Past an current developments in academic program review and future prospects are considered, along with seven myths about the adoption and use of program review in higher education. Antecedents of program review include: the development of specialized study programs, the emergence of regional and specialized accreditations and efforts to assess program quality, and the development of improved evaluation techniques. A shift has occurred from reviews primarily undertaken as self-assessment of a program by its faculty to a largely external evaluation for the purpose of institution-wide decision-making concerning planning priorities and budgeting. The demand for accountability requires that the evaluations be undertaken through an objective process. Six outstanding characteristics of program review today are as follows: the use of reviews is widespread; it has become more comprehensive; it is more systematic and formal; its purpose has shifted from formative to summative; it is being more closely tied to other decision-making processes; and attitudes about program review are changing. Myths include: accredited programs do not need review; identifying evaluation criteria is the most difficult step; and program review is synonymous with program discontinuance. A list of 38 reference sources concludes the report. (SW)
A PERSPECTIVE ON THE ANTECEDENTS, PRESENT STATUS, AND FUTURE DEVELOPMENTS OF ACADEMIC PROGRAM REVIEW IN HIGHER EDUCATION

by

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INTRODUCTION

Higher Education in the United States has evolved from a collection of basically private institutions serving essentially a local need and a somewhat elite clientele to a system of mass education serving a cross section of the population and addressing local, state, national, and even international needs. Along with this expansion in size and breadth of activities, colleges and universities have become complex organizations. The administration of such complex organizations has required the adoption and development of specialized approaches to management that fit the unique mission, goals, and environment of an academic institution. One such approach is a type of evaluation known in higher education as "program review." This paper attempts to describe: (1) the development of program review in American higher education; (2) the present status of program review; and (3) to comment on probable future developments.

For the purposes of this paper, program review is defined as a specialized type of evaluation focusing on the evaluation of existing academic programs in American higher education. A "program" is defined as a sequence of courses of instruction leading to a degree.

The paper begins with a description of the antecedents of program review, then provides an overview of its present status and concludes with some comment on its future.
It would be convenient if one could simply report that program review was invented in 1837 by Jeremiah P. Review, Professor of Higher Education at Harvard College, while working alone one evening in his Cambridge laboratory. Unfortunately, program review did not evolve in a single, easily identifiable beginning, nor does its beginning appear to have been the exclusive province of a single individual. Instead, the antecedents of program review have been many and varied, with each providing differential contributions to what we today call "program review."

The "roots" of program review go deep into the history of American higher education and are intermingled with major events in the development of higher education itself. Consequently, the antecedents described below are divided into five sections, each centered around a major development in U.S. higher education, namely, the development of (1) the concept of a "program"; (2) the emergence of the accreditation movement; (3) the emergence of the profession of educational evaluation; (4) the rise of the accountability movement; and (5) the development of sophisticated approaches to the management of higher education. Each of these developments in higher education provided the needed impetus for a simultaneous advancement in the development of program review.

**Development of Programs.** When Henry Dunster set up the first course of study of the first English-American college, it resembled the academic program of Dunster's alma mater, Cambridge, as it existed in the early seventeenth century. It consisted of the hallowed "trivium" and "quadrivium" of classical antiquity. The central core of this kind of curriculum was the classical languages and literatures, as well as such subjects as Aramaic, Syriac, Hebrew,
ethics, politics, physics, mathematics, botany, and divinity. This same basic type of classical curriculum remained in effect throughout the Colonial period. By 1765, however, the emphasis had shifted toward more attention to mathematics, natural sciences, English languages, and literature, with some modern foreign language instruction. This basic course of study was the only program offered leading to the Bachelor's degree for most early American colleges until the mid 1800s.

Program reviews, or evaluations, of these "programs," to the extent that they existed at all, covered the entire breadth of the college curriculum. The primary type of evaluation was, in modern evaluative terminology, "outcome oriented," since evaluations of the quality of instruction centered on the degree of proficiency in the classical subjects demonstrated by the students. This proficiency in turn was related directly to the faculty reward system, since a tutor's future often depended upon how well the instruction provided by the tutor resulted in students' demonstrated proficiency in the subjects covered. The job of the tutors was a difficult one and largely unrewarding, except to the degree that recognition of a good tutor led to employment in the ministry or some other permanent position.

The curricular reform movement of the nineteenth century provided a new meaning to academic programs and perhaps the first important antecedent to program review. It evolved around the development of the "elective" system. An early version of this system was embodied in the "Virginia plan" advanced by Thomas Jefferson. In it, the student was to have complete freedom of choice in choosing lectures between the offerings of the proposed University of Virginia's separate and distinct "schools." Once a student had chosen a field of specialization, no electives were permitted within a school, according to

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Brubacher and Rudy (p. 101). The success of the elective principle resulted in a broadening and expansion of the American college curriculum. According to Brubacher and Rudy, this eventually led to (1) the acceptance of a philosophy of the importance of all subjects; (2) the rise of scientific and utilitarian courses; (3) the development of subject matter specialization, with the attendant departmentalization of the curriculum; and (4) the seemingly endless proliferation of courses. The latter two aspects were also partly stimulated by the returning German-trained professors, who came to dominate many college faculties by the turn of the century. These professors frequently sought to carve out a domain for their own fields of specialization.

This "specialization" was combined with an increasing preoccupation of the students with the utilitarian value of higher education to establish permanently the concept of "academic programs." Just as the "lecture" replaced recitation as the primary method of instruction, a variety of programs had replaced the rigid classical curriculum. With the emergence of distinct programs of study, it theoretically became possible to have "program" review. Practically, however, the "review" aspect had still not yet matured.

Beginning in the latter half of the 1800s, new forms of student assessment began to appear as a replacement of the Colonial pattern, where the student was essentially ungraded and unexamined. As Rudolph noted, "at the high-water mark of the classical college, grading and examining were poisoned by the recitation system and made somewhat ridiculous by the extent to which public oral examinations were gestures in public relations and therefore not designed to show up student deficiencies." New forms of student evaluation eventually replaced the oral examinations with efforts at more precise measurement of proficiency. Harvard, for example, introduced the "blue book" for students to write course
exams to be graded by their instructors. The development of program evaluation, however, awaited still other historical developments.

The Development of Accreditation. One of the first forms of programmatic evaluation emerged from the institutions themselves — an expression of concern over the absence of common standards and practices among all the new programs. Out of a meeting of the National Association of State Universities in Williamstown, Massachusetts, in 1906, accreditation emerged as a national phenomenon. The attendees, representatives of the four existing regional associations and the six-year-old College Entrance Examination Board, agreed to:

* Recommend that the regional associations have their member colleges accept certificates from accredited schools in other regions;
* Encourage the regional associations not yet doing so to organize "a college entrance certificate board or commission" for accrediting schools;
* Propose the development of common definitions and standards; and
* Establish a permanent commission "for the purpose of considering, from time to time, entrance requirements and matters of mutual interest to colleges and preparatory schools."

This meeting was followed by a number of other meetings that resulted in recommended definitions (including the so-called Carnegie Unit), the admission testing program of the College Entrance Examination Board, and the nationalizing of accreditation (first for the secondary level and later for colleges and universities). Later in 1904, the Council on Medical Education of the American Medical Association established the first specialized or program accreditation. These developments had a profound change on American higher education, as Young, et al, have written:

... a radically new concept suddenly appeared on the scene, was adopted and put into operation by colleges and universities in a
large area of the country, gained the attention of a major professional organization, and received the blessing and support of the leaders in the higher education community, an important foundation, and a key federal agency.8

In the last seventy years or so, a number of important changes have occurred in accreditation which have, at least indirectly, contributed to the development of concepts related to program review. These changes include the following:

* From a quantitative approach (expressed in specific requirements) to a qualitative approach (based on more general standards);

* From an emphasis on making institutions more alike to recognizing and encouraging institutional individuality;

* From a system heavily dependent on external review to a system based more on self-evaluation and self-regulation; and

* From an initial focus on judging an institution to a primary goal of encouraging and assisting an institution to improve its educational quality.9

The precise contribution of these developments to the emergence of program review is not easily traced. Some general relationships can be identified. The improvement of evaluative techniques, the general approach of having a self-study followed by visits of peers, the development of specialized and programmatic accreditation, the development of criteria to judge programs, the shift from quantitative to qualitative emphases have all had an impact on the way that program reviews have been conducted in many colleges and universities. More recently, some accreditation bodies, such as the Southern Association, have actually taken steps to encourage institutions to conduct program review as a part of an effort to improve program quality. It appears, then, that the role of accreditation in the development of program review has been that of indirectly providing a related experience in program evaluation.
the development of techniques for evaluation, and, in some instances, the actual encouragement of the program review itself.

**Emergence of the Profession of Evaluation.** While examples of early forms of evaluation go deep into the history of education, such as the oral examinations given the students in Colonial days mentioned earlier, the development of the field of evaluation is much more recent.

Evaluation as a profession grew as a result of various pressures, both internal and external. Often the impetus for evaluation came from outside academe, as was partly the case in the 1800s when the Massachusetts government proposed evaluation criteria in response to concerns about the vitality of Harvard's program.\(^\text{10}\) Evaluation also grew as a reaction to many earlier evaluation techniques which concentrated on inputs and as a result of studies of curricula and education itself. Evaluative pioneers, such as E. L. Thorndike, who performed early examples of materials evaluation by analyzing the adequacy of arithmetic textbooks; G. Stanley Hall, who developed the use of questionnaires and formative evaluation; and Ralph Tyler, who advocated a much broader range of student assessment and the development of cognitive variables, affective variables, and goals and objectives all made important contributions to the early development of the profession of evaluation.

Early formal evaluations of academic programs are hard to find, as Popham has written:

Educational historians who set out to recap the frequency with which formal educational evaluations have been conducted prior to the midpoint of this century are destined to do more hunting than finding. But starting around the 1950s, at least in the United States, developments occurred that led to a burgeoning interest in educational evaluation.\(^\text{11}\)

The events that Popham refers to, however, occurred first with respect to elementary and secondary education and not higher education, although there
were indirect implications for higher education. These events included public dissatisfaction with the quality of public education, the infusion of federal dollars and concommitant requirements for evaluation, the shrinking financial support from local property taxes, the school consolidation movement, and attempts of educational improvement following the Soviet introduction of Sputnik. The public and its elected representatives sought evidence that public elementary and secondary education was doing a good job. They were, in effect, demanding that educational programs be evaluated.

The field of program evaluation began to emerge slowly out of these various cries for greater accountability and improvement in education. As is typical of new academic fields, the initial contributions to the profession were made by persons trained in other related fields. Two landmark publications were prepared by Michael Scriven, a philosopher, and R. E. Stake, a psychometrician, in 1967. Eventually, the field of educational evaluation developed a literature of its own which chronicled a series of new developments, such as: Adversary Model, Criterion-Referenced Measurement, Decision-Making Typology, Discrepancy Evaluation, Formative Evaluation, Goal-Free Evaluation, Item Sampling, Medical Model of Evaluation, Path Analysis, Secondary Evaluation, Summative Evaluation, Trait-Treatment Interaction, Transactional Evaluation, and Unobtrusive Measures.

In time, circumstances similar to those that had earlier occurred in elementary and secondary education took place with respect to higher education; and the new field of program evaluation began to be applied sporadically to academe. Many in higher education applauded and even helped conduct the evaluations in the public schools, but were not as enthusiastic about being evaluated themselves. These reactions were even stronger with regard to
degree program evaluation than the evaluation of other types of programs and special projects. The proponents of evaluation have grown over the years. Paul Dressel, for example, chided the academy with this statement:

The supporters of higher education must come to realize that even with the adaptation of new procedures, the increasing number of students and the increasing range of educational opportunity demanded will necessitate ever-increasing investment in higher education. The resolution of these issues is not likely to become evident so long as the discussion is marked by platitudes, criticisms, and recriminations. What is needed is a research and evaluatory approach to the solution of the problems which we face.16

Evaluation has evolved as a profession with its own heroes, terminology, literature, and folklore. As Popham's quote below indicates, it also enjoys a great deal of popularity:

Although perhaps not as widely sought as peace, and not as revered as motherhood, educational evaluation is beginning to be given the same kind of unthinking adulation as these socially esteemed virtues.17

**Accountability in Higher Education.** The dramatic growth in higher education from the 1950s to the 1970s caused many to begin to question the quality of programs. The influx of federal and state dollars was often accompanied by evaluation requirements, such as the federal requirements for the annual evaluation of vocational education programs in community colleges and technical institutes. A number of state executives and legislators became particularly frustrated over what they saw as uncontrolled growth, conflicting demands, and the increasing costs of providing mass higher education. One solution sought in a number of states was the creation of statewide boards.

Beginning in the early 1900s a number of states established consolidated governing boards. These included Iowa (1909), Mississippi (1910), Idaho (1912), Kansas (1913), Oregon (1929), Georgia (1931), and Arizona (1945). In the latter half of the 1930s and in the 1960s a number of states adopted coordinating boards for higher education. By the 1970s these boards were
joined by o merged with the so-called "1202" commissions that were mandated as a condition for accepting certain federal higher education funds.18 Often the boards were created to increase accountability and provide a rational approach to planning higher education.

Howard Bowen has noted that:

The idea of accountability is closely related to such concepts as program budgeting, cost-benefit effectiveness, and social indicators. It is the expression of a wish . . . felt by many public officials, donors, and the general public, as well . . . that the increasing sums laid out for public services ought to be justified by reliable estimates of the outcomes. It reflects, in part, a failure of confidence in many of our institutions and, in part, frustration over rapidly increasing costs.19

Statewide coordinating and governing boards generally have been given four specific types of responsibilities for carrying out their role: (1) planning; (2) budgeting; (3) program review and approval; and (4) policy analysis.20 All of these responsibilities had a relationship to program evaluation either directly or indirectly. Planning required the assessment of programmatic strengths and weaknesses, the programs were often a budgetary unit of analysis, and policy analysis frequently centered on programmatic issues. The new statewide coordinating and governing boards frequently began to either require internal reviews or undertook external evaluations of their own.21

Statewide boards are just one of many external groups that evaluate universities. Brown has identified thirteen other external groups that also provide some form of external evaluation.22 Many of these groups are also focusing in on programmatic concerns, but statewide boards and accreditation groups probably have had the greatest external impact on academic programs.

Scientific Management. The growth and complexity and the calls for greater accountability in higher education also contributed to major developments in its administration.23 More and more, even the word "administration"
itself began to be replaced by "management" terminology adopted from government, business, and industry. The Ford Foundation, for example, funded a series of "management studies" in higher education. Many outside of academe who felt colleges and universities should be more "businesslike."

One highly heralded approach was the attempt to implement Planning, Programming, and Budgeting Systems (PPBS), a special type of systems analysis, in college and university management. This planning approach was adopted from similar approaches in business and government where its use appeared, at least to some persons, to contribute to more effective management resources.

In a PPBS approach, the university and its environment are considered to form a system. According to this approach, each activity or program is considered not only by itself, but also in relation to all the other activities that make up a given university. The steps involved in establishing a PPBS system are closely related to program review and consist of:

1. Establishing goals and objectives;
2. Developing alternate programs that will accomplish the same goals;
3. Estimating resource requirements for each alternative;
4. Estimating benefits to be gained from each program alternative;
5. Developing an operating plan by selecting from among alternatives;
6. Testing the long-range fiscal implication of the plan;
7. Computing the annual budget;
8. Evaluating the success of the program -- whether a program as perceived accomplished its goals;
9. Revising planning standards; and
10. Repeating the cycle.
The PPBS approach required the adoption of highly analytic techniques in the assessment of all programs, such as "Cost-Benefit-Analysis," which one proponent described as follows:

Programs should be evaluated...on the basis of their contribution to the attainment of the institution's goals. The maximum value should be obtained for the resources expended. Therefore, the problem confronting the administrators is to find the best way to evaluate programs in light of goals so that the benefit of available resources is optimized. There is such a way--namely, Cost-Benefit-Analysis. CBA is a systematic means for evaluating any set of alternative programs. It involves inventorying the costs of a program and the benefits of a program and comparing the net benefit of alternative programs on an objective basis.

PPBS is but one example of the growth in scientific approaches to college and university management. It has not been a highly successful management tool in academe because of its having reliance on data, cost-benefit-analysis, and other techniques which are difficult to undertake. In terms of this discussion, PPBS and other types of systems analysis have contributed to the sophistication of programs reviewed and provided the groundwork for linking program review with other decision-making processes in colleges and universities.

Summary of Antecedents. The antecedents of program review have been many and varied, including the development of specialized programs of study, the emergence of regional and specialized accreditation and its efforts to assess the quality of programs, and the development of improved evaluation techniques stemming from emergence of the profession of evaluation. Many of these developments grew out of demands for greater accountability and concerns associated with the growth and complexity of higher education, sometimes resulting in the adoption of scientific management approaches to the administration of higher education. All of the factors combined over time to produce a new type of evaluation referred to as "program review."

Program review's initial appearance came at two different ends of the higher education spectrum--the vocational programs in the two-year institu-
tions and in the graduate, primarily doctoral, programs in the universities. The former, primarily due to the federal requirement that accompanied vocational education funds and the latter, in part to a concern about the quality of the programs due to their costs, prominence in the educational hierarchy, and their proliferation in numbers. This does not mean that there weren't program reviews taking place with respect to other degree levels, but that the major activities and the more systematic and formal efforts began with these two levels.

Eventually, the techniques of program review were adopted for use at all degree levels as the need to be accountable and the desire for assurances of quality became widespread. Beginning in the 1960s, many of the newly developed statewide coordinating boards for higher education were created with the responsibility to approve new programs and review existing ones. Like universities, the initial focus of other reviews was on the higher cost doctoral programs. Later, the techniques adopted for the doctoral programs were modified for use with other program levels.

By the late 1970s the "typical" internal program review consisted of a self-study conducted by the program under review by its faculty and an assessment of the program by the program faculty or by peers of the program faculty. The latter was more likely in those instances where the reviews were a part of a larger institution-wide effort.

Significant changes have occurred in the last decade in the nature and purpose of many reviews. The most important is probably the shift from reviews that were primarily undertaken as self-assessment of a program by its faculty for the purpose of improving it to a largely external evaluation undertaken by persons outside of the unit under review for the purpose of institution-wide
decision making concerning planning priorities and resource allocation (or, in evaluation jargon, from formative-type evaluations to summative evaluations). The demand for accountability requires that the evaluations be undertaken in a process that is objective -- no longer is it acceptable for the hen to guard the chicken house.

PRESENT

There are six outstanding characteristics of program review today that are critical to any attempt to understand program review. First, it is now widely used in higher education; second, it has become more comprehensive; third, it is more systematic and formal; fourth, its purpose has shifted from formative to summative; fifth, it is being more closely tied to other decision-making processes; and sixth, attitudes about program review are changing.

Use of reviews is widespread. In a study reported in 1976, Glenny, et. al., found that program review was the sole professional/administrative area in which more institutions anticipated increases in the future than experienced in them over the past six years. For example, nearly one-third of Glenny's respondents expected an increase of over 5 percent in the number of staff employed in program review. While it is difficult to say with any precision if this has actually occurred, we do know that today approximately 82 percent of colleges and universities (public and independent, two-year and four-year) conducted some kind of formal program review and another 2 percent have indicated that they conducted an informal review of programs. The percentage of public institutions conducting such a review is considerably higher than the percentage in the independent sector. This is due to a combination of factors, such as the relatively greater pressure on the public
institutions for accountability, the existence of statewide coordinating/governing boards, the relatively greater administrative and management efforts of the public institutions, and the greater awareness of program review in the public sector.

The relatively greater percentage in the community college sector is due largely to its need to conduct annual evaluations of vocational education as part of the federal vocational education requirements. The more comprehensive reviews, that is reviews covering all programs at an institution, occur most often at the public four-year institutions. The reviews are least likely to be found in the proprietary and specialized institutions.

The vast majority of these reviews at all institutions have begun since 1975.32

Reviews are more comprehensive. As noted earlier, program review in higher education was pretty much confined to the review of graduate programs in the four-year institutions and the vocational education programs at the two-year level. This has changed rather remarkably in recent years. Not only have the reviews been extended to undergraduate programs and academic programs not previously covered, but they have also been extended to cover continuing education and non-academic programs, as well.

The reviews have also become more comprehensive in terms of the criteria used for review. Early reviews were often limited to several fairly simple criteria. Today the criteria for review are much more comprehensive and sophisticated. The advent of computerized information systems and the availability of personal computers now make possible the inclusion in the reviews of information formerly inaccessible and too time consuming. Also, several studies, such as the one undertaken by the Council of Graduate Schools in the
United States (CGS) and Education Testing Service (ETS), have identified a broad range of graduate program quality indicators that have been incorporated into instruments that can be used for program review.33

Reviews have become more systematic and formal. As noted above, some 82 percent of all postsecondary institutions report that they now have a formal process of review. There is a question whether all of these institutions really have a credible process of review, however, many institutions at least think they have such a formal process. There is no question, however, that program reviews have become more formal and systematic in the last decade. Where the reviews used to be conducted almost independently by various units based on more individualized approaches, they now are more centrally coordinated and are based on more standardized procedures. Specific time schedules for all campus reviews are more common and are frequently more closely adhered to than in the past. Evaluations of the review process itself are more common and have resulted in many major improvements to the reviews at all levels. Common data systems now frequently link the various review efforts on campus.

A primary purpose of the reviews is shifting. As the reviews have become more frequently used, more comprehensive and systematic, the purposes of the reviews on many campuses is shifting from reviews conducted primarily for program improvement to reviews conducted for purposes of program decision making, including possible termination. This is a significant change in purpose and has a profound impact not only on the reviews, but upon the institutional decision making processes, as well.

Closer linkage to decision-making processes. Some of the reasons for the shifting purposes of the reviews include the need for retrenchment at many institutions and the integration of the reviews into other on-going decision-
making processes in the institution. Figure 1 shows a number of areas that program reviews are often linked with. As the need to cut back on programs has arisen at a number of institutions, program review has been used as a process for identifying the strengths and weaknesses of the programs and for setting priorities among programs within an institution. Changes in planning approaches have also resulted in closer linkages to planning and budgeting.

As institutional long-range planning has shifted from management science and incremental approaches to planning to strategic-type planning, program review has become more critical to institutional decision making. All of the models of strategic planning being suggested today include an assessment of the strengths and weaknesses of academic programs. In many institutions, the assessment utilized for this purpose is essentially program review.

In spite of all these linkages to other decision-making processes, the primary purpose of the reviews at most institutions, especially four-year institutions, is still program improvement.

Changing perspectives of program review. As program review has become more widely used, effective and integrated into planning and budgeting processes, its perspective from the viewpoint of various constituencies has changed. It appears that in the eyes of academic leaders, that is presidents, vice presidents, and board members, program review has risen to a new level of importance. Many presidents and board members, for example, can now quote the rhyme and verse of their review efforts, where they previously had only vague notions of what program review was all about. Faculty in institutions with ongoing reviews have mixed emotions about the reviews, often reflecting their personal experiences in having their own programs reviewed (i.e., if results were positive, they are positive; if not, they are not). It has been the
Figure 1

CONTRIBUTIONS OF PROGRAM REVIEW TO STRATEGIC PLANNING PROCESSES IN COLLEGES AND UNIVERSITIES

Helps contribute to overall institutional effectiveness

Helps in identification of institutional priorities

Helps provide for institutional accountability (i.e., improved external relations)

Helps in budget allocation and re-allocation

Helps to determine institutional strengths and weaknesses

Helps to give faculty, administration, and board of trustees a sense of good stewardship

Helps provide guidance for program improvement

Helps define institutional mission

Helps assess an institution's competitive advantage

Helps contribute to overall institutional quality
author's experience that faculty at institutions without program review or
those in institutions where expansion and improvement in reviews are being
contemplated, increasingly have a negative connotation of program review and
must be sold on its value. In the minds of many of these faculty, the reviews
are being linked with program terminations and retrenchment efforts taking
place in other institutions. This attitude is not without some justifi-
cation. Unfortunately, this attitude ignores many of the positive aspects of
program review, such as program improvement, better resources management, etc.

The tremendous growth in interest and concerns about program review has
also resulted in myths about its adoption and use in higher education.

Webster defines the word "myth," in part, as, "an ill-founded belief held
uncritically, especially by an interested group." This definition seems
especially fitting in describing the "myths" about program review. The program
review myths are frequently held uncritically by persons wishing to influence
action (or non-action) regarding program review. Frequently, references are
made to these myths as part of the rationale for justifying a particular
action. Their use is not always made forthrightly.

Some of these myths are explored below:

Myth No. 1. You don't need program review if your programs are ac-
credited. A common reason noted by some faculty and administrators for not
undertaking program review is that their programs are already accredited by
regional and sometimes specialized accrediting agencies. While both program
review and accreditation are a type of evaluation and both can serve legitimate
purposes, there is still a sufficient enough difference between the two to
justify the use of both processes. To put it more positively, program review
and accreditation are actually complimentary. Several of the regional ac-
crediting bodies, for example, now encourage program reviews as an integral part of an institution's quality assurance program in preparation for accreditation. Reviews can also provide a continuity of program assessment between on-site accreditation visits. Accreditation, on the other hand, can bring the standards of a profession into consideration as a major part of a particular review.

The rigor and requirements of the various specialized accrediting groups vary considerably, so there is also value in an institution having a common review process that crosses all academic programs and is based on a consistent list of criteria. The program review process then may go beyond the minimal standards frequently required by the accrediting organizations and fill in the gaps where no recognized accreditation exists for particular programs.

**Myth No. 2. Identifying the criteria for review is the most difficult step.** There is some truth to this myth, but only because persons developing a program review process frequently confuse "criteria" with "indicators" of the criteria. Almost every comprehensive program review process uses the same basic criteria in some fashion. These common criteria are quality, cost, productivity, need/demand, and relation of the program to the mission of an institution, sometimes called "centrality." What is difficult and time consuming is the identification of indicators and related data for each criterion. For example, an indicator of graduate student quality could be a student's GRE scores; but frequently, some or all departments in a given situation cannot provide accurate data.

The development of an information support system for the reviews may be an extensive undertaking as current systems are reviewed and possibly restructured.
and new systems are developed. This is where the real difficulty lies, however, and not in the identification of the criteria for review.

Myth No. 3. Program review is synonymous with program discontinuance. There appears to be a growing tendency to equate program review with program discontinuance. Faculty members seem particularly susceptible to this interpretation, which is usually based on reading a sensational article describing how some institution or state board has eliminated "x" number of programs as a result of its program review effort. Consequently, these faculty and others are frequently opposed to efforts aimed at developing a program review process on their campus. This association of program review with program discontinuance is unfortunate, because the actual use of reviews in higher education for this purpose is small; and even where it is used, its impact is limited. In addition, this myth obscures the many positive benefits that can occur from a well-developed program review process.

While it is true that some program reviews do result in program discontinuance, the implications of a recent study by the author indicate that the vast majority of reviews are intended primarily, if not exclusively, for the purpose of program improvement. Whether or not programs are discontinued ought to depend on the purpose that the review is intended to serve.

Even when the objectives of a program review process include possible program closure, this need not be a cause for alarm. The experience of most institutions that have discontinued programs as a result of program review has been that fewer than 3 percent (on average) of an institution's programs are actually discontinued and frequently some of these are "paper programs" that result in little impact beyond printing changes in the next version of the institution's catalog. The number of "real" programs actually discontinued
is very low, and most of the institutions involved in such discontinuance have been exceedingly careful to minimize impact on faculty and students. Faculty retraining, phased retirement, reassignment, and other approaches toward lessening the impact are frequently utilized. Students are often allowed to complete a program or are assisted in finding new alternatives.

The structural outcomes of program review typically range from little or no change to program closure, with the majority of the actions taking place somewhere in between in the form of program modifications (i.e., resource allocation and re-allocation, staff reduction by attrition, changes in modes of delivery, mergers, etc.).

The actual impact of well-developed reviews on the vast majority of an institution's faculty, contrary to the implications of this "myth," can actually be very positive. Elimination or modification of a few programs (most of which were probably already held in low esteem on campus) can mean that there is a possibility of additional resources being made available for the purpose of maintaining and improving other programs, especially those identified as having a higher priority. Most faculty feel positive about having "passed" the review by virtue of having the quality of their efforts substantiated and having an opportunity to make a case for additional resources.

Due to the negative context that this myth places on program review, it also obscures many of the other positive contributions of program review to a college or university, such as:

- Improvement of academic program quality
- Identification of priorities among programs
- Increased assurance of consumer protection
- Heightened morale and optimism about ability to respond to changing conditions
- Increased attention to responsibilities to students
- Increased consideration of alternative ways to develop and deliver programs
Identification of funds for reallocation
Improved planning and budgeting

Myth No. 4. There is only one way to do program review. This myth is frequently held by both those who have a successful process and those who naively are searching for the one "true method." It is hard to tell someone who has been intimately involved in the development and implementation of a successful review process that that process, as good as it may seem to them, may not be the best process for another institution. Yet, the literature abounds with "show and tell" articles on program review, and there are plenty of true believers ready to initiate someone else's success story.

The development of a successful program review process is not easy, so there is an eager audience searching for an easy way out by adopting review methodologies developed elsewhere. Unfortunately, those of us who have served as "repair" consultants on processes that have failed, all too often find that someone has tried to implement another institution's success story and it has failed (sometimes miserably). The fact is that the most successful program reviews are those that are developed indigenously to meet the needs, traditions, and environment of a particular institution or system. Successful program reviews can occur in many contexts or combinations thereof, with locus of control at many different levels and accomplished through many different types of processes.

Myth No. 5. You can save money with program review. A frequently cited reason for undertaking program review is to "save money." While it is true that some institutions have "saved money" as a result of program review, some cautions are in order. First, whether or not anything at all happens as a result of a given review depends upon a number of factors, not the least of which is the original objective of the review and the process developed to
implement that objective -- they must be consistent. As noted earlier, some reviews are designed and implemented for the purpose of program improvement. Such reviews will seldom, if ever, result in a reduction in resources. In fact, reviews intended for the primary purpose of program improvement usually result in the identification of additional resource needs. Secondly, even when reviews have as an identified purpose the possibility of program discontinuance, instances of actual discontinuance are rare. As noted before, in some instances, the programs discontinued are "paper programs" that have no resources attached, so nothing can be saved.

The "savings," if they occur at all, are the result of the elimination of actual resource requirements of a given program, and primarily through the reduction of faculty through termination of employment, retirement, early retirement, reassignment, or other method. In addition, there are possibilities for "savings" as a result of future expenditures (obligations) that won't be spent and greater efficiencies in the institution as these funds can be reallocated to programs having a higher priority. For these reasons, it may be more useful to think in terms of "greater efficiencies" rather than "savings."

Finally, one should also be aware that program review itself has costs in money, time, and effort that need to be taken into consideration. Most institutions that have undertaken a cost-benefit analysis have concluded that the potential benefits of the process outweigh these costs.

Myth No. 6. Program review is expensive. The dollar costs of program review vary considerably from place to place. Such factors as the type of process utilized, the scope of the reviews, and the staff time allocated to the process all influence the costs. The "typical" process that involves the use
of outside peer reviewers, and covers 1 programs at a given institution over a five to seven year period, is expensive (although even in this approach there is room for some economy). There are a number of alternative approaches to program review, however, that are less costly. Three examples are noted below:

1. The use of a screening process to identify only programs that would undergo a more thorough review process, including outside peer review. This in-depth review would involve only a very few programs. The majority of the programs in institutions utilizing this approach would be given only a "paper review," based on standardized indicators of program viability.

2. The use of standardized survey instruments to assess program quality, such as the Graduate Program Self-Assessment Surveys developed by the Educational Testing Service, as a major component of a review process.

3. The use of more innovative approaches, such as the "evaluation by discussion" technique, a five-phase process for program review utilizing internal persons on an expert panel.

**Myth No. 7. Program review will result in spectacular results.** While this myth may sound a bit exaggerated, there are many persons who implement program review with the intention of quickly solving a number of major institutional problems and issues. Program review, if properly done, may do a lot of very valuable things for an institution, some of which are noted above. It will not, however, resolve everything that everyone expects, nor will it do much of anything quickly. In fact, many new administrative problems and issues may just begin as a result of the program review process. Such matters as identifying programmatic priorities and qualitatively assessing programs often create new resource demands. A number of difficult allocation and reallocation decisions will need to be made as the program review results are integrated into budgeting and planning decisions. The review process itself may prove to be inadequate and ought to be evaluated for "fine tuning." Consequently, it is important that those implementing program review have realistic expectations.
Program review will most likely result in few major changes for most programs, and these changes may take years to implement. Nonetheless, the reviews may be important for an institution in order to remain viable and to distribute resources in a rational manner.

In conclusion, several "myths" regarding the practice of program review have emerged in recent years. These myths frequently obscure the potential of program review to accomplish its full usefulness as a tool for institutional advancement. A recognition of these "myths" and proper development and implementation of program review processes can be helpful to institutions in efficiently providing quality academic programs.

FUTURE

Predicting the future of most anything is hazardous at best. There are some signs, however, that appear to shed some light on what may happen in the future, with respect to program review. The antecedents of program review provide a lesson on things to come. It was noted earlier that most of the major antecedents to program review occurred in response to circumstances and events taking place outside of academe. It is likely, therefore, that the future status of program review will be similarly impacted by external events.

In many quarters, program review has a status much like "Mom's apple pie." There is every indication that those who have provided the impetus for program review (i.e., the public and its elected and appointed representatives), as well as those in leadership positions in higher education, will continue to view program review in a favorable light. As Paul Dressel has written:

Failure to engage systematically in evaluation in reaching the many decisions necessary in education means that decision by prejudice, by
tradition, or by rationalization is paramount. Such patterns of decision making are not consistent with the aims of education, particularly with those of higher education, which in our culture are based upon the assumption that informed judgments can and should be wiser judgments.

The use of program review for administrative and external purposes may give rise to a conflict in purposes for which program review is being asked to serve. As noted earlier, program review has emerged from what was primarily an effort to improve programs to an effort to facilitate decision making with respect to planning and budgeting. These are obviously different purposes and require different or creative approaches. It would indeed be unfortunate if program review became solely an instrument for budgetary allocation rather than an instrument for improving the quality and effectiveness of an academic program. Those involved with program review in future years will need to address this issue.

In recent years, program review has become significantly more comprehensive and sophisticated due to the availability of computers and our capacity to generate complex analyses of issues. The technologies in higher education are increasing at such a fast pace, it is difficult to comprehend what major changes could occur in just a few years. It is quite likely, however, that these technological capabilities will increase, resulting in new and even more sophisticated approaches to the review of academic programs. One such development could well be the use of computerized decision-making models, such as Interpretive Structural Modeling (ISM), which has been used in the business and governmental sectors. Through the use of such models, complex factors and large amounts of data can be analyzed and interpreted for use by decision makers.
Finally, it would seem unlikely that there will be very many institutions in a few years that will not be undergoing some kind of program review. The trend in recent years is likely to continue on into the future. Also, there will continue to be (hopefully) improvements made in existing processes of program review. Many institutions have not yet availed themselves of the opportunities for significant improvement in their existing program review processes as a result of a comprehensive evaluation of the process itself. Truly innovative approaches are hard to find. As one who has done extensive consulting with colleges and universities regarding program review, there is a tremendous need for the evaluation of existing program review processes; and this evaluation component should become a standard operating procedure in every cycle of program reviews. A lot can be learned in such evaluations that could lead to positive improvements and new approaches.

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