at the University of Louisville in 1975, 13 out of 88, were women. Future efforts to recruit women to dentistry center around changing the attitudes of faculty and students toward women dental students and the alteration of physical facilities to eliminate the all-male environment present in most institutions.

Since women applicants to dental schools are generally academically prepared and since admission problems center around breaking down barriers to a traditionally male profession, increased admission of women to dental schools seems to be proceeding more rapidly than among other minorities. Steps to remove the barriers by education and by changes in policy such as that which allows a woman student maternity leave have been quite successful. Within a few years, women will probably compete for admission on the same basis as men. Data indicating what use women make of their dental education may shape admission policies with respect to this group in the future.

In conclusion, it seems obvious that administrators of dental schools, including admissions officers, should continue to work with organizations such as the A.D.A.’s Council on Dental Education and the American Association of Dental Schools toward the solution of admissions problems. This cooperation has resulted in some very successful efforts, including the use of the Dental Admission Testing Program, the publishing of the “Admission Requirements of American Dental Schools” and the development of the “American Association of Dental Schools Application Service” through which an applicant may apply to several schools at once. Administrators use data compiled by the A.A.D.S. and the A.D.A. in seeking funds as well as in the shaping of admissions and other school policies. A section on dental admissions has been added to the A.A.D.S., which now sponsors an annual conference of dental admissions officers.

The methods of dental care delivery are in a state of flux. Federal government involvement in dental education is increasing. Minority groups are demanding more recognition. Admission policies will change as these and other influencing factors change. Carefully gathered data, precise methods of measurement, an annual conference of dental admission officers, and a spirit of cooperation among those most directly involved is necessary to allow a better exchange
of ideas, to facilitate solutions to problems, and to permit those concerned to anticipate and react to change.

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Distributed Data Entry: An Alternative to On-Line

A. Frederick Seaman

If you have been looking for a method of controlling your own information as it flows into an automated computer system, but your installation is not large enough to support on-line access to your data, or if money is too scarce to permit the development of an on-line system, then what we are about to describe may be of interest to you. The University of Virginia has, for the past two years, been developing an integrated Student Information System to provide services for admissions, student records, financial aid, student accounts, housing and institutional analysis. Although the University is not a multi-campus institution, it is a highly decentralized one where each of nine schools enjoys a great deal of autonomy. This de-centralized environment is one of the key factors which led to the adoption of the philosophy of distributed data entry.

Wherever information is entering the automated files, the responsibility for editing, entering, and auditing the accuracy of the information is pushed out as near to the originator or proprietor of that information as possible. The major reasons for this approach are:

1) The user has the greatest interest in the accuracy and integrity of his information.

2) The user can make judgment decisions when questions arise that a remote data entry technician can not make.

3) The user can retain control of his source documents.

4) The user can edit and audit information before and after it is processed by the computer.

5) The data entry load is distributed over all major users so that each shares a little of the burden and each can control his own rate of flow.
It is recognized that it is highly advantageous to maintain a centralized clearing house or information conduit as a monitoring station. For any system so diversified to function in a smooth and coordinated manner there must be one location where quality can be monitored and where operations can be scheduled and controlled. The approach to this control problem will be described later.

Since our data generating offices vary greatly in size and complexity, our systems design needed to be flexible enough to accommodate different demands for service within the constraint of limited ability to pay. The data entry methods we investigated were:

1) On-line;
2) Key punch or key disk;
3) Terminal hookup to mini-computer; and
4) Magnetic Tape Selectric Typewriter (MT/ST).

We were constrained, somewhat, in our design options because our computer operating system was not set up to support on-line processing and the funding required to do so did not appear readily available. But, as we looked around our institution, we were surprised to find a considerable number of automatic typewriters of the MT/ST variety already installed and performing secretarial functions. It occurred to us that there might be a way to utilize this equipment for data entry functions as well.

**WHY MT/ST**

For those of you who are not familiar with this device, the Magnetic Tape Selectric Typewriter (MT/ST) is manufactured by the Office Products Division of IBM. It is a standard selectric typewriter which has been connected to a control unit which allows you to record onto and play back from tape cartridges. In the office environment, this machine is widely used to type form letters and to facilitate manuscript preparation and text editing. It is a very rudimentary Word Processing device.

We discovered, however, that it is possible to read the tape cartridges created by an MT/ST into a converter and produce a magnetic tape which can be read by a computer. From this insight has developed the data collection concept currently being used in many offices at the University of Virginia.

The attributes of the MT/ST system that convinced us of its
worth in our environment are:

1) The MT/ST is a fairly common secretarial tool. We had many of them already in place in offices with people who knew how to operate them. Therefore, in most cases, we did not have to ask our user offices to make an investment in specialized data entry equipment or personnel.

2) We could retain the autonomy of our user offices while keeping them in full control of their data. They need not rely on a disinterested central data entry service.

3) The MT/ST can readily serve a dual function as an automatic typewriter when it is not in use as a data entry station.

4) With the MT/ST operating in an off-line mode, the users can operate on their optimum schedule without worrying about either scheduling access to the computer or about computer down time.

5) We could retain accurate batch control for auditing of records using MT/ST processing.

6) The MT/ST provides instant hard copy for office reference and audit trail. This is important because the user can edit and correct data before it is entered into the computer files. Also, they have a hard copy record of what they did, which is created as the operator types the data.

7) The MT/ST system is flexible in that offices and applications can be added to the network with no impact on the main computer system.

8) We found that the MT/ST could be "programmed" to provide the operator with some of the desirable features of on-line terminals such as operator prompting and automatic form positioning.

9) We found that with overnight turnaround, we were able to satisfy most demands for information using paper reports or microfiche. While we recognize the value of on-line accessibility in some cases, the MT/ST system appears to be a viable alternative for volume data entry circumstances.

HOW IT WORKS PROCEDURALLY

Figure 1 shows how information is collected in a user office and how it flows to the computer system and back to the user office. The precise method of formatting information to be collected depends
on the application and the way the main computer programming is set up to accept the information.

In general, the steps are as follows:

1) The operator sits at the MT/ST with a batch of source documents and types information on a form while recording the same information on a tape cartridge.

2) Control characters are inserted in the data stream to delineate data fields or new records.

3) When all source documents are processed, the tape is "closed out" and removed from the machine.

4) The tapes are sent to a central location to be converted to a 9-track tape which can be read by a computer. At the University of Virginia, we have established, in the Office of the University Registrar, a functional unit called the Student Information System Control Center. This unit has responsibility for receiving and controlling all input from all system users. This unit also converts the data, schedules it into the file maintenance stream, checks the successful updating of the files, and distributes the output reports and source cartridges back to the satellite user offices. This flow of information is shown in Figure 2.
5) The source documents and the data entry hardcopy records are kept by the user office and filed for reference and audit control.

As we mentioned earlier, the MT/ST can also be “programmed” by setting up a “control tape” which contains certain fixed control information such as data element descriptors, data element num-
bers, or carriage control characters for automatic form positioning and registering. This feature permits the design of more complex applications which require features such as operator prompting. In our admissions application, for example, we use a data entry form (See Exhibit 1) which contains all the elements of data that must be collected by a particular admissions office from each application. The “control tape” positions the form and types the element number for the data item to be entered. The machine then stops and allows the operator to enter the required data before advancing to the next element. (This particular form is constructed so as to create its own file identification label when placed in a file folder.)

HOW IT WORKS TECHNICALLY

The machine in widest use in our installation is the MT/ST model IV. This unit has two tape stations and can therefore be used in a “programmed” mode.

When the unit is in the recording mode, whatever is typed on the keyboard (including carriage control functions) is recorded on the selected tape. It is also possible to transfer data from one tape to another, to print this data at the same time, and to allow the operator to insert data on to the output tape. It is this feature that allows us to “program” the MT/ST.

The correction process is very simple. The operator simply backspaces and retypes. Under these circumstances the tape is physically backed up and written over. This eliminates the need for a backspace editing routine in the main computer system.

Once the tape has been created, it must be fed to a front end input editor in the main computer. This can be accomplished in two ways. First, IBM has a device called a 2495 Tape Cartridge Reader which can be hung on as a peripheral input device and which behaves like a card reader. Tapes can be stacked in this device and automatically read, one after another. The second method (and the one we are using) is to go through a tape to tape copy process using an NCS (National Computer System) Inscriber/Pooler. We are using this process for two reasons. First, we already had an Inscriber/Pooler as part of a separate installation at the University. Second, the copy operation could be done off-line and

1A monograph on the details of “control tape” creation is available from the author.
the output tape (which is 9-track, 800 bpi) could then be read into the main computer at tape speed rather than at card speed. There are two programming requirements needed to implement this type of data entry technique. Neither of them is a difficult task. First, it is necessary to convert the MT/ST character set from its native code structure to EBCDIC or the native code structure of the
main computer. Second, a front end program is needed to take the input data stream from the MT/ST and convert it to transactions or records which can be processed by the main computer system maintenance program. Once the data have been properly formatted the rest of the system can function in the normal manner.

We have been using this technique for almost two years and we have been satisfied with the accuracy of the data and with the user response to the system. Those users who are doing their own data entry have shown a much greater interest in the quality of the information than they did when they had no active part in the process of entering and correcting data.

SUMMARY

The University of Virginia has developed a technique for using the IBM Magnetic Tape Selectric Typewriter (MT/ST) as a data entry station. This technique was developed as part of a new Student Information System being implemented at the university. MT/ST’s are currently being used as data entry stations in the admissions offices and in the Student Information System Control Center.

The salient characteristics of the technique are:

As the information is typed onto a pre-printed source document, it is also captured on the tape cartridge.

The tape cartridges are converted to 9-track tape through a pooling process on an off-line National Computing System (NCS) Inscriber/Pooler (they could also be read directly by the IBM 2495 Tape Cartridge Reader).

The data is then fed to a data base maintenance routine in a batch mode.

A turn-around report is produced to show the completion of the maintenance cycle.

The major advantages of the technique are:

The proprietor of the information has control over its interpretation and entry into the computer files.

The data entry document is instant hard copy as well as an audit trail.

There is full error editing and correction ability in the user office before the data is transmitted to the computer.
The source documents do not leave the user's control. Transcription of data to a data entry form to be processed outside of the user area is not necessary. The MT/ST is a multi-purpose device which can serve a secretarial function when it is not being used as a data entry station. Specially trained personnel are not required. A qualified typist can be easily cross-trained as a data entry operator. The installation is much less costly in both hardware and software support than an on-line application. The installation is totally independent of the computer system in terms of need for on-line accessibility. The system allows for full batch control. The MT/ST can be "programmed" to provide operator prompting and automatic forms positioning.
Operationalizing Institutional Goals through College Admissions Policy

CLIFFORD E. LUNNEBORG, CARL M. DICKINSON and PATRICIA W. LUNNEBORG

ABSTRACT

The need for colleges to make explicit their institutional goals when formulating admissions policy is demonstrated using data for first year and transfer students to the University of Washington. By considering alternative definitions of student success, each derived from a different educational philosophy, quite different mixes of these two groups of entrants result. In general, criteria which emphasize quality of performance are biased in favor of the first year applicant, while criteria more related to program completion would not change the proportions of these groups currently admitted.

MENACKER (1975) HAS pointed out the continuing need for college admissions policies to reflect institutional goals. All too often official statements of admissions policy are extremely vague referring to such desiderata as “fairness,” “admitting the most qualified,” “making the best use of institutional resources,” and “meeting the educational needs of different kinds of applicants.” Naturally, when an institution must accept essentially everyone who applies to maintain solvency, survival supersedes even these ambiguous goals. But in the happier situation where applicants outnumber the desired or permissible number of new students, other goals do come into play either explicitly or implicitly. These goals nearly always embrace the two principles of equity between equally qualified applicants and of priority to those most likely to be successful in the institution. Both of these goals are reflected, for example, in the guidelines for improving articulation between junior and senior colleges framed jointly by associations representing these two groups (see Menacker, pp. 72-74).

Equity and success, however, can have many different meanings and it is only through operational admissions practices that a particular institution’s goals are really clarified. The purpose of the
present paper is to show how different definitions of equity and success in the admission of first year and transfer students reveal different philosophies of higher education. Secondly, student performance data will be used to illustrate the impact of the different definitions of success upon the numbers of first year and advanced students who would be admitted.

Consider first equity. If an institution wishes to emphasize upper or lower division enrollment, it typically realizes this goal through establishing separate quotas for accepting new students depending on whether they are first year or advanced. The principle of equity then is applied separately to these two groups, i.e., within each pool equally qualified applicants are treated alike. The question of whether a first year applicant is more or less well qualified than a transfer applicant does not have to be addressed. If, however, an institution has the goal of selecting the best qualified applicants regardless of level of prior education (not the goal of emphasizing one or another segment of enrollment), the principle of equity should be applied uniformly. Some way must be found for saying that a given high school graduate is as well qualified as a given transfer applicant.

The University of Washington (UW) is currently giving thought to changing admissions policy to reflect the primary goal of educating those who are best qualified regardless of the level at which they seek entry (Emery, 1976). This implies that enrollments in the two divisions may well shift depending on the applicant pool. The problem delineated above thus becomes real. How can we in fact say that a high school applicant is equal to a transfer student? The intervening collegiate experience of the transfer makes that student unlike the high school graduate. But while the two may not start out alike, they may be equal on the basis of their subsequent university achievement. Thus, if the two are equally likely to be successful at the University, they are equally qualified applicants.

This brings us to the second consideration—what definition of success to adopt. Again, what is the primary institutional goal to be realized through this definition? At least four institutional goals are identifiable in the literature. Each has a definition of success associated with it which can be used as an admissions criterion.

(1) Maximum number of graduates. Students should be selected on the basis of probability of graduation within an appropriate time period.
(2) **Academic excellence of students.** Students should be selected on the basis of predicted cumulative grade point average.

(3) **Full utilization of educational resources.** Students should be selected on the basis of expected rate at which credits are accumulated.

(4) **Academic excellence combined with rapid progress.** Here the criterion is a combination of 2 and 3 above.

Now the question is, just how would each of these institutional goals when implemented affect the present mix of first year and transfer entrants? As implied earlier, UW applies the principle of equity separately within the two groups of first year and transfer students. The separate quotas imposed reflect a long-term commitment to the needs of upper-division students who start their collegiate work elsewhere. Within the first year group the definition of success has been explicitly academic excellence, i.e., predicted GPA based on high school record and test scores. With the transfer group the definition has been implicitly maximum number of graduates, i.e., transfers were preferred who had completed two full years of previous college training.

**ILLUSTRATIVE STUDY**

Academic records through Spring 1975 were used for students who entered UW as freshmen Fall 1970, sophomores Fall 1971, juniors Fall 1972, and as seniors Fall 1973. Thus, effectively five years of possible college attendance were surveyed for each student. Included were 2,571 who entered directly from high school (HS) Fall 1970, 482 who transferred from a community college, and 371 who transferred from another four-year institution. The average number of transfer credits was 89 for the community college sample and 87 for the four-year sample.

Success predictions for freshmen were based upon an Admissions Index (AI) which weights HS grade point average (GPA) and the verbal and quantitative composite scores from a pre-college aptitude/achievement test battery. Success predictions for transfers were based on the transfer GPA (TR GPA).

Success criteria were based upon three elements to the academic record: (1) cumulative UW GPA through Spring 1975 or last quarter in attendance (CUM GPA), (2) number of UW credits earned through Spring 1975 (CRED), and (3) degree awarded by
Spring 1975 (GRAD). The institutional goal of maximum number of graduates was thus measured by GRAD and the goal of academic excellence of students by CUM GPA. The goal of full utilization of educational resources was measured by a criterion which was the ratio of CRED to the difference between 180 and the number of transfer credits (CRED RATE). It corresponded then to the fraction of remaining credits needed to graduate subsequently earned. The fourth institutional goal, academic excellence combined with rapid progress, was measured by the following ratio:

$$\text{COMB} = \frac{(\text{CUM GPA}) \times (\text{CRED})}{(4.0)(180 - \text{TR CRED})}.$$  

The numerator expresses the number of grade points actually earned while the denominator equals the maximum number of grade points which could be earned. (In computing these last two criterion measures, CRED RATE and COMB, CRED was reduced so that the sum of CRED and TR CRED never exceeded 180.)

Predictors and criteria were correlated producing the results in Table I. The most predictable criterion of college success in these samples is clearly CUM GPA. The poor showing of CRED RATE is primarily due to the restricted range of TR CRED among transfers from both sources. Had transfers not been preferred with two full years of college work, CRED RATE might have been a more predictable criterion.

### TABLE I

<table>
<thead>
<tr>
<th>Predictor</th>
<th>GRAD</th>
<th>CUM GPA</th>
<th>CRED RATE</th>
<th>COMB</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school AI</td>
<td>22</td>
<td>47</td>
<td>22</td>
<td>34</td>
</tr>
<tr>
<td>Community college</td>
<td>19</td>
<td>52</td>
<td>07</td>
<td>17</td>
</tr>
<tr>
<td>TR GPA</td>
<td>08</td>
<td>49</td>
<td>11</td>
<td>25</td>
</tr>
</tbody>
</table>

Using the predictor-criterion correlations of Table I together with the means and standard deviations for these measures in each of the three groups, regression equations were developed to predict the four success criteria. Table II presents predicted values for two of the criteria, predicted CUM GPA and probability of GRAD. The entries in Table II should be read as follows: a HS AI score
of 70, a community college TR GPA of 3.1, and a four-year college TR GPA of 2.6, all predict the same CUM GPA, 2.8. Similarly, a HS AI score of 79, a community college TR GPA of 3.0, and a four-year college TR GPA of 2.0, all have the same probability of graduation, .60.

<table>
<thead>
<tr>
<th>Predicted CUM GPA</th>
<th>High school AI</th>
<th>Community college TR GPA</th>
<th>Four-year college TR GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6</td>
<td>92</td>
<td>4.0</td>
<td>3.9</td>
</tr>
<tr>
<td>3.5</td>
<td>89</td>
<td>3.8</td>
<td>3.7</td>
</tr>
<tr>
<td>3.4</td>
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<td>3.2</td>
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<td>2.2</td>
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<td></td>
</tr>
<tr>
<td>2.0</td>
<td>47</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>

The importance of Table II can be seen particularly by comparing the high school and community college groups under the two criteria. Remember that the equity principle stated that applicants who are equally likely to be successful at the University are equally qualified applicants. Thus, if the success criterion were CUM GPA, a community college transfer would need a GPA of 3.0 to compete with a high school graduate who had an AI of 67. If the success criterion were probability of graduation, however, the community college applicant would need only a 2.2 to compete with a HS AI of 67. A choice between these two criteria would
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