THE PRIMER FOR INSTITUTIONAL RESEARCH

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Printed in the United States

ISBN 1-882393-10-4

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Introduction

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Despite the maturation of the profession, the question, *What is institutional research?*, seems to be perpetual. While many of us have attempted to provide answers to family, friends and colleagues, the responses we often get suggest that our answers are somewhat lacking: "Just as long as you're happy, dear, and the work is steady." "I've worked here for 25 years and had no idea anyone did this kind of work." and "I can't believe they really pay you for doing that!" Some of the more meaningful definitions have included: "research conducted within an institution of higher education in order to provide information which supports planning, policy formation, and decision making" (Saupe, 1981, p. 1); an activity having " . . . to do with what decision makers need to know about an institution, its educational objectives, goals and purposes, environmental factors, processes, and structures to more widely use its resources, more successfully attain its objectives and goals, and to demonstrate integrity and accountability in so doing" (Dressell, 1981, p. 237); and "a critical intermediary function that links the educational, managerial, and information functions of higher education institutions and functions" (Peterson, 1985, p. 5). Terenzini (1993) built upon the idea of institutional research as a form of "organizational intelligence" that requires three types of personal competence and institutional understanding for successful practice. He suggested ways in which each of the three types of knowledge and skills can be gained.

Given diversity in both the levels of professional knowledge and skills held by institutional researchers and, the ways in which they have been acquired (Knight, Moore, and Coperthwaite, 1997), it is incumbent upon the leaders of the profession to provide a variety of professional development opportunities to both new and experienced practitioners. *A Primer on Institutional Research* (1987), *The Primer for Institutional Research* (1992), and *Strategies for the Practice of Institutional Research: Concepts, Resources, and Applications* (1994) are three publications from the Association for Institutional Research (AIR) designed to provide an introduction to some of the more common institutional research issues, methods, and resources for newcomers and to provide a means for veterans to update their capabilities. Those volumes, and this update, serve as just some of the many professional development resources available to institutional researchers; several other resources will be highlighted in the concluding chapter.

The purpose of this volume is to update and expand upon these previous works. I was very fortunate to be able to assemble a group of highly talented authors, whose efforts represent a significant contribution to the profession. John Muffo opens the book with a chapter on institutional research support for college and university accountability, including focus upon institutional

accreditation; disciplinary accreditation; new program approval; internal program review; data reporting to federal, state, commercial, and inter-institutional agencies; special studies; and state-mandated assessment activities and performance studies. Institutional research support for assessment is always an important topic. Karen Bauer discusses definitions, principles, and purposes of assessment as well as levels and key steps in assessment projects; she ends by showcasing examples of assessment measures for researchers.

Michael Middaugh and Heather Kelly Isaacs focus on faculty activity and productivity. Their chapter highlights the conditions in American higher education that mandate the development of instructional productivity and cost measures on campus, provides a discussion of framing the appropriate language for describing faculty duties and responsibilities, and focuses on the need for providing practical management information for decision support. Rich Howard and Gerald McLaughlin highlight the analytical and political issues involved in faculty salary analysis. Their work includes important background issues for consideration, a conceptual model for faculty salary analysis, recent developments in faculty salary analysis and points to consider, and a series of steps that institutional researchers should use when asked to carry out faculty salary analyses.

In their discussion of enrollment management, Rick Kroc and Gary Hanson provide an overview of student recruitment, including the educational pipeline, enrollment projections, and financial aid; student flow, including academic preparation, the curriculum, academic and student support programs, graduation and retention rates, and issues beyond graduation, and support for enrollment management; including organizational structures, necessary IR technical and analytical skills, data sources, and communicating results of enrollment management studies. They conclude with a consideration of the future of enrollment management. In their chapter on peer institutions, Deb Teeter and Paul Brinkman highlight selecting peer institutions and conducting inter-institutional data exchanges; they focus on both the political and technical issues of choosing peers, as well as issues involved with acquiring and working with peer data.

Tod Massa's chapter on using the Web for institutional research represents an important addition to this *Primer* that will be beneficial to veterans, as well as new, institutional research practitioners. Tod focuses upon the Web as an organic medium, connective sense-making, applying the Web to the IR life-cycle, and concludes with a look to the future. John Milam's chapter on using national datasets for postsecondary education research is a valuable resource for today's institutional researchers; his work focuses on using different lenses for finding data, understanding major data collections, getting access to datasets, and emerging trends in data collection. Andrew Luna and Tara Pearson inform institutional researchers about the importance of records management and describe how to create an effective records management program within an IR office. Finally, I provide a concluding chapter on additional professional development opportunities for institutional researchers.

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Chapter 1
Institutional Research Support of Accountability

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Introduction

Accountability is a popular term in higher education these days. It refers to colleges and universities being held responsible for using their resources in an efficient and effective manner in order to produce the best education possible at the most reasonable cost. In many regards it is a reaction to the traditional condition, cited by a former board member many years ago, who said that the institutions of postsecondary education in his state could not explain what they did with the money they were given during the prior year. All they knew was they needed more of it the following year. Such perceived responses are very difficult to understand for the business and professional people who constitute the higher education boards of trustees, both public and private, as well as state-level boards. They tend to be accustomed to "bottom line" or profit-making environments and have difficulty understanding the lack of accountability measures in colleges and universities. The tendency, therefore, is to require that some be developed.

The kind of accountability discussed in this chapter is not normally financial accountability, though that is sometimes touched upon in certain reporting activities. The type of accountability referenced here is less legalistic and financial, as accountants might be concerned with, and is, instead, more performance oriented. In institutional research, the focus tends to be more on performance auditing than on financial auditing. The former asks how well the money was spent, while the latter addresses whether or not it was spent properly, i.e., within legal and other acceptable financial bounds. Only occasionally is a college or university accused of financial improprieties. Unfortunately, accusations of mismanagement and instructional malfeasance are much more common.

One approach that has been employed is merging financial data with performance data to create efficiency measures of various sorts. There is a long history of developing measures such as costs per student credit hour, square footage of buildings per student credit hour, faculty and staff members per headcount and full-time equivalent student, etc. While most often associated with budgeting, such data also have been used to identify the relative efficiency of institutions, especially public ones. The use of such measures has driven accountability in the sense that they have been employed to restrict institutional resource ambitions.

There are a number of ways of evaluating accountability internally and externally. One common method is comparison: *How are we doing compared to our closest competition or to our "peers" ?* Another method is trend analysis:

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How has the number of applicants to a program, for example, changed over time? Yet another approach uses targets: *Have we reduced our costs by five percent as planned? Is this program as successful as the benchmark one at another institution?*

It is logical to question why so much attention has been focused on the performance aspects of accountability in recent years. Several answers to that question have been suggested, and probably all of the proposed answers have had some influence. One suggestion relates to the large percentage of students now going to college. When more than half of all high school graduates are attending college, there is less mystique regarding it. "Familiarity breeds contempt" might apply here. In addition, many families are impacted by higher education, financially and otherwise. More complaints, whether valid or not, are passed along to lawmakers and other influential people, themselves undergraduate alumni, at cocktail parties and over back fences. Communication of concerns is easier as well. Traditional telephones, cell phones, faxes, e-mails, the Internet, magazines, newspapers, and improved transportation all contribute to a world full of supposed experts expressing their opinions on higher education. The call for accountability happened first at the K-12 level; now it is happening at the postsecondary level.

Another related factor has to do with the sheer amount of resources now devoted to higher education. The June 30, 2000, value of the Harvard endowment alone was reported to be nearly $19 billion, while the public University of Texas system had more than $10 billion. Single private gifts of $100 – $200+ million are no longer shocking. Capital campaigns of more than $1 billion are nearly commonplace. These contributions are in addition to the multi-billions that the state and federal governments provide annually. In short, higher education is now a major industry in North America and elsewhere. Once an industry or individual institutions reach these sizes, people naturally want to know how all of that money is being spent, especially as more and more is being requested. As an old saying goes, "If you take dad's money, you have to take his guff." In this case dad is the public, higher education is taking the money, and accountability is one of the consequences of that.

Most discussions of accountability refer to external aspects. However, for many institutions of higher education, public as well as private, internal accountability is most important. Internal accountability deals with balancing the budget. A lack of students results in less funding, leading to painful reduction decisions or perhaps even closing. Accountability in this sense has to do with attracting, retaining, and graduating good students. These types of data gathering activities may begin long before the students enter and conclude many years after they have graduated.

In addition to increased external and internal scrutiny, other possible explanations for the rise of accountability include the ability to easily gather, analyze, and report data using computers, as well as the general trend in our society to question everything. The reality is that all of these factors probably

have contributed to an increased interest in accountability. The remainder of the chapter will discuss different ways in which institutional researchers support accountability activities.

Accreditation

Institutional accreditation by regional (in the United States) or national (in most other countries) bodies is one of the most important, and sometimes the most challenging, ways in which institutional researchers become involved in accountability matters. A great deal of organization, data gathering, and reporting go into regional accrediting reports every five to 10 years, depending on the region and the institution. Even shorter periods are permitted in between updates. They often are conducted on an annual or biennial basis, depending on how well the institution performed during the prior visit. Regional accrediting agencies tend to want to review the numbers that institutional researchers compile and report: enrollments, enrollment trends, student and faculty qualifications, faculty workloads, grade distributions, space allocation, special studies conducted, etc. Additional questions raised during the site visits may generate even more requests for data, sometimes while the visiting team is still on campus. Writing the reports and dealing with the site visits frequently takes a good deal of institutional researchers' time during the period prior to and during the visit.

Why is regional accreditation so important? Why do colleges and universities spend so much time, energy, and money on these processes? Aside from institutional improvement, the purpose usually stated in public pronouncements, two major activities depend on accreditation: acceptance of transfer credit by other institutions and student eligibility for federal financial aid, including guaranteed loans. A few colleges and universities, prestigious ones in particular, may not be very concerned about the former, but virtually all institutions take the latter seriously. Without federal student financial aid, most campuses would be forced to reduce their budgets significantly because of declining enrollment, and a number would have to cease operating altogether.

The more informal, but no less serious, reason that accreditation is important has to do with institutional pride and perceived quality. A poor accreditation report implies major operational problems and poor leadership. More than one president and numerous other administrators have found themselves seeking other employment after negative accreditation reviews. So, if college and university personnel seem nervous about putting the report together and preparing for the visit, they have a right to be.   Their jobs, not to mention institutional and presidential prestige, could depend on a positive report from the visiting team.

The other type of accreditation is disciplinary accreditation, where an academic program is approved. These processes are much more focused than regional accreditation is, and the institutional research office may have little or no involvement. Sometimes the academic unit seeking accreditation will request support for compiling some of the required data. The amount of data requested,

as well as the data definitions, may vary substantially, so these efforts can be strenuous also, depending on the academic unit being considered for accreditation. In recent years the disciplinary accrediting bodies have become more outcomes oriented, encouraged by the federal and state governments. As a result, the burden has become to prove achievement in student learning in addition to more traditional input variables such as faculty qualifications, classroom and laboratory space, equipment, etc.

Why is disciplinary accreditation so important? In some cases employers do not know which programs are accredited by specific organizations; accreditation is simply inconsequential. In other cases it may be necessary to graduate from an accredited program in order to be eligible to be licensed in a specific field. Graduate schools sometimes favor alumni of accredited programs as well. In most instances, however, it comes down to faculty pride in the discipline. Accredited programs are recognized as being high quality ones by others in the field; it is worth the time, effort, and money involved for the local program to obtain such recognition. In addition, to the chagrin of many senior administrators, accreditation frequently is used as a lever to lobby for more human and financial resources for the program. This is one of the primary reasons for senior administrator announcements about the need to get disciplinary accreditation under control and reduce the number of units seeking disciplinary accreditation.

Program Approval

Most states have a program approval process for all new academic programs, often at private as well as public institutions. Certainly the publics must show that there is a need for a program and that it does not unnecessarily duplicate other programs. Usually the private institutions have a similar, albeit usually less intrusive, process as well. With off-campus distance learning, and multi-campus/multi-state systems like the University of Phoenix, states find themselves quite busy just monitoring and approving programs.

Often the institutional research role in program approval can be one more akin to market research than to more traditional activities.   For example, one might be asked to study census data, manpower projections, other workforce data, and/or to survey employer needs after summarizing existing programs at sister institutions. Program approval frequently requires student assessment data, often with a follow-up on the program several years after initial approval, to ensure that program objectives for student learning are being met as promised.

External Reporting

Although not necessarily directly related to accountability, probably the first and most common connection of institutional research professionals to it is through external reporting to federal and state agencies, private entities, and voluntary data sharing groups. The Damocles sword of student financial aid hangs over some of the federal reports that must be filed. Failure to report crime statistics, for example, can lead to a loss of eligibility for student financial

aid. Many of the other reports, such as the Integrated Postsecondary Education Data System (IPEDS) series, are supposedly voluntary; however, most institutions cooperate out of fear of federal government retribution. Once the data become readily available, now on easy-to-use compact disks or CDs, institutions can be and are compared to each other on various data elements. Accountability arises when the comparisons are used to set policy, usually at the state level.

In addition to federal reporting, the states typically gather a series of reports from the colleges and universities. Often the private institutions can choose whether or not to participate; however, the publics usually are not given an option. Private institutions may be more inclined to comply if state student financial aid hangs in the balance. The state-level data on such measures as graduation rates, admissions standards, student transfer rates, success of remedial students, etc. are used to set state policy. Increasingly these data are utilized in place of funding formulas to determine, at least in part, institutional allocations. Mirroring other areas of accountability, in recent years the focus has shifted from inputs to outcomes.

Private publications such as *U.S. News & World Report* and *Peterson's Guides* in the United States, *McLean's* in Canada, and *LeMonde* in France gather data from colleges and universities for supposedly informational purposes. Best known among these are the *U.S. News & World Report* rankings. Though theoretically voluntary, those institutions refusing to submit data will not be mentioned positively. Public statements to the contrary, most presidents like to see their institutions included among the top 10 or top 25 and share that information liberally. Those not ranked as highly discuss the methodological weaknesses of the rankings when questioned in public. Whether one agrees with such rankings or not, they constitute a very public form of accountability. The original data for these rankings most often are reported by institutional research offices.

The one truly voluntary type of reporting sometimes used for accountability purposes derives from voluntary data exchanges. There are a number of such exchanges in which institutions voluntarily agree to share information with other, similar ones. Typically the data are not identified by the name of the college or university. The data can be useful for management purposes. For instance, they may indicate that similar institutions with like numbers of students have fewer or more faculty, larger or smaller student service operations, etc. Usually this information is employed for internal decision-making; nevertheless, the resulting actions can be quite substantial in some cases, proving that accountability is not always externally driven.

Internal Program Review

Internal program review takes place when a program or unit undergoes a thorough study of its operations. While this sometimes occurs as a singular event or *ad hoc* study, normally program reviews occur on some kind of regularized schedule. These reviews tend to be more comprehensive than annual reports or other, more limited reviews, such as an assessment report. A