

Assessing the Economics of Outcomes Assessment

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Recently higher education has been gripped by concerns about the assessment process and few areas of the university have been immune from assessment pressures. One significant dimension of this process is outcomes assessment, which has been described as, "the process of providing credible evidence of the outcomes of higher education undertaken for the purpose of improving programs and services within the institution." (Banta, 1993) A lengthier definition, provided by Angelo (1995), tells a more complete story:

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; using the resulting information to document, explain, and improve performance. When it is embedded effectively within larger institutional systems, assessment can help us focus our collective attention, examine our assumptions, and create a shared academic culture dedicated to assuring and improving the quality of higher education.

Finally, a simple, yet elegant definition is that assessment consists of "the tools and techniques used by everyone to understand essential processes." (Porter, 1998) Whatever definition is chosen, pressures for some form of outcomes assessment have been building in an inexorable manner in recent years. Can we apply economic analysis to the outcomes assessment movement (or craze) so as to gain a better understanding of academic outcomes assessment and its implications for higher education? What is the political economy of outcomes

assessment? Are there specific contributions that economic reasoning can bring to bear on the assessment movement?

The Demand for Assessment

National academic organizations such as the American Association for higher Education (AAHE) and the American Association of Colleges and Universities (AAC&U) refer to the need for outcomes assessment almost continuously. Regional accrediting bodies such as the North Central Association, and disciplinary accrediting organizations such as the American Assembly of Collegiate Schools of Business (AACSB) and the American Accounting Association (AAA) have become increasingly demanding regarding outcomes assessment for institutions undergoing accreditation or reaffirmation reviews. In essence, the demand for outcomes assessment appears to originate primarily from these sources. For instance, the AACSB seeks to encourage widespread adoption of outcomes assessment techniques and processes among member business schools. Such assessment processes are to be linked to the mission of the school so as to provide a base of information that enables a business school to pursue continuous improvement (Singell, 1998). Ideally, outcomes assessment should provide reliable and valid information to program directors, curriculum committees, or other decision makers to fine-tune academic programs and services. This information may also provide a basis for strategic planning or resource allocation decisions.

Although accreditation may provide the major motivation for outcomes assessment, problems of declining enrollment or shrinking market share may also provide an impetus. Deans or other academic administrators may also be found on the demand side of the outcomes assessment equation, again because of pressures for action leading to Acontinuous improvement@ and, in the case of the AACSB, ultimately for accreditation or reaffirmation purposes. It is even conceivable that some faculty might want to get an objective assessment of what is going on in their courses, programs, or majors. The idea that continuous improvement makes more sense when you know where you are and where you want to go is supportive of outcomes assessment.

There is also the ever-present possibility that rent-seeking behavior is somehow involved in outcomes assessment. In fact, one can argue that the accreditation process itself is an attempt to create rents among those institutions that attain accreditation. Given that outcomes assessment appears to find its most ardent supporters among those pushing accreditation, one could certainly argue that calls for outcomes assessment are consistent with rent seeking.

To summarize the demand side, it seems clear that pressures for outcomes assessment will be directly related to the proximity of an accreditation or reaffirmation decision or the pressures from shrinking enrollments. For institutions with strong enrollments that are relatively far from accreditation deadlines, or institutions that are not seriously seeking accreditation, the demand for outcomes assessment will be relatively weak. Other factors that might increase the demand for assessment include an energetic president or board of trustees, a legislature or governor concerned about accountability, or perhaps a subset of the faculty interested in truth in advertising.

Another aspect of the demand for outcomes assessment is the intended purpose of the assessment's result. It is useful to dichotomize the purpose of outcomes assessment between evaluation and diagnosis. If outcomes assessment is sought for diagnostic purposes, one should anticipate one set of behaviors from those being assessed (e.g., the faculty or the institution's administration). On the other hand, outcomes assessment designed to provide evaluative information is likely to be greeted with a very different set of behaviors (i.e., abject hostility and unmitigated cynicism). Faculty resistance to outcomes assessment efforts should be anticipated under most circumstances and often this resistance may well be understandable. Assessment used for control purposes is usually a self-defeating process. It should also be borne in mind that some academic administrators such as department chairs or heads, program directors, chairholders, and even deans may be resistant to the idea of outcomes assessment.

It is quite common that the compliance with demands for outcomes assessment on institutions as a whole, or on entire colleges of arts and sciences or schools of business, tends to be pushed downward in the organizational structure towards departments. It is

therefore appropriate to ask how these assessment demands might affect individual academic departments. Does outcomes assessment pose a significant threat to the status quo? Or, does outcomes assessment present new opportunities for the strengthening of existing departments and their faculties? Before attempting an answer to this type of question, the supply side of outcomes assessment needs to be explored.

The Supply of Assessment

The supply side of the outcomes assessment process can be partitioned into groups a) that provide information or data inputs for the assessment, or b) that process, interpret, or analyze the inputs. Those providing the assessment data may be narrowly or broadly defined. For instance, a narrow definition might focus only on standardized test scores from instruments designed to measure student cognitive achievement in the major field. Graduating majors might be required to pass the Graduate Record Examination (GRE) or the Major Field Achievement Test (MFAT) at some predetermined level (say, the 40th percentile of the national norms). On the other hand, a broad definition of outcomes assessment might seek a wide range of inputs from a number of different stakeholders for the department, college, school, or institution. In other words, assessment inputs might be sought from students (in terms of cognitive learning, skills, attitudes, and/or satisfaction with their educational institution); from alumni at some distance from their educational experience; from employers or recruiters of the institution's output; from the board of trustees or a business advisory council; and/or from faculty and staff of the institution.

One problem associated with a narrowly defined assessment process is the difficulty of identifying one instrument or technique that will provide an adequate assessment of the activity (say, a student's major) under scrutiny. For example, my colleagues in Finance object to the notion that a paper-and-pencil test (such as an ETS-designed MFAT for Finance) would provide a meaningful assessment of a finance major. They argue that such an instrument may allow for the measurement of cognitive knowledge in the field, but it cannot assess the skills, attitudes, and problem-solving

capabilities which they seek to inculcate through case studies, internships, field work or other teaching and learning strategies that are significant components of a solid major in finance. Note that while this argument may support the desirability of multidimensional assessment, it does not justify the rejection of valid and reliable objective tests for the assessment of cognitive knowledge, an important component of the major in virtually any field.

There is, however, an additional problem with narrowly focused assessment. This is the problem of what is known in economics as Goodhart's Law: Widespread knowledge that macroeconomic policymakers have adopted a specific variable as an operating or intermediate target for the conduct of monetary policy will result in changed public behavior toward that variable. In other words, a variable that had previously been stable will become unstable once policymakers rely on its stability in making policy (Mayer, Duesenberry, and Aliber, 1996). Thus, one might readily anticipate that the adoption of a single test score as the criterion variable for program assessment is quite likely to lead to changed behaviors as a result (e.g., *Teaching to the test*).

The other group on the supply side of outcomes assessment referred to above includes those organizations or individuals that process, interpret, or analyze assessment inputs. Their interest in the outcomes assessment process may be entrepreneurial or may involve rent-seeking behavior. Can a clear distinction be made between these two possibilities? Perhaps, but in either case, those on the supply side will be pushing for an expansion of assessment activities. Organizations such as the Educational Testing Service (ETS), the American College Testing Program (ACT), and Educational Benchmarking Inc. (EBI) sell their testing and survey services to institutions and schools undertaking outcomes assessment. Numerous individual professionals market their services as consultants, design experts, and *outside evaluators* to those programs undergoing or contemplating outcomes assessment. Many of these external suppliers of assessment offer valuable tools that can enhance an institution's assessment results, but they are not necessarily unbiased purveyors of assessment components or services. This may even extend to the accrediting organizations such

as the AAHE and the AACSB in that they may derive organizational income, additional influence, enhanced status, and/or greater national visibility as a result of their jumping onto the assessment bandwagon.

Market Equilibrium: What is the Price of Quality Education?

In the above discussion of the demand and supply of outcomes assessment, price as a determinant or explanatory variable has been conspicuously missing. This is somewhat disturbing in an economic analysis but, on second thought, it is not unusual in a setting dealing with education, especially higher education. Prices in higher education are, at best, rather fuzzy. In fact, the nature of the goods consumers are buying is also ill defined. What good are they purchasing: future employability? reputation? a particular lifestyle? But pricing in higher education is most problematic.

What is the true price of a quality education? Students at state institutions pay tuition it is true, but their tuition payments allegedly amount to little more than 25 or 30 per cent of the cost of that student=s education. In the case of private institutions, the situation is not a great deal clearer. At my own institution, tuition is currently approximately \$14,000 per year, but the average value of financial aid packages to our students is about \$12,000, with a healthy proportion of our student body receiving financial aid. In fact, price-based indicators of educational quality and quantity are difficult to find and are often ambiguous at best, leading people to seek out substitutes such as accreditation or annual rankings in magazines such as *U.S. News and World Report* or *Peterson=s Guide*. It also appears that many of these non-price measures of educational quality are defensive in nature, providing ammunition for one supplier to use against other suppliers rather than providing significantly useful information to consumers of education. The accreditation game is an example. In the early 1990s, the AACSB overhauled its procedures and standards for accrediting schools of business. To a significant extent, those revisions were brought on because of complaints from non-accredited institutions and the threat of potentially competitive accrediting agencies. But now that the new standards have been in effect for a few years, noises are being heard from some of AThe Big

Schools about the desirability of subdividing accredited schools into various categories or divisions such as NCAA divisions I, IA, II, and III. In other words, the rents from accreditation are lower now that accreditation is less exclusive.

The notion of assessment market equilibrium may not boil down to a clear-cut price that clears the market for other reasons as well. For instance, some significant portion of the costs of outcomes assessment may not be immediately apparent. This may depend upon how the results of the outcomes assessment are used after all the data are in, all the analyses are completed, and all the final reports are written, circulated, and digested. As stated above, the purpose of outcomes assessment may be either diagnostic or evaluative, but in either case, a thorough outcomes assessment is likely to call for some changes in the ways in which the institution does its business. Such changes will almost certainly have differential impacts across the institution or school. Some administrators, departments, academic units, or faculty members may be identified through the assessment process as being deficient, below standard, or in need of significant improvement. Indeed, if an outcomes assessment leads to no significant changes in organization, curriculum, or leadership, one should probably raise questions about *why* the assessment was ever initiated. In any event, it is quite likely that some programs or individuals bear significantly higher costs at the end of the process than were anticipated in its beginning.

Questions about the level of assessment aspiration also need to be addressed. If one thinks of aspiration levels being arrayed on a spectrum ranging from adequate to perfection, what level does one target? Here the notion of continuous improvement is helpful as a guiding principle (unless you are Stanford). If continuous improvement along a spectrum is the desired product of an academic endeavor, the need for measurement is clearly implied. How do we know that continuous improvement is occurring if we cannot measure what we are doing? Measurement techniques and instruments must therefore be selected, and the properties of measurement instruments need to be considered in this selection process. The major properties or characteristics of measurement instruments are:

- \$ Reliability
- \$ Validity
- \$ Sensitivity
- \$ Uniqueness
- \$ Utility
- \$ Acceptability

Each of these properties has some significance in the outcomes assessment process and each should be considered before a specific instrument is chosen (Soper & Brenneke). For example, one type of measurement instrument, the respondent test (i.e., a paper-and-pencil achievement test) is likely to have high reliability but low sensitivity in the measurement process. Trade-offs are inevitable when specific instruments or techniques are selected.

Outcomes Assessment and Economic Thinking

When (not if) outcomes assessment arrives on the campus, are there specific contributions that economics might bring to process? The economic perspective includes several rubrics that ought to be brought to bear on outcomes assessment processes and practices. In other words, economists know some things that others do not. For example,

- \$ **Incentives matter.** This means that anticipated faculty resistance can be overcome if appropriate attention is paid to incentives. It also implies that failure to incorporate this principle into assessment planning is likely to prove costly in the long run.
- \$ **Do marginal benefits exceed marginal costs?** This has much to do with the point about incentives above, but there is much more to this. Can we anticipate that a thorough outcomes assessment will generate institutional benefits greater than the associated costs? Is this the case for individual stakeholders in the institution?

- § **Before collecting data, what is the data to be used for?** To paraphrase the immortal words of Cuba Gooding, Jr., in *Jerry Maguire*, AShow me the model!@ A carefully specified model at the outset will prevent much wheel-spinning data collection later on.
- § **Opportunity costs are the costs that matter.** In considering outcomes assessment, both explicit and implicit costs are relevant, especially since the implicit costs are likely to be high. Faculty members might be forgiven for asking, Awhat should I do less of in order to devote time and energy to outcomes assessment activities?@ Some advocates of full-bore outcomes assessment seem to believe that faculty (or secretaries, or students) have no opportunity costs.
- § **Information is beneficial but its acquisition is costly.** Although it is generally true that the more information we have, the better the decisions we are likely to make. But it is also true that acquiring information implies costs, and sometimes these costs are substantial.
- § **Who benefits, who pays?** Distributional questions are ever present when economic actions are involved and outcomes assessment programs are not different. Does one group bear a disproportional share of the costs of assessment, while another group reaps most of the benefits?
- § **Using scarce resources to produce something is always costly.** Assessing academic outcomes will require the allocation of scarce resources (particularly faculty time and effort that might be better expended in improving teaching and further research). Ignoring this fundamental economic principle may result in the misallocation of resources and much faculty unhappiness.

These propositions are suggestive of what economics can do to illuminate the question of outcomes assessment in higher

education. Employing economic analysis in the assessment of outcomes assessment may lead to better decisions and lower costs in the implementation of an outcomes assessment protocol. Ignoring the economic perspective is likely to result in much more costly implementation of outcomes assessment.

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