

Professional File

Number 120, Spring 2011

Association for Institutional Research

Supporting quality data and decisions for higher education.

Professional Development, Informational
Resources & Networking

The Rise of
Institutional
Effectiveness:
IR Competitor,
Customer,
Collaborator, or
Replacement?

Christina Leimer
Director, Institutional Research,
Assessment and Planning
California State University, Fresno
http://csufresno.edu/irap

Abstract

As Institutional Research (IR) moves beyond its fiftieth anniversary, a new profession, called Institutional Effectiveness (IE), is emerging. In some respects, IR and IE are similar. IE, though, appears to be taking the leadership role. What are the structure, purpose, and responsibilities of IE offices? What are the implications for the IR field and its practitioners? How can Presidents and Provosts determine which of the two will best meet their institutions' needs for evidence-based decision-making, assessment, continuous improvement, and accountability? A decade ago, Peterson (1999) proposed that IR's future challenge would go beyond institutional improvement to helping facilitate its redesign and transformation. In the current climate, IR itself may be being redesigned and transformed.

"IR is about reporting. We need more than that." This is what I was told by a self-study Chair at a university that had just completed its regional accreditation visit and was posting a position for a Director of Institutional Effectiveness. I had asked why they chose this route rather than expanding their institutional research (IR) office.

I've heard this perception of IR expressed before, but until that exchange I had not connected it with the growing number of Institutional Effectiveness (IE) offices that are emerging at U.S. colleges and universities. Presumably, this growth was spurred by regional accreditors' emphasis on using evidence for continuous



improvement of student learning, or outcomes assessment, and increasing external demands for accountability such as, most recently, the Spellings Commission report. But why, I wondered, wouldn't IR be able to satisfy this need? Why would a new office and new profession be required? Is IR meeting this need at some institutions? Has it in the past? Where executives have decided to develop IE at their institution, has it replaced IR, added to IR, or has it subsumed IR? How are the IE department and its responsibilities organized in relation to IR? What are the implications for the institutional research profession and its practitioners? How can institutions best utilize existing—and new resources to respond to the requirements of evidence-based decision-making, continuous improvement, outcomes assessment, and accountability? What structures and roles are best able to meet the institutional need?

As a foundation for thinking about these questions, I reviewed websites and literature about the IR field. The web review included 30 Institutional Research and 30 Institutional Effectiveness websites, the AIR and international IR professional association websites, and regional accreditors' standards, statements, or use of the term institutional effectiveness. A Google search of IR and IE websites, using search terms institutional research and institutional effectiveness was the basis for locating the sites. The first 30 sites that met the following criteria were selected. First, the office or department was solely named IR or IE. Frequently, IR or IE is part of a composite office or unit title, such as "Institutional Research, Assessment, and Planning," or "Institutional Effectiveness and Analysis." By excluding these composite offices and focusing on singly designated IR and IE offices, the distinctions and commonalities between IR and IE can be more clearly seen. Second, only U.S. higher education institutions were included. Additionally, in the Google search for IR offices, large public universities

primarily filled the first several pages. (Note: this did not occur when searching for IE offices.) To remedy what appeared to be a Google selection bias, other types of institutions shown in later pages were reviewed. This resulted in eight small (less than 10,000 headcount enrollment) and/or private colleges and universities being included in the IR web review. However, in 25 Google pages, only two community colleges appeared and both are system offices of very large institutions. They were included in the review.

This paper is not an attempt at systematic research; it is intended to raise questions. For instance, although a search engine selection bias that excludes community colleges is feasible, it may be that community colleges are less likely than other institutional types to have offices that are solely named IR. Additionally, it may be that IE offices are more evenly distributed across institutional types, since large public universities did not predominate in the IE search results. I note these search results here because they raise the possibility that decisions about developing and utilizing IR and IE differ by institutional type. However, I have not attempted to investigate further, leaving the questions open for subsequent research. Instead of providing definitive answers, this paper is intended to promote reflection and discussion among IR and IE professionals and executives who must make the decisions about how to best fulfill these responsibilities at their campus.

To lay the groundwork for discussion of the emergence of IE offices and the implications for IR, this paper first differentiates IR and IE roles and responsibilities. Subsequently, literature about the definition of IR and the state of the field at various points in time is utilized to put forth a macro-level view of the field's trajectory and suggest reasons why IR may not be meeting the needs addressed by IE offices. Utilizing results of the website review, the next section provides examples of IR and IE office

¹ Data were collected from websites in December 2007 and January 2008. Additional details are available from the author.



missions, structures, and relationship to each other at multiple institutions. This examination is intended to reveal whether IR is being replaced by or complemented by IE. The discussion then moves to the question of whether IR, IE, or both are necessary to meet today's changing needs and the skills required to carry out IE responsibilities. In the last section, I consider implications for IR professionals and the IR field as IE offices gain ground.

IR and IE: What's the Difference?

While acknowledging the diversity of IR responsibilities at individual colleges and universities, the common core of IR is providing data and conducting research and analysis that supports the institution's enrollment goals, planning, assessment, program review, policy formation, and decision-making as well as accountability and external reporting (Howard, 2001; Knight, 2003; Saupe, 1990). External reporting and providing data to internal customers is a responsibility of all IR offices I reviewed. Following are two examples of common IR mission statements. Although many such mission statements are longer than these and delineate more specific types of studies, they encompass the same elements.

University of Minnesota: The Office of Institutional Research (OIR) at the University of Minnesota designs research studies and collects and analyzes data to provide information for institutional planning, policy formation, and decision-making. Among OIR's primary responsibilities is ensuring the integrity of the data it provides to University decision-makers, governmental agencies, and other internal and external constituencies.

Missouri State University: The University has a 25-year heritage of institutional research activities and the Office of Institutional Research plays an

influential role in many aspects of the University administration. Duties and responsibilities of the Office of Institutional Research include designing, analyzing, and presenting data and institutional research for the purposes of institutional planning, policy decisions, institutional marketing, and student and program assessment. The Office of Institutional Research is also responsible for reporting institutional data to various state and federal agencies.

Most commonly, when IE mission statements differ from those of IR, it is by the role IE plays in planning, assessment, academic and administrative program review, and accreditation activities. IE personnel coordinate or develop these processes and/or monitor progress, assist faculty and staff in developing goals and objectives and evaluating progress, provide training, and document improvement. Mission statements for the Office of Institutional Effectiveness at Western Michigan University and University of Southern Mississippi are good examples of the responsibilities that most clearly distinguish IE from IR.

Western Michigan University: To provide leadership to develop, integrate, and improve academic program planning, institutional and program assessments, and accreditation review programs at Western Michigan University.

University of Southern Mississippi (USM): The Office of Institutional Effectiveness (IE) facilitates ongoing, integrated, institution-wide planning and evaluation processes. The staff of IE strives to be the University's source for assessment information, providing training and oversight of programs' assessment activities through annual assessment and periodic program reviews. IE is also



developing processes to analyze data with regards to the University's overall operations, providing information to lead departments across campus to make improvements. Institutional Effectiveness is dedicated to providing current, accurate, research-based guidance about assessment, program reviews, and institutional improvements.

A separate IR office exists on both of these campuses. However, some traditional IR activity is evident in the USM IE mission (i.e., analyzing data for overall operations). This raises the question as to what characteristics distinguish the two offices at this campus. The following USM IR mission statement reinforces the scope of IR as stated in the previous IR mission statements. IR responsibilities stop at providing data and research.

The Office of Institutional Research collects, archives, and maintains institutional data for the purpose of analyzing, distributing and presenting summary information. This information is used to support the decision-making process and the planning needs of all academic and administrative units within The University of Southern Mississippi. The Office of Institutional Research is responsible for reporting official data to the Board of Trustees for Institutions of Higher Learning for the State of Mississippi (IHL) and the Federal Government (Integrated Postsecondary Education Data System - IPEDS).

With their often extensive knowledge of institutional operations and goals and methodological expertise, why wouldn't IR offices take on the coordinating, facilitating, training, process developing, and oversight roles that IE offices appear to be assuming? Why would a separate office, that sometimes overlaps IR in its

analysis and data provision role (as illustrated by USM), be needed? Perhaps, it is the preference of IR professionals to limit their role. Or, perhaps the state of the IR field or IR's responsibilities or reputation on a campus leads executives to overlook or eliminate IR professionals from consideration when deciding how to meet this need. Based on the mission statements I reviewed and my knowledge of and experience in the IR field, I assume that, at present, IR is not widely taking on these responsibilities. The following section reviews this question historically and suggests possible reasons why.

IR Yesterday and Today

At its inception, IR appears to have had higher level responsibilities and to have reported higher in the organizational structure than it often does today. In some respects, those earlier responsibilities resemble today's IE. In fact, Sidney Suslow (1972) even used the term *institutional effectiveness* in his description of IR.

According to Suslow's Declaration on Institutional Research (1972), "The institutional researcher's basic role encompasses the systematic appraisal of the higher education effort. The institutional researcher serves higher education and, in turn, his institution through critical appraisal and careful investigation of its processes and programs" (Section 1, p. 2). He says its role is "evaluator of institutional programs" (Section 3, p. 9). As such, IR identifies "programs that vary to an unacceptable degree from what was planned, spells out probable causes of the variance, and arrays alternative actions to improve implementation of the program or suggests changes in objectives" (Section 3, p. 9). IR identifies emerging needs not being met by existing programs and identifies programs that may be operating as planned but whose objectives no longer justify resources (Suslow, 1972).

Somewhere between the mid-1970s and 1990, IR must have lost this breadth and level of responsibility, tending increasingly to focus more



narrowly on data provision and reporting functions. By 1990, in his address at the AIR Annual Forum, Sherr called on IR to play a new role in helping colleges and universities improve the quality of their programs. In addition to "gathering, collecting, analyzing and disseminating information," IR practitioners should become "problem consultants" (p. 36), identifying problems and suggesting alternatives for improvement. IR "should and must play a leading role" in transforming higher education culture to one of continuous improvement (p. 44). Middaugh (1990) too called for IR to go beyond counting and descriptions of inputs and "play a central supportive role" in institutions' introspective analysis of higher education processes (p. 190). Those that don't rise to this challenge, he predicted, will find themselves out of business. Yet, these calls to redefine IR identify as new activities that are similar to Suslow's 1972 formulation. Assuming that IR did function as Suslow stated, why might the activities of IR offices have narrowed in the intervening years?

Budget constraints of the early 1980s resulted in downsizing and eliminating IR offices and decentralizing IR responsibilities (Middaugh, 1990). Simultaneously, the press to account for resources increased reporting requirements, and consequently may have directed the labor of a smaller staff to these tasks. In a 1996 survey of Presidents' perceptions of the effectiveness of institutional research (Harrington, Christie, & Chen, 1996), respondents stated that underfunding and increased reporting requirements were barriers to effective IR. Nearly 20 years after Sherr and Middaugh's calls and more than a decade after the Presidents' acknowledgement of these barriers, the most common IR offices are one- or two-person shops (Volkwein, 2008), and reporting demands have not abated.

Perhaps, at many institutions, IR has become overburdened with reporting and database management. A common lament among practitioners is that these requirements demand too much of their time. Suslow (1972) warned, "To conserve its energies, institutional research should not perform the functions of generator or maintainer of routine and extensive data files...The limited resources of any institutional research effort can be rapidly dissipated if that effort becomes burdened with repetitive, routine data collection and large systems maintenance. If these functions are called institutional research, they are incorrectly named" (Section 2, p. 7). Today, however, these functions, modified a bit by improvements in technology, seem to be accepted as part of IR. When combined with the extreme staffing limitations—under which so many IR departments labor—taking up the mantle of continuous improvement would be unlikely.

IR's adaptation to the lack of staffing, reporting demands, and characteristics of some IR practitioners may have influenced this narrowing as well. For instance, downsizing and changes in responsibilities can require hiring staff with the skill sets needed to carry out modified tasks. Directors may hire for the ability to manage databases and accurately extract and manipulate data rather than statistical and evaluation expertise. Executives may hire Directors who can manage a technical office but are also expected to manipulate data themselves. In so doing, IR departments may have been reshaped to the extent that, when the desire or need for higher level analyses or recommendations arises, the department is incapable of responding.

According to Presidents, IR is effective in multiple dimensions but is most effective at providing and reporting data. In Harrington, Christie, and Chen's survey (1996), Presidents rated their IR office most highly on accuracy. Ninety-six percent agreed that their IR department provides accurate data and information. A little more than 90% agreed IR is effective at reporting. However, Presidents want more than this. Ninety percent expected analysis and interpretation to be part of IR reports. Twenty-nine percent urgently wanted recommendations with the report. Only one-third of Presidents did not expect recommendations from



IR. This study does not report how often Presidents get such information from IR. Provosts too expect IR to go beyond data collection and provide this type of high-level assistance (Okigbo, 2008). That IR provides data, rather than information, is a common complaint I hear about IR from users of its services. IR customers often do not know what the data mean or how to use them. They need and want data converted to information for their decision-making.

To the extent that interpretation is not provided, it could be the result of reporting demands and time constraints, lack of access and expertise of IR staff at some institutions, or adherence to an IR professional value. Interpreting data and making recommendations is more time-consuming and requires greater knowledge of the institution and the issue at hand than does producing and disseminating data tables. Consequently, both the time and expertise necessary to perform this function may be increasingly limited by the growth in reporting demands. Additionally, many IR professionals express concern that they are not part of the ongoing information flow. To the degree that this is the case, they cannot develop the contextual knowledge needed to make interpretations and recommendations (Chambers & Gerek, 2007).

Some IR practitioners resist interpreting data on the grounds that it compromises objectivity. The boundaries of the IR practitioner's role have been debated since the profession's inception. In his presidential address, Lasher (1983) noted IR professionals' desire to remain apolitical as a justification for providing data without interpretation. He says data become political when they are selected, organized, analyzed, and interpreted. Without these processes, however, data are practically useless. Lasher considers IR professionals to be in a unique position to influence an institution's direction by virtue of their ability to provide timely, useful management information. He says they must do so for IR to be vital. Suslow (1972) goes even further by saying that practitioners who have conducted objective study

and research should feel free to state preferences for alternatives or to make recommendations based on that research. As noted, Presidents, too, say they want interpretation and recommendations from IR. Harrington, Christie, and Chen's survey (1996) reveals a related characteristic. Fifty percent of Presidents said they perceive IR as reactive. Nearly 90% said they prefer IR to be proactive. Interpreting data and making recommendations is a proactive activity and requires initiative. Executives perceive one of IR's barriers to effectiveness to be IR professionals' lack of initiative. As Lasher (1983) cautioned, remaining on the sidelines is the way to make IR expendable.

Changes in responsibilities and influence may have been affected by IR's location in the organization as well. As previously mentioned, a common complaint among IR Directors is that they are not privy to information they need to be effective. IR started by reporting to the President. According to Taylor (1990), over time, it moved down in the organization as institutions grew in size and complexity and the President's role became external rather than one of internal management. To remain focused on the internal workings of the institution, IR began to report elsewhere. Most commonly, that shift in reporting moved to the Provost. However, any further down in the reporting structure, Taylor says, moves IR too far out of the routine information flow to gain the needed contextual information to perform effectively at a high level and makes it difficult for IR staff to influence decision-making.

Location in the organization may not be the only reason IR managers feel they lack needed information. The culture of the institution and personal style of the executives can impact this too. But location can subject IR to the old adage, "out of sight, out of mind."

The possibility that IR is, in many cases, isolated and removed from the heart of the institution is suggested by my website review. Most solely named IR offices appear to be freestanding, rather



than part of an umbrella unit that encompasses other "effectiveness-type" departments such as assessment or strategic planning. Noticeably, a little more than two-thirds of these websites did not link to their institution's strategic plan or an office that does strategic planning, or to assessment plans or an office that does assessment or any other related functions or responsibilities. To the extent that these offices and documents exist on those campuses, this absence of linking suggests to me that these IR offices are operating in isolation. Whether what actually happens in practice and whether the website adequately reflects that practice cannot be determined by such an external review. However, given the perennial complaint, within our profession and among accreditors, that people do not use data, make meaning from them, and then make change based on those data—then to the degree that this isolation exists, IR's lack of influence should not be a surprise. These IR websites do not show that IR is central to the institution, or even engaged with it. As stated above, it has been argued that such distancing is important to assure objectivity. The danger, however, is irrelevance to the core mission and vulnerability to downsizing. Standing apart does not put one in the path that leads to new or greater responsibility.

If IR today does not widely perform the role Suslow, Sherr, and Middaugh expound, it may be due to increased requirements for data reporting and management, inadequate staffing, budget cuts, organizational alignments that make the role unfeasible, or some of its own professional practices. But whatever the reasons, in the context of accreditors' increased push for continuous improvement and evidence-based decision-making, IE offices are developing, and a new profession is emerging to take on some of this responsibility.

IE Office Mission, Structure, and Relationship to IR

Based on the descriptions shown in mission statements, both IR and IE potentially work across

all divisions of the institution and in numerous areas. Both have an analysis role. At some institutions where both IR and IE offices exist, their missions overlap—usually in the realm of data provision. For both, the boundary appears to be where institutional decision-making and implementation takes hold. At that point, both IR and IE practitioners' roles end.

Within these commonalities, the breadth of IR and IE may be perceived differently. IR, as the primary institutional data provider, conducts research and data analyses for multiple purposes, not just improvement. IR work can include projections, budget analyses, workload studies, and other research that helps facilitate operations, develop policy, or improve programs. In this respect, IR appears broader than IE. On the other hand, IE appears broader than IR in that its role may involve assisting in establishing goals, advising on implementation of improvement initiatives, planning, facilitating, coordinating, oversight, and training in addition to data analysis.

IR and IE relationships. How these responsibilities are viewed vis-à-vis each other may "determine" the IR and IE office location and relative influence in the organization, or that configuration may "reflect" their relationship to each other. For instance, if IE is perceived as broader than IR, IR may be a support service to IE. If IR is perceived as broader, IE may be a department within or activity of IR. Or, they could be viewed as equivalent, horizontal processes but separate departments. Alternatively, an institution could choose to have only an IR office or only an IE office that encompasses both sets of responsibilities. In my website review, I found all but one of these structures and relationships: IR that encompasses most of the activities of IE. Although such an arrangement may exist, in no case did I find instances where IR appeared to be conducting training, facilitating, or coordinating IE processes. In cases where the term coordinating was used in IR mission statements, it tended to be



associated with external reporting or extracting, defining, or utilizing data and research between internal departments. Additionally, I found only one instance in which IE was a department within a unit called IR. In that case, nothing in the office description suggested that either IR or IE is developing processes, facilitating, or training. Both appear to be providing data and research to support IE-type functions.

At some institutions, an IE office exists instead of an IR office and appears to carry out only IR-type activities (e.g., at the University of West Alabama and Galveston College, respectively).

University of West Alabama: The Office of Institutional Effectiveness is responsible for a comprehensive program of data collection, analysis, and reporting for the University community. The office also prepares both routine and special research reports for the administration, faculty and staff, and provides assistance to faculty and staff in their research efforts."

Galveston College: The mission of the Institutional Effectiveness office is to support planning, decision-making, and assessment at Galveston College by providing information that is timely and of the highest quality. The Office of Institutional Effectiveness (IE) is a service oriented unit that provides information and proposes alternative solutions to support the decisionmaking process. The scope of the unit's responsibility is college-wide. The unit provides official reporting to external agencies, the Texas Higher Education Coordinating Board, and the entire College community including the Board of Trustees, and other academic and administrative units. The Institutional Effectiveness office also assumes the responsibility of

either generating or supervising the development of all official University data reports.

These IE offices appear to be IR by a different name. Whether an IR office previously existed but was renamed or whether an office responsible for IR-type activities began at these campuses under the name IE cannot be determined from the websites. Regardless, this type of arrangement can be viewed as IE replacing IR.

Some IE offices include IR activities but also some degree of assessment, accreditation, or planning oversight and coordination activity. The extent of that activity is difficult to determine from websites but examples include Coahoma Community College and the University of Richmond. At these campuses, no office specifically named IR exists. Instead, it is called IE. However, it appears that, at some point, the University of Richmond must have had an office called IR because the IE office URL is http://oir.richmond.edu. Again, in cases such as these, IE has replaced IR.

IE at Eastern Kentucky University (EKU) is an example of IR being subsumed. Until about 2002 or 2003, supporting outcomes assessment was part of IR's responsibilities at EKU. An IR staff member served on the University Assessment Committee and provided training to the faculty on developing learning objectives, selecting measures, and utilizing results; however, this arrangement did not last. While gearing up for their SACS reaccreditation, coordinating strategic planning and managing the accreditation process fell to a faculty member. Eventually, it was determined that a full-time administrative position was needed to handle the ongoing responsibilities rather than adding on to a faculty load. An Executive Director of Institutional Effectiveness and Research was hired to fill this need. An IE office was formed, and the IR staff member who had been supporting assessment became the Assistant Director of IE. The IR Director then began reporting to the Executive Director. Previously, the IR Director had reported to



the Provost (S. Street, Assistant Director, personal communication, August 27, 2008).

At institutions where separate IR and IE offices exist, they may be competitors, collaborators, or horizontally located independent departments. For example, at Western Michigan University there is an Institutional Effectiveness (IE) office and an office called Student Academic and Institutional Research (SAIR). Both are linked from the Provost's website and both are headed by Vice Provosts. However, neither the IE site nor the SAIR site links to the other—suggesting either independence, competition, or both. The IE Mission statement reads:

To provide leadership to develop, integrate, and improve academic program planning, institutional and program assessments, and accreditation review programs at Western Michigan University.

The SAIR mission statement, paraphrased here due to its length, states that it guides and coordinates university strategic planning and provides data and information for administrative decision-making and conducts external reporting. The missions seem to clearly distinguish the two, suggesting independence. However, one of the SAIR staff is an Assessment Programs Specialist, and SAIR's mission statement ends with "The Office relies on and works closely with other parts of the University that collect data used as the basis for Student Academic and Institutional Research's reports." This statement and the staff title may indicate collaboration through intentional overlap, but given that no specific department with which SAIR works closely is named or linked, these artifacts could instead reflect competition or duplication of effort. The degree to which IR and IE departments with this type of organizational alignment collaborate, compete, ignore, or serve one another is likely dependent on internal dynamics and individual relationships.

In some cases, both IR and IE are departments within a larger unit. This is the structure at Indiana University Purdue University Indianapolis (IUPUI)

where the umbrella organization is called Planning and Institutional Improvement (PII). IR and IE are clearly defined departments within PII, which also includes three other departments. The departments appear to be horizontally located within the unit. In configurations such as this one, the IR and IE relationship may be considered collaborative or customer/supplier, again depending on internal dynamics.

Yet another method of organizing is represented by Tidewater Community College. There, Institutional Effectiveness is the name of a unit that includes two departments. One of those departments is Institutional Research, and the other is Student Outcomes Assessment. In this arrangement, IE is the overarching title. The unit manager is the Director of Institutional Effectiveness, who has an Assistant Director of IE. Other positions in the office are designated with a title followed by the qualifiers Student Outcomes Assessment or *Institutional Research*. This arrangement clearly elevates IE above IR. Like Outcomes Assessment, IR appears to be a tool in service of institutional effectiveness in its broader, process sense, rather than in the sense of IE as an office. I would expect this arrangement to facilitate collaboration.

In my web review, I rarely saw the term institutional effectiveness mentioned in IR mission statements although activities that might be considered components of IE were frequently named (e.g., strategic planning, outcomes assessment, and program review). Where IR mission or responsibilities statements did specifically include institutional effectiveness or continuous improvement, the IR role is supporting IE by providing data, information, or methodological consultations to individuals engaged in effectiveness activities or the staff of an office called IE.

Whether IE will replace, subsume, or work hand-in-hand with IR is too early to tell. As shown, examples of each of these scenarios exist. In addition, while IE offices are emerging, IR staffing has grown as well (Volkwein, 2011). Given this



finding, perhaps IR expansion, rather than IE formation, is the path some institutions are taking to meet continuous improvement needs. Or, possibly this IR growth is responding to other needs such as reporting, accreditation, or IE office support.

IR, IE, or Both—What Best Meets Changing Needs?

With the increased calls for accountability, continuous improvement, assessment, and evidence-based decision-making, often in the context of shrinking budgets, colleges and universities need to utilize the resources at their disposal in the most effective way. As such, they are grappling with how best to respond to these external pressures and requirements and considering what structures and roles are most likely to meet the need.

Develop a new office or expand an existing one? How would one decide what option would best utilize resources while most effectively meeting institutional need? According to Nichols and Wolff (1990), developing a new office with a new name keeps perceptions of an existing office from affecting the new activities and avoids assigning responsibilities to an existing staff that likely does not possess the needed skills. With a new name, a clear focus for the office can be established, and new expectations can be clearly defined and communicated. The office can be strategically positioned where it would be most influential in carrying out its activities, if the current office is not.

Expanding an existing office takes advantage of an infrastructure that is already in place (Nichols & Wolff, 1990). Consequently, start-up time may be quicker and initial cost lower than developing a new office. Additionally, it would build on the institution's existing knowledge-base. If the existing office reports to Academic Affairs and works effectively with academic units, and the new responsibilities are to include outcomes assessment and program review, change may be more smoothly and easily incorporated.

Modifying the title of an existing office to reflect its expansion or new direction is an option, as is joining a new and existing office, or multiple existing offices, into a collaborative unit. Hybrid offices, or units, with titles such as Institutional Research, Assessment, and Planning; Institutional Effectiveness and Analysis; or Institutional Effectiveness, Planning, and Research combine these functions. In fact, such combinations are common (Saupe, 1990). In some cases, these configurations seem only to reflect that data and information are provided for these purposes. In others, it is an attempt to bring together complementary functions and develop an integrated approach to planning, continuous improvement, and accountability. However, this option is not a solution that can avoid additional resource allocation. Such a merging may eliminate unnecessary duplication of staff, tasks, or physical space, if such exists, and may promote efficiencies and allow allocation shifts, but almost certainly there will be gaps that must be recognized and addressed to assure the new structure serves its purpose effectively.

Either choice involves infrastructure, integration, and staffing issues that must be explicitly anticipated and addressed. For instance, one quandary is how to integrate responsibilities that require different skill sets, tasks, and perspectives. Offices may work at higher or lower levels of the organization with different clientele. IR responsibilities are typically institutional-level while student outcomes assessment may be focused on departments. Consequently, IR may work with fewer and higher level administrators and assessment with a larger number of mid-level managers, faculty, and line staff. IR work is predominately with computers and data while assessment and planning work includes a considerable amount of discussion. One group requires more solitude and concentration while the other needs considerable phone and in-person interaction that can be disruptive if housed in the same space. Consideration must be given to whether these functions should be separate physically or in the reporting line or how they could be successfully



joined in a single unit. Infrastructure and integration issues are numerous and more complicated with mergers than when developing or transitioning a single department.

Understanding the skills needed to perform new responsibilities effectively is critical because personnel who possess the requisite skill sets must be hired or existing staff must be trained. If choosing the latter, existing responsibilities must be transferred to allow time for training and taking on new tasks. Additionally, it is possible that existing staff possess the needed skills but have been underutilized in this respect. This situation too would require transferring existing responsibilities in addition to accommodating role shifts. Adding such responsibilities to an existing office without increasing its capacity or recognizing and modifying structural issues is untenable. It can overstretch staff, leave responsibilities unfilled, and create stress and morale problems that lead to employee turnover.

To assure that the chosen configuration has adequate authority and access to information to be effective, the required level of management should be carefully considered in light of the institution's culture. Based on my web review, there are more management positions that are higher than Director-level in IE than in IR. IR was most commonly led by a Director. IE too is frequently led by a Director, but less often than IR. Associate Provosts or Associate Vice Presidents are more commonly found in IE than IR. In the web sample, only 23% of IR management positions were Assistant Vice President or higher compared to 43% of IE management positions. For some IR professionals with the requisite skills, IE may be a remedy to the often-heard complaint about IR's short career ladder (Johnson, 1982; Knight & Leimer, 2010). Advancement could mean moving out of IR and into IE. Such a move could offer new challenges and breadth of tasks and could broaden one's skills.

Skills needed for IE. What skills are needed to work effectively in IE? That may depend on the level of employment and the specific tasks assigned to IE

at a particular institution. Assuming a definition of IE that encompasses student outcomes assessment, program review, and accreditation, the following are necessary to varying degrees: research methods and statistical skills; knowledge of accreditation requirements and assessment methods and processes; strong leadership skills; the ability to facilitate groups, build consensus among multiple constituencies, negotiate, communicate in nontechnical language, coordinate people and projects; and, at the management level, management skills that go beyond directing a technical staff. A recent collective contribution (on the ASSESS listsery) to the question about skills needed to work in assessment compiled a list barely short of walking on water: sensitivity, open-mindedness, flexibility, listening, enthusiasm, commitment to learning, sense of humor, ability to see another's perspective, ability to build others' self-confidence, creativity, team-building, problem-solving, a thick skin, tolerance for ambiguity, patience, ability to motivate others, ability to teach, ability to build trust, and the ability to use data to tell a compelling story. Technical skills, though assumed by some of the contributors, did not even make the list until the oversight was pointed out. Once it was, some participants still downplayed this skill set in favor of interpersonal abilities.

A brief review of job postings for institutional effectiveness management positions included institutional research and outcomes assessment experience, knowledge of and/or experience with accreditation processes, knowledge of research and statistical methods, experience with statistical software and database management, analytical skills, organizational, project management and facilitation skills, leadership skills, strong interpersonal and written and oral communication skills, and demonstrated ability to work effectively with faculty and administrators. From personal experience managing a blended, or hybrid, office that includes some of the elements of IE offices, I add an additional requirement also pointed out by



Nichols (1990): high tolerance for the visibility that comes with a high-profile position on campus. For institutional researchers used to laboring in relative obscurity, this can be a big adjustment.

IR practitioners possess this knowledge and many of these skills, especially the technical and analytical skills. The interpersonal, management, and leadership skills are not as common in IR job postings, yet demonstrating these abilities may help advance one's career and be a valuable tool in elevating IR from a technical to a leadership level in the organization. But how can one gain these skills?

Currently, experienced Assessment Coordinators or Directors are few and colleges and universities are often best served by growing their own. The field may still be new enough to learn assessment on the job, thereby broadening one's skill set. Assessment conferences and workshops are numerous throughout the year and all across the U.S. AIR began an Assessment Institute in 2008, and the AIR Forum includes tracks on assessment and academic programs. Webinars too are a way to build one's assessment knowledge. As for leadership skills, Deans, Provosts, Vice Presidents, and Presidents benefit from training and mentoring programs such as those offered through the American Council for Education (ACE) and Harvard University, but I know of none that are specifically targeted to staff or managers of IR or IE. Some schools of business offer manager and executive workshops or short-term classes for a general audience that may be useful. For women in higher education administration, Higher Education Resource Services (HERS) may be an option.

I know of no conferences on institutional effectiveness or professional organizations dedicated to IE. I can find venues for IE components: outcomes assessment organizations and conferences, planning through the Society for College and University Planning (SCUP)—though its focus has been primarily physical facilities rather than strategic or academic planning—and accreditation conferences, workshops, and

networking via the accreditation associations. AIR Forum tracks cover a wide range of higher education issues, including assessment and planning. Another track mentions organizational management and change, topics that may be helpful to executives deciding to institute IR, IE, or some combination as well as those charged with the implementation. But, the Forum happens once per year, sessions are short and, on some topics, sparse, and quality varies. In my web review, I noticed that the European AIR has a different mission than all other IR professional associations. It is an association for professionals in higher education management and for academics researching management issues. Maybe we can learn something from the European AIR that could be applied to our changing circumstances and needs. Such knowledge may be helpful to those IR managers who have been given responsibility for assessment, planning, or accreditation and are wondering how to integrate and manage it all.

Implications for IR Practitioners and the Profession

IR professionals who are concerned about higher education, the IR profession, and our own career advancement and opportunities, should pay attention to the emergence of IE. For some executives deciding how to meet continuous improvement and accountability needs of colleges and universities, IR is not the preferred choice. Evidence exists that some institutions are supplanting IR by giving the title IE to traditional IR activities, or subordinating IR to a new IE office.

Some might consider a departmental title change to be cosmetic, and it may well be at some institutions. In those cases, perhaps the change is inconsequential. It may be only a sign of the times (i.e., accreditation's emphasis on institutional effectiveness gets reflected in a name). However, what if there is more to the name change than that? Perhaps it reflects new institutional priorities or the need for a fresh approach or application of different



skills than those traditionally associated with IR. Maybe it is an attempt to disassociate the activities from the perception of IR as reporting, as noted in the example of the self-study Chair at the beginning of this paper. How is the IR field perceived outside of the field? Not so much in terms of how effectively it carries out its responsibilities, but what its roles and responsibilities are.

The general perception of a field can help or hinder anyone in that field regardless of his or her individual circumstances. Our salaries, the length of the career ladder, and access to challenging opportunities are determined at least in part by perceptions of characteristics of practitioners in a field and the field's perceived value. Consequently, the subordination of IR to IE may be of greater concern than the renaming of IR to IE. In some cases, what are coming to be defined as IE responsibilities have considerable overlap with IR responsibilities, yet the leadership or executive functions appear to be assigned to IE offices. When IR and IE offices exist at the same institution, both are often located within Academic Affairs. Given this location, and the fact that an IR office existed before an IE office, why would IR not be given the leadership responsibilities rather than developing another office or profession to assume them? Without these responsibilities, IR risks becoming increasingly defined by its reporting and data support functions, especially given increasing reporting requirements such as those of the Higher Education Opportunity Act.

As IR moves further away from executive decision makers by the insertion of a superordinate departmental structure, the possibility that IR can be the evaluator of institutions, as Suslow described, is diminished or extinguished. To perform this role, contextual knowledge that can only be gained through being part of the high-level information flow is essential. If that access is given to a new profession or office, IR's influence wanes. Ultimately, that can affect its perceived value to the organization.

Given these potential consequences, it is important to know how the decision to start IE offices is being made. Are any perceptions or experiences of IR contributing to these decisions? Are decisions being made in a way that IR can influence them? Perhaps by making targeted changes in hiring, training, or allocating time or resources differently? Without knowledge of the decision-making process, we cannot anticipate IR's trajectory—whether IR is a profession headed toward obsolescence, one that will need to compete with a similar office in times of budget cuts, or whether it is on sure footing even if perceived as less central to decision-making.

Ways to meet these challenges should be discussed within the IR field. More research into the IE office trend is needed, whether AIR sponsored or taken up by individuals on their own. AIR advocacy to higher education executives may be beneficial toward securing adequate IR funding, institutional placement, and dismantling of other institutional barriers that would facilitate IR's role as evaluator of institutional processes and programs. Professional development for IR practitioners, especially managers and analysts who desire to advance in the field, should move beyond technical training to leadership skills that can help them proactively plan and negotiate for a strong, healthy IR at every institution where IR exists.

Organizing for continuous improvement, assessment, accreditation, and accountability can be costly. Executives are grappling with how best to meet the need. A decade ago, Peterson (1999) said IR's upcoming challenge may surpass helping institutions improve. Instead, IR will help facilitate "institutional redesign and transformation" (p. 84). In the current climate, IR itself may be part of this redesign and transformation. We can rise to Suslow's declaration, even move beyond it to Peterson's transformative stance. But doing so requires leadership, from each of us and from our professional association. But after all, leadership is what Provosts and Presidents are asking of us.



Bibliography

- Chambers, S., & Gerek, M. L. (2007, February 26). IR activities. *IR Applications, 12*. Retrieved from http://www.airweb.org/page.asp?page=1154
- Harrington, C. F., Christie, R. L., & Chen, H. Y. (1996, May). Does institutional research really contribute to institutional effectiveness? Perceptions of institutional research effectiveness as held by college and university presidents. Paper presented at the 36th AIR Annual Forum, Albuquerque, NM.
- Howard, R. D. (2001). *Institutional research: Decision* support in higher education. Tallahassee, FL: Association for Institutional Research.
- Johnson, M. D. (1982, Spring). Career development in institutional research. *AIR Professional File, 12*. Retrieved from http://www.airweb.org/page.asp?page=73&apppage=85&id=12
- Knight, W. E. (2003). *The primer for institutional research*. Tallahassee, FL: Association for Institutional Research.
- Knight, W. E., & Leimer, C. (2010). Will IR staff stick? An exploration of institutional researchers' intentions to remain in or leave their jobs. Research in Higher Education, 51(2), 109–131.
- Lasher, W. F. (1983, May). *The state of the association and the IR profession*. Presidential address at AIR Annual Forum, Toronto, Canada.
- Middaugh, M. F. (1990). The nature and scope of institutional research: The changing face of the IR profession. In *Institutional research: Its place in the 1990's. Proceedings of the Annual Conference of the Northeast Association for Institutional Research (17th, Albany, New York, October 21–23, 1990). (ED346778)*
- Nichols, J. O. (1990, Summer). The role of institutional research in implementing institutional effectiveness or outcomes assessment. *AIR Professional File, 37*.

 Retrieved from http://www.airweb.org/page.asp?page=73&apppage=85&id=37

- Nichols, J. O., & Wolff, L. A. (1990, Summer).

 Organizing for assessment. In J. B. Presley (Ed.),

 Organizing effective institutional research offices.

 New Directions for Institutional Research, 66. San

 Francisco: Jossey-Bass Publishers.
- Okigbo, C. (2008, May). Adapting to meet new challenges: Moving institutional research forward. Paper presented at the 48th AIR Annual Forum, Seattle, WA.
- Peterson, M. W. (1999, Winter). The role of institutional research: From improvement to redesign. *New Directions for Institutional Research*, 104. San Francisco: Jossey-Bass Publishers.
- Saupe, J. L. (1990). *The functions of institutional research* (2nd ed.). Tallahassee, FL: Association for Institutional Research. Retrieved from http://www.airweb.org/page.asp?page=85
- Sherr, L. A. (1990). Quality in higher education—A verb, not a noun. In J. J. Endo (Ed.), *Institutional research: Coming of age. General session presentations [at the] Annual Forum [of the] Association for Institutional Research (30th, Louisville, KY, May 13–16, 1990). (ED328184)*
- Suslow, S. (1972). A declaration on institutional research. Tallahassee, FL: Association for Institutional Research. Retrieved from http://www.airweb.org/page.asp?page=82
- Taylor, A. L. (1990, Summer). Options for location in the organizational structure. In J. B. Presley (Ed.), Organizing effective institutional research offices. New Directions for Institutional Research, 66. San Francisco: Jossey-Bass Publishers.
- Volkwein, J. F. (2008). The foundations and evolution of institutional research. In D. G. Terkla (Ed.), Institutional research: More than just data. New Directions for Institutional Research, 141. San Francisco: Jossey-Bass Publishers.
- Volkwein, J. F. (2011, March 24). *IR roles,* responsibilities and reporting lines. [Webinar]. Tallahassee, FL: Association for Institutional Research, Professional Development Services Committee.



The AIR Professional File—1978-2011

A list of titles for the issues printed to date follows. Most issues are "out of print," but are available as a PDF through the AIR Web site at http://www.airweb.org/publications.html. Please do not contact the editor for reprints of previously published Professional File issues.

Organizing for Institutional Research (J.W. Ridge; 6 pp; No. 1)

Dealing with Information Systems: The Institutional Researcher's Problems and Prospects (L.E. Saunders; 4 pp; No. 2)

Formula Budgeting and the Financing of Public Higher Education: Panacea or Nemesis for the 1980s? (F.M. Gross; 6 pp; No. 3)

Methodology and Limitations of Ohio Enrollment Projections (G.A. Kraetsch; 8 pp; No. 4)

Conducting Data Exchange Programs (A.M. Bloom & J.A. Montgomery; 4 pp; No. 5)

Choosing a Computer Language for Institutional Research (D. Strenglein; 4 pp; No. 6)

Cost Studies in Higher Education (S.R. Hample; 4 pp; No. 7)

Institutional Research and External Agency Reporting Responsibility (G. Davis; 4 pp; No. 8)

Coping with Curricular Change in Academe (G.S. Melchiori; 4 pp; No. 9) Computing and Office Automation—Changing Variables (E.M. Staman; 6 pp; No. 10)

Resource Allocation in U.K. Universities (B.J.R. Taylor; 8 pp; No. 11)

Career Development in Institutional Research (M.D. Johnson; 5 pp; No 12)

The Institutional Research Director: Professional Development and Career Path (W.P. Fenstemacher; 6pp; No. 13)

A Methodological Approach to Selective Cutbacks (C.A. Belanger & L. Tremblay; 7 pp; No. 14)

Effective Use of Models in the Decision Process: Theory Grounded in Three Case Studies (M. Mayo & R.E. Kallio; 8 pp; No. 15)

Triage and the Art of Institutional Research (D.M. Norris; 6 pp; No. 16)

The Use of Computational Diagrams and Nomograms in Higher Education (R.K. Brandenburg & W.A. Simpson; 8 pp; No. 17)

Decision Support Systems for Academic Administration (L.J. Moore & A.G. Greenwood; 9 pp; No. 18)

The Cost Basis for Resource Allocation for Sandwich Courses (B.J.R. Taylor; 7 pp; No. 19)

Assessing Faculty Salary Equity (C.A. Allard; 7 pp; No. 20)

Effective Writing: Go Tell It on the Mountain (C.W. Ruggiero, C.F. Elton, C.J. Mullins & J.G. Smoot; 7 pp; No. 21)

Preparing for Self-Study (F.C. Johnson & M.E. Christal; 7 pp; No. 22)

Concepts of Cost and Cost Analysis for Higher Education (P.T. Brinkman & R.H. Allen; 8 pp; No. 23)

The Calculation and Presentation of Management Information from Comparative Budget Analysis (B.J.R. Taylor; 10 pp; No. 24)

The Anatomy of an Academic Program Review (R.L. Harpel; 6 pp; No. 25)

The Role of Program Review in Strategic Planning (R.J. Barak; 7 pp; No. 26)

The Adult Learner: Four Aspects (Ed. J.A. Lucas; 7 pp; No. 27)

Building a Student Flow Model (W.A. Simpson; 7 pp; No. 28)

Evaluating Remedial Education Programs (T.H. Bers; 8 pp; No. 29)

Developing a Faculty Information System at Carnegie Mellon University (D.L. Gibson & C. Golden; 7 pp; No. 30)

Designing an Information Center: An Analysis of Markets and Delivery Systems (R. Matross; 7 pp; No. 31)

Linking Learning Style Theory with Retention Research: The TRAILS Project (D.H. Kalsbeek; 7 pp; No. 32)

Data Integrity: Why Aren't the Data Accurate? (F.J. Gose; 7 pp; No. 33)

Electronic Mail and Networks: New Tools for Institutional Research and University Planning (D.A. Updegrove, J.A. Muffo & J.A. Dunn, Jr.; 7pp; No. 34)

Case Studies as a Supplement to Quantitative Research: Evaluation of an Intervention Program for High Risk Students (M. Peglow-Hoch & R.D. Walleri; 8 pp; No. 35)

Interpreting and Presenting Data to Management (C.A. Clagett; 5 pp; No. 36)

The Role of Institutional Research in Implementing Institutional Effectiveness or Outcomes Assessment (J.O. Nichols; 6 pp; No. 37)

Phenomenological Interviewing in the Conduct of Institutional Research: An Argument and an Illustration (L.C. Attinasi, Jr.; 8 pp; No. 38)

Beginning to Understand Why Older Students Drop Out of College (C. Farabaugh-Dorkins; 12 pp; No. 39)

A Responsive High School Feedback System (P.B. Duby; 8 pp; No. 40)

Listening to Your Alumni: One Way to Assess Academic Outcomes (J. Pettit; 12 pp; No. 41)

Accountability in Continuing Education Measuring Noncredit Student Outcomes (C.A. Clagett & D.D. McConochie; 6 pp; No. 42)

Focus Group Interviews: Applications for Institutional Research (D.L. Brodigan; 6 pp; No. 43)

An Interactive Model for Studying Student Retention (R.H. Glover & J. Wilcox; 12 pp; No. 44)

Increasing Admitted Student Yield Using a Political Targeting Model and Discriminant Analysis: An Institutional Research Admissions Partnership (R.F. Urban; 6 pp; No. 45)

Using Total Quality to Better Manage an Institutional Research Office (M.A. Heverly; 6 pp; No. 46)

Critique of a Method For Surveying Employers (T. Banta, R.H. Phillippi & W. Lyons; 8 pp; No. 47)

Plan-Do-Check-Act and the Management of Institutional Research (G.W. McLaughlin & J.K. Snyder; 10 pp; No. 48)

Strategic Planning and Organizational Change: Implications for Institutional Researchers (K.A. Corak & D.P. Wharton; 10 pp; No. 49)

Academic and Librarian Faculty: Birds of a Different Feather in Compensation Policy? (M.E. Zeglen & E.J. Schmidt; 10 pp; No. 50)

Setting Up a Key Success Index Report: A How-To Manual (M.M. Sapp; 8 pp; No. 51)

Involving Faculty in the Assessment of General Education: A Case Study (D.G. Underwood & R.H. Nowaczyk; 6 pp; No. 52)

Using a Total Quality Management Team to Improve Student Information Publications (J.L. Frost & G.L. Beach; 8 pp; No. 53)

Evaluating the College Mission through Assessing Institutional Outcomes (C.J. Myers & P.J. Silvers; 9 pp; No. 54)

Community College Students' Persistence and Goal Attainment: A Five-year Longitudinal Study (K.A. Conklin; 9 pp; No. 55)

What Does an Academic Department Chairperson Need to Know Anyway? (M.K. Kinnick; 11 pp; No. 56)

Cost of Living and Taxation Adjustments in Salary Comparisons (M.E. Zeglen & G. Tesfagiorgis; 14 pp; No. 57)

The Virtual Office: An Organizational Paradigm for Institutional Research in the 90's (R. Matross; 8 pp; No. 58)

Student Satisfaction Surveys: Measurement and Utilization Issues (L. Sanders & S. Chan; 9 pp; No. 59)

The Error Of Our Ways; Using TQM Tactics to Combat Institutional Issues Research Bloopers (M.E. Zeglin; 18 pp; No. 60)

How Enrollment Ends; Analyzing the Correlates of Student Graduation, Transfer, and Dropout with a Competing Risks Model (S.L. Ronco; 14 pp; No. 61)

Setting a Census Date to Optimize Enrollment, Retention, and Tuition Revenue Projects (V. Borden, K. Burton, S. Keucher, F. Vossburg-Conaway; 12 pp; No. 62)



The AIR Professional File—1978-2011

- Alternative Methods For Validating Admissions and Course Placement Criteria (J. Noble & R. Sawyer; 12 pp; No. 63)
- Admissions Standards for Undergraduate Transfer Students: A Policy Analysis (J. Saupe & S. Long; 12 pp; No. 64)
- IR for IR–Indispensable Resources for Institutional Researchers: An Analysis of AIR Publications Topics Since 1974 (J. Volkwein & V. Volkwein; 12 pp; No. 65)
- Progress Made on a Plan to Integrate Planning, Budgeting, Assessment and Quality Principles to Achieve Institutional Improvement (S. Griffith, S. Day, J. Scott, R. Smallwood; 12 pp; No. 66)
- The Local Economic Impact of Higher Education: An Overview of Methods and Practice (K. Stokes & P. Coomes; 16 pp; No. 67)
- Developmental Education Outcomes at Minnesota Community Colleges (C. Schoenecker, J. Evens & L. Bollman: 16 pp; No. 68)
- Studying Faculty Flows Using an Interactive Spreadsheet Model (W. Kelly; 16 pp; No. 69)
- Using the National Datasets for Faculty Studies (J. Milam; 20 pp; No. 70) Tracking Institutional leavers: An Application (S. DesJardins, H. Pontiff; 14 pp; No. 71)
- Predicting Freshman Success Based on High School Record and Other Measures (D. Eno, G. W. McLaughlin, P. Sheldon & P. Brozovsky; 12 pp; No. 72)
- A New Focus for Institutional Researchers: Developing and Using a Student Decision Support System (J. Frost, M. Wang & M. Dalrymple; 12 pp; No. 73)
- The Role of Academic Process in Student Achievement: An Application of Structural Equations Modeling and Cluster Analysis to Community College Longitudinal Data1 (K. Boughan, 21 pp; No. 74)
- A Collaborative Role for Industry Assessing Student Learning (F. McMartin; 12 pp; No. 75)
- Efficiency and Effectiveness in Graduate Education: A Case Analysis (M. Kehrhahn, N.L. Travers & B.G. Sheckley; No. 76)
- ABCs of Higher Education-Getting Back to the Basics: An Activity-Based Costing Approach to Planning and Financial Decision Making (K. S. Cox, L. G. Smith & R.G. Downey; 12 pp; No. 77)
- Using Predictive Modeling to Target Student Recruitment: Theory and Practice (E. Thomas, G. Reznik & W. Dawes; 12 pp; No. 78)
- Assessing the Impact of Curricular and Instructional Reform A Model for Examining Gateway Courses1 (S.J. Andrade; 16 pp; No. 79)
- Surviving and Benefitting from an Institutional Research Program Review (W.E. Knight; 7 pp; No. 80)
- A Comment on Interpreting Odds-Ratios when Logistic Regression Coefficients are Negative (S.L. DesJardins; 7 pp; No. 81)
- Including Transfer-Out Behavior in Retention Models: Using NSC EnrollmentSearch Data (S.R. Porter; 16 pp; No. 82)
- Assessing the Performance of Public Research Universities Using NSF/NCES Data and Data Envelopment Analysis Technique (H. Zheng & A. Stewart; 24 pp; No. 83)
- Finding the 'Start Line' with an Institutional Effectiveness Inventory (S. Ronco & S. Brown; 12 pp; No. 84)
- Toward a Comprehensive Model of Influences Upon Time to Bachelor's Degree Attainment (W. Knight; 18 pp; No. 85)
- Using Logistic Regression to Guide Enrollment Management at a Public Regional University (D. Berge & D. Hendel; 14 pp; No. 86)
- A Micro Economic Model to Assess the Economic Impact of Universities: A Case Example (R. Parsons & A. Griffiths; 24 pp; No. 87)
- Methodology for Developing an Institutional Data Warehouse (D. Wierschem, R. McBroom & J. McMillen; 12 pp; No. 88)
- The Role of Institutional Research in Space Planning (C.E. Watt, B.A. Johnston. R.E. Chrestman & T.B. Higerd; 10 pp; No. 89)
- What Works Best? Collecting Alumni Data with Multiple Technologies (S. R. Porter & P.D. Umback; 10 pp; No. 90)Caveat Emptor: Is There a Relationship between Part-Time Faculty Utilization and Student Learning Outcomes and Retention? (T. Schibik & C. Harrington; 10 pp; No. 91)

- Ridge Regression as an Alternative to Ordinary Least Squares: Improving Prediction Accuracy and the Interpretation of Beta Weights (D. A. Walker; 12 pp; No. 92)
- Cross-Validation of Persistence Models for Incoming Freshmen (M. T. Harmston; 14 pp; No. 93)
- Tracking Community College Transfers Using National Student Clearinghouse Data (R.M. Romano and M. Wisniewski; 14 pp; No. 94)
- Assessing Students' Perceptions of Campus Community: A Focus Group Approach (D.X. Cheng; 11 pp; No. 95)
- Expanding Students' Voice in Assessment through Senior Survey Research (A.M. Delaney; 20 pp; No. 96)
- Making Measurement Meaningful (J. Carpenter-Hubin & E.E. Hornsby, 14 pp; No. 97)
- Strategies and Tools Used to Collect and Report Strategic Plan Data (J. Blankert, C. Lucas & J. Frost; 14 pp; No. 98)
- Factors Related to Persistence of Freshmen, Freshman Transfers, and Nonfreshman Transfer Students (Y. Perkhounkova, J. Noble & G. McLaughlin; 12 pp; No. 99)
- Does it Matter Who's in the Classroom? Effect of Instructor Type on Student Retention, Achievement and Satisfaction (S. Ronco & J. Cahill; 16 pp; No. 100)
- Weighting Omissions and Best Practices When Using Large-Scale Data in Educational Research (D.L. Hahs-Vaughn; 12 pp; No. 101)
- Essential Steps for Web Surveys: A Guide to Designing, Administering and Utilizing Web Surveys for University Decision-Making (R. Cheskis-Gold, E. Shepard-Rabadam, R. Loescher & B. Carroll; 16 pp., No. 102)
- Using a Market Ratio Factor in Faculty Salary Equity Studies (A.L. Luna; 16 pp;, No. 103)
- Voices from Around the World: International Undergraduate Student Experiences (D.G. Terkla, J. Etish-Andrews & H.S. Rosco; 15 pp., No. 104)
- Program Review: A tool for Continuous Improvement of Academic Programs (G.W. Pitter; 12 pp; No. 105)
- Assessing the Impact of Differential Operationalization of Rurality on Studies of Educational Performance and Attainment: A Cautionary Example (A. L. Caison & B. A. Baker; 16pp; No. 106)
- The Relationship Between Electronic Portfolio Participation and Student Success (W. E. Knight, M. D. Hakel & M. Gromko; 16pp; No. 107)
- How Institutional Research Can Create and Synthesize Retention and Attrition Information (A. M. Williford & J. Y. Wadley; 24pp; No. 108)
- Improving Institutional Effectiveness Through Programmatic Assessment (D. Brown; 16pp; No. 109)
- Using the IPEDS Peer Analysis System in Peer Group Selection (J. Xu; 16pp; No. 110)
- Improving the Reporting of Student Satisfaction Surveys Through Factor Analysis (J. Goho & A Blackman; 16pp; No. 111)
- Perceptions of Graduate Student Learning via a Program Exit Survey (R. Germaine & H. Kornuta; 16pp; No. 112)
- A Ten-Step Process for Creating Outcomes Assessment Measures for an Undergraduate Management Program: A Faculty-Driven Process (S. Carter; 18pp; No. 113)
- Institutional Versus Academic Discipline Measures of Student Experience: A Matter of Relative Validity (S. Chatman; 20pp; No. 114)
- In Their Own Words: Effectiveness in Institutional Research (W. E. Knight; 20pp; No. 115)
- Alienation and First-Year Student Retention (R. Liu; 18 pp; No. 116)
- Estimating the Economic Impact of Higher Education: A Case Study of the Five Colleges in Berks County, Pennsylvania (M. D'Allegro & L. A. Paff; 17 pp; No. 117)
- Improving the Way Higher Education Institutions Study Themselves: Use and Impact of Academic Improvement Systems (K. K. Bender, J. L. Jonson & T. J. Siller; 23pp; No. 118)
- Top-Down Versus Bottom-Up Paradigms of Undergraduate Business School Assurance of Learning Techniques (R. Priluck & J. Wisenblit; 15pp; No. 119)

Association for Institutional Research

The AIR *Professional File* is intended as a presentation of papers which synthesize and interpret issues, operations, and research of interest in the field of institutional research. Authors are responsible for material presented. The AIR *Professional File* is published by the Association for Institutional Research.

EDITOR:

Dr. Gerald W. McLaughlin

Associate Vice President for Enrollment Management and Marketing
DePaul University
1 East Jackson, Suite 1501
Chicago, IL 60604-2216
Phone: 312-362-8403
Fax: 312-362-5918
gmclaugh@depaul.edu

MANAGING EDITOR:

Dr. Randy L. Swing

Executive Director
Association for Institutional Research
1435 E. Piedmont Drive
Suite 211
Tallahassee, FL 32308
Phone: 850-385-4155
Fax: 850-385-5180
air@airweb.org

AIR PROFESSIONAL FILE EDITORIAL BOARD

Dr. Trudy H. Bers

Senior Director of Research, Curriculum and Planning Oakton Community College Des Plaines, IL

Dr. Stephen L. Chambers

Director of Institutional Research and Assessment Coconino Community College Flagstaff, AZ

Dr. Anne Marie Delaney

Director of Institutional Research Babson College Babson Park, MA

Mr. Jacob P. Gross

Associate Director for Research Indiana University/Project on Academic Success 1900 E 10th Ste 630 Bloomington, IN

Dr. Ronald L. Huesman Jr.

Assistant Director, Office of Institutional Research University of Minnesota Minneapolis, MN

Dr. David Jamieson-Drake

Director of Institutional Research Duke University Durham, NC

Dr. Julie P. Noble,

Principal Research Associate ACT, Inc. Iowa City, Iowa

Dr. Gita W. Pitter

Associate VP, Institutional Effectiveness Florida A&M University Tallahassee, FL 32307

Dr. James T. Posey

Director of Institutional Research & Planning University of Washington Tacoma, WA 98402

Dr. Harlan M. Schweer

Director, Office of Institutional Research College of DuPage Glen Ellyn, IL

Dr. Jeffrey A. Seybert

Director of Institutional Research Johnson County Community College Overland Park, KS

Dr. Bruce Szelest

Associate Director of Institutional Research SUNY-Albany Albany, NY

Mr. Daniel Jones-White

Analyst University of Minnesota Minneapolis, MN

Authors interested in having their manuscripts considered for the *Professional File* are encouraged to send four copies of each manuscript to the editor, Dr. Gerald McLaughlin. Manuscripts are accepted any time of the year as long as they are not under consideration at another journal or similar publication. The suggested maximum length of a manuscript is 5,000 words (approximately 20 double-spaced pages), including tables, charts and references. Please follow the style guidelines of the *Publications Manual of the American Psychological Association, 6th Edition*.