Because of increased access of postsecondary education in the 1950's and 1960's, higher education cost analysis gained importance. Attempts have been made to develop a standard unit cost, but it is hard to see unit cost accounting by itself as a valuable tool for public accountability or policy making. For these purposes a cost-effectiveness ratio is needed. Efforts to analyze costs have proceeded much further and gained considerably more sophistication than efforts to measure effectiveness. As a result, it is understandable that policy makers frequently find themselves relying on cost figures alone as a basis for decisions. Why is it that efforts to measure effectiveness fail? What might be done to move in that direction and what are the problems? In an attempt to answer these questions the study considers: (1) criteria by default: manpower models; (2) criteria: access and retention; (3) criteria: vocational and career choices; (4) education's lifelong benefits; (5) measurement as an educational tool. (Author/KE)
The use of efficiency-oriented criteria is a controversial means of evaluating educational processes. In the text which follows, Virginia B. Smith, director of the Fund for the Improvement of Postsecondary Education, presents what she called "The View from Washington." This speech was delivered at the SCUP/ADAPT workshop, "More for Less: Academic Planning With Faculty Without New Dollars," held April 17-19, 1974 at the Nordic Hills Conference Center near Chicago.

This last year as Director of the Fund for Improvement of Postsecondary Education, I have had the unusual opportunity of reviewing a total of 4,000 proposals of what institutions wish to do to improve themselves. From such a vantage point, it is possible to see most encouraging signs of vitality and health in the nation's postsecondary system, in spite of pervasive financial concerns. It is inevitable, however, that the same vantage point affords a view of many problems, problems which may make it difficult for the signs of vitality to come to fullest fruition.

In the 1950's and 1960's we engaged in a revolution in access to higher education. The relative success of that revolution brought greatly heightened visibility for higher education budgets. Not only did the costs grow because of the 100 percent increase in enrollment in a little over a decade, but costs per student also rose sharply. These two upward pressures led to a dramatic increase in the total impact of higher education costs on the nation's budget. In 1960, about one percent of the Gross National Product went for higher education expenditures. By 1970 the percentage had risen to 2.5. What had been relatively minor expenditures in state budgets had now become very noticeable items.

Analysing Cost Analysis

Against this background, it is understandable that higher education cost analysis is almost becoming a new national pastime. We are hearing about cost per student, cost per degree, cost per credit hour. We have heard those who wish to develop a standard unit cost for segments of higher education. But so far there is little agreement on the precise magical unit that could be used as the basis for this type of cost analysis. Although recognizing that it is a bit premature to mandate a system of standard unit cost accounting, the recent report of the Commission on Financing Postsecondary Education did recommend a voluntary use of the NCHEMS approach. And certainly this effort might have benefit as a first level general management tool. It is, however, hard to see unit cost accounting by itself as a valuable tool for public accountability or policy-making. For these purposes, we would need a cost-effectiveness ratio, unless, of course, we can safely assume all educational activities are equal in benefit and therefore interchangeable. If this were true, we would only need agreement on some gross unit and cost analysis based on that unit. I doubt that any of us would agree with an assumption of interchangeability, and yet we are...
behaving exactly as though we do. Our efforts to analyze cost have proceeded much farther and gained considerably more sophistication than our efforts to measure effectiveness. As a result, it is understandable that policymakers frequently find themselves relying on cost figures alone as a basis for decisions.

Why is it that we have failed to measure effectiveness? What might be done to move in that direction? What are the problems in moving in that direction? First of all, it should be pointed out that failure to measure effect consciousness doesn't mean that it isn't being done. In some cases it is being done for higher education and in some cases it is being done by sections of higher education.

It is being done on the very simplest level. After all, anyone who hires college graduates, or observes them in various roles, is probably making some connection between that college graduate's performance and the quality of his education. That, perhaps, is the deepest measure of effectiveness of college education. It is continuing observation in many situations, by many people. Without advantage of a systematic approach, and without any aggregation of conclusions, it is, nonetheless, a measure of effectiveness of college education which forms one basis for judgment in the minds of many of us.

Criteria by Default: Manpower Models

Our effectiveness is also being measured along somewhat different dimensions. In this nation, we have been concerned about initial access to higher education, and implicitly it is used as one dimension of effectiveness. But foreign observers, comparing their nation's higher education system with ours, think of access in terms that are somewhat different from ours. For instance, Sir Eric Ashby of England, in an essay on American education, pointed out that although we deal in very, very large numbers in terms of access to institutions, England does about as well as the United States if educational opportunity is defined in terms of degrees achieved at the bachelor's level. While 50 percent of the college age group has initial access in the United States compared to 20 percent of that age group in England, our attrition rate is much higher than England's. A 20 percent bachelor's degree attainment level in this nation compares with a 14 percent figure in England. The dimensions along which effectiveness is measured should reflect the values of the nation. It is probably inappropriate to measure education in this country only in terms of bachelor's degrees. But since we haven't been particularly articulate about what we want measured, we're fair game for the application of a variety of available measures which may or may not represent what we consciously believe to be the most important dimensions of our system.

Studies comparing retention rates of students in occupational programs in private trade schools with retention rates for students in community colleges suggest that community colleges have lower retention rates. Spokesmen for community colleges point out, however, that their purpose is not retention within a given occupational program. One of their measures of success, it is argued, should be the ability of the student to shop around, to look at different kinds of vocational programs, then move on to others. In other words, what the community college representative was saying is that effectiveness was being measured on the wrong scale.

Criteria: Access and Retention

If, indeed, our goal is to permit students to explore and examine alternatives for career choice, then we need to assess effectiveness along that dimension. Then attention shifts from retention to effectiveness of the community college technique of providing exposure to a number of occupational choices. Is it reasonable to assume, without further analysis, that permitting the student to dip into particular instructional programs for brief periods of time is one of the most effective ways to make that choice? It is important to remember, however, that those who identified "shopping around" a goal did not do so to stimulate analysis of effectiveness, but rather to negate the relevance of some other effectiveness assessment measure.

The higher education community has, for the most part, taken a similar stance on Christopher Jenks' recent view. In general we argue that Jenks is attempting to judge the success of our system on outcomes it never promised. Whether or not this is the case, it is clear that our reaction to Jenks' efforts was in the usual mode, a negation of the assessment, and failure to suggest aggressively a more relevant assessment approach. In a sense, our failure to provide the framework for effectiveness is the greatest strength of those who wish to move toward an efficiency approach, a standard unit cost approach, without reference to the quality of the outcomes.

Criteria: Vocational and Career Choices

It is perhaps a bit misleading to say that we are not consciously measuring effectiveness. In several ways, we are. For instance, in many of our colleges we have readily available figures on how many of our Ph.D.'s have moved into teaching jobs in prestigious institutions. Our willingness to measure along these dimensions gives signals that these are the only values in higher education to which we give importance. By failing to talk about effectiveness in other terms, we are in a sense selling our institutions on highly restricted, very narrow vocational kinds of grounds. Because of that, we may increasingly find that others accept this view and assume therefore
that manpower concerns should shape the size and nature of the higher education system. Most of us in this room would reject the notion that this nation's higher education systems should be driven by manpower models. Yet, we have not developed many credible ways of demonstrating other dimensions of effectiveness beyond vocational impact.

This is true even for the liberal arts. Particularly in the liberal arts we seem to be left with quality measures like "how many of our graduates go on to graduate school" which we generally see as farthest removed from vocational concerns, and this is a vocational question. One could argue that some of our liberal arts programs are the most vocational programs in the country. We tend to measure them in terms of the nature of involvement in the discipline rather than the use of that discipline for broader types of purposes within the society.

Education's Lifelong Benefits

In part, it is also this failure to discuss persuasively higher education's nonvocational benefits that leads many to assume its benefit begins and ends with entry into work. And this truncated view has financing implications. The cost of higher education is high, but not so high when measured against many other lifetime purchases. Investment in a home is usually greater; orthodontia may be as expensive; a three-week vacation in New York City would probably be about as expensive as one term in college. But we have only begun to think of higher education as a lifetime purchase. It is, in fact, still one of the few major personal expenoiitures in which we expect to compress the payment period into a very brief time. Loan programs are changing this somewhat, but for many, the willingness to view higher education as a lifetime investment still remains to be developed. This can be accomplished only with better understanding of its multiple benefits.

I was on a panel not long ago with a higher education leader who indicated that we are never called upon to justify and explain the outcomes of the important things in life like love and friendship, and he believes that higher education should be viewed similarly. Who could talk about love, friendship and religion in terms of effectiveness or measurable benefits? And, of course, this is true. It would be comfortable if education could be viewed in the same way. Unfortunately it is not possible. No one is asking for public subsidies for love, friendship and religion. If we were, I think we would soon need assessments of even these endeavors.

Seeing the value of assessment in higher education is complicated by the sociology of education. Most faculty members are primarily concerned with the substance of their discipline. Many faculty members leave concern with methods of teaching to those who teach in the lower schools. They draw a distinction between these teachers and themselves as faculty and scholars. Schools of Education are frequently viewed by college faculty members as being related to the functions of teachers and not faculty members. Indeed, the faculty members in Schools of Education sometimes behave as though the material of their courses on educational psychology and pedagogical practice has little or nothing to say to them about the way they conduct their classes concerning these topics. Establishing the importance of assessment of educational delivery among persons who see this as outside their sphere of appropriate interest is hard, but not impossible.

Although it is sometimes difficult to establish the need for assessment, it is not the most difficult part of the task. The process of assessment is very complex. In our rush to sell the necessity for it, we must not underestimate the task. The state of the art is primitive and complicated by the fact that most educational activities have multiple and intertwined goals. We tend in such a situation to measure that which is easily measured and do little to explain other outcomes of the educational activity. Because of this, those outside the educational activity get a limited and perhaps misleading view of the objectives of the process. We have probably not yet learned to describe the most important objectives to others.

Research on learning gains resulting from different instructional strategies has also been less than satisfactory. In much of this research we aggregate too early. In our eagerness to come up with generalizations, we look only at comparisons of group performance. We thereby obscure the very thing we are attempting to study—how individuals perform in response to different learning strategies. The promise for greater effectiveness lies in growth of our understanding of individual differences and our ability to aid learners to be receptive to a range of learning styles. In most educational programs, we have done little to increase the ability of students to learn in a variety of circumstances. If we are to develop adults who are able to learn from all their experiences, this attention to expanding receptivity to learning is essential. Any aggregated information does little to accomplish this.

Measurement as an Educational Tool

We must find more useful ways to determine effectiveness as an aid to educational planning. Only through careful and systematic evaluation will we know what decisions to make. One key to any system of evaluation is the specificity of goals for the activity. Our ability to develop clear goals may hold the greatest promise for improved evaluation. I will share with you a quote that I ran across the other day: "What America needs today is a schooling better aware of its aims. Our colleges need to see clearly what it is they are trying to accomplish." That quote isn't from the Guidelines of the Fund. It is from the President's Commission on Higher Education, issued in 1947. It is still very relevant today. Perhaps it is even more relevant today, because in 1947, less than 25 percent of the 18-22 age group went on to college.
Today with more than 50 percent of this age group going on to college, it is even more important than the educational mission of an institution be clearly visible to students and to the public. As we channel more educational funds through students, it becomes essential that students be provided information on the approach and purposes of educational programs so that they may choose those institutions having both programs and learning approaches suited to their needs.

I realize that by emphasizing the key role for evaluation in educational change, I am accepting the dual standard which exists in our educational enterprise. This is not unusual. We are pretty certain that we must have ways of evaluating effectiveness of new and experimental programs. At some stage, we require it. Even before launching a new program, funding agencies require some statements about the value of the experiment. We do not usually need to demonstrate, however, the effectiveness of programs already established. It must be that we assume that since they existed for some time, they must be effective. The greatest potential for improved effectiveness, however, might well come as a result of evaluating present as well as new programs for similar outcomes.

We should not assess new programs totally in terms of new measures or the old programs totally in terms of old measures, but cross-test both the old and new in terms of the outcomes hoped for both new and old programs. Only by such an approach will we know not only what we are gaining but also what we are losing. If we require assessment of new programs, then we ought to measure with the same degree of precision the effectiveness of old programs which the new programs are supposedly replacing. We have not required that in many of our institutions. We have required only that the new prove themselves and that the old simply continue.

As we move toward more useful techniques of evaluating educational programs, I believe that evaluation procedures for individual student progress will change markedly. New procedures will be much more integrated with the educational activity itself. It will, in fact, become a learning strategy itself, one that aids the student primarily instead of being used primarily as a sorting device. Our system of evaluating student progress has provided little information on effectiveness of different programs. We have spent our energies and our time in comparing students with each other rather than in comparing results of different educational approaches. When we shift this focus, we will develop a new and vital capacity for educational planning.

—Virginia B. Smith