

Working Paper Series: CHEWP. 1.2009



Center for Higher Education

Ohio University

<http://www.coe.ohiou.edu/centers-partnerships/centers/center-higher-ed.htm>

The purpose of this Working Paper Series is to contribute to the body of research on higher education, and enhance dialogue among educators, policy makers, practitioners, and the public. The Working Paper Series includes papers, original research studies, reflective essays, and major reports generated by Center-related research projects. Any opinions, findings, and conclusions or recommendations expressed in these works are those of the author(s) and do not necessarily reflect the views of the Center for Higher Education, its research staff, or other affiliated researchers. Questions regarding the content of individual contributions and Center research reports should be directed to the author(s).

**INSTITUTIONAL RESEARCH IN SUPPORT OF STUDENT AND
INSTITUTIONAL SUCCESS***

August 2009

A. Michael Williford

Associate Provost for Institutional Research and Assessment
Ohio University

“Not everything that counts can be counted, and not everything that can be counted counts.”

--A. Einstein

ABSTRACT

This paper explores the role of institutional researchers in support of student and institutional success. Specifically, Williford addresses the question of whether institutional researchers should advocate for student success. Prior literature in the field of institutional research is largely silent on the subject of advocacy. With the help of several case studies undertaken by the Office of Institutional Research at Ohio University, Williford argues that institutional researchers should be practically-oriented action researchers, active participants in helping their colleges and universities achieve their goals and objectives. Furthermore, as educators, institutional researchers need to be advocates for institutional and student success. They often participate in student assessment, in which the overall goal is improving teaching, learning, and student services.

* The author is grateful for support from the Ohio University Center for Higher Education.

Should institutional researchers advocate for student success? Among the principles of institutional research (IR) as a profession are fairness, honesty, and impartiality. So, should institutional researchers be advocates for any particular standpoint? The primary function of the Office of Institutional Research at Ohio University is to “Ensure that the university community is well-informed with reliable information so that it may carry out its mission effectively and efficiently,” which means that its work is dedicated to help achieve the University’s mission.

Ohio University's mission is the following: "Ohio University holds as its central purpose the intellectual and personal development of its students. . ." Indeed, "the success of an institution and the success of its students are inseparable" (Levitz, Noel, & Richter, 1999, p. 31). Institutional researchers and higher education institutions function most effectively when IR staff serve as advocates for student and institutional success.

Many faculty and staff think of institutional researchers as people who analyze data, write technical reports, and report data to external agencies. While most institutional researchers do these things, they are the least of what we do. At the 48th Annual Forum of the Association for Institutional Research in May 2008, the Association's new executive director, Randy Swing, implored the audience of over 1,700 institutional researchers to think of themselves as educators. Our role as educators, whether at small colleges or research universities, is to help students succeed. "The goal of any [student success] research . . . is to gain as much information as possible and use the information in a way that makes the greatest difference in improving student success rates" (Roth, 2008, p. 76).

Action Research

Institutional research is different from academic research on higher education to advance knowledge. Saupe (1981) described institutional research as "applied research." Applied research is used for planning activities, policy making, and decision making by a college or university. Institutional research is the kind of information gathering and reporting that fuels "data-driven" or "data-informed" decisions. However, institutional research is less effective for capricious "wouldn't it be interesting if . . ." inquiries. In order for applied research to be effective, it must go beyond self-serving inquiry designed to advance individuals' curiosity or department leaders' desire to advance their program's agenda.

Saupe (1981) describes the unique role of the institutional researcher:

. . .the person responsible for institutional research may be called upon to provide advice on planning, policy, and other issues facing the college or university . . . When the director of institutional research participates in planning, policy formulation, and decision-making deliberations at the state in which considerations other than those raised by the research are brought to bear, it is important to recognize that the participation is based upon the director's status as an expert on the institution and higher education rather than the role of researcher (pp. 7-8).

Institutional researchers practice a kind of "action research." Action research is an approach to social and behavioral research, introduced by psychologist Kurt Lewin in the 1940's, in which the purpose and objectives of inquiry are practical, rather than theoretical or academic. The purpose of action research is to bring about social or organizational change (Hansen & Borden, 2006; Hansen, Borden, & Howard, 2003). Institutional research is conducted in an academic setting and needs to be credible to an academic audience. However, institutional researchers operate under budgeting and planning time lines and administrative deadlines. They do not work in isolation but often consult and partner with other units on campus. The forms of academic research are present in institutional research, but the objective is to inform decision making

rather than to advance knowledge. In order for institutional research to be relevant to decision makers, it needs to balance being grounded in current theory with being relevant and timely in the current institutional setting. Academic inquiry may have a passive or indirect effect on decision making, but institutional research often is conducted because a decision-maker has made a direct request for data or information. In a student success advocacy role, an institutional researcher may take this a step further and conduct a study or analysis that s/he thinks the administration should have. Action research combined with student success advocacy means that institutional researchers are more involved in designing analyses, making recommendations for program improvements, carrying them out, and being (at least somewhat) accountable for the effects.

Institutional research is an emerging field. With regard to student success research, neither Saupe's (1981) *The Functions of Institutional Research* nor the 1992 edition of *The Primer for Institutional Research* (Whiteley, Porter, & Fenske, 1992) specifically address whether or not institutional researchers should take a student success advocacy role or even do student success research. They do address enrollment management to support planning and budgeting functions. The 2003 edition of *The Primer for Institutional Research* (Knight, 2003), includes more content on enrollment management and introduces the topic of student assessment in addition to more traditional IR functions (e.g., faculty activity reporting, faculty salary studies, and database management). It was silent on the subject of advocacy. In a 2008 edition of *New Directions for Higher Education* that profiled the functions of institutional research, Delaney (2008) summarized many institutional research studies that addressed student success and concluded that a proactive role is needed in order for institutional research to be effective in influencing policy.

Traditionally, institutional researchers have played a researcher-consultant role in conducting student satisfaction research (e.g., Sanders & Chan, 1996; Delaney, 2005). This includes designing important and innovative studies which give relevant and timely information to decision makers. Sanders and Chan (1996) discussed using student satisfaction surveys to track trends, link satisfaction data to existing data sources, collaborate with users to yield more focused interpretations of research results, segment information to particular users, and communicate unit-specific findings to particular units. These roles are necessary but not sufficient for helping the institution and its students become more successful.

Through "action" studies of student and institutional commitment, and identifying patterns of attrition behavior, institutional researchers can help groups of struggling students by making known statistics on their academic circumstances and progress (Hansen & Borden, 2006; Hansen, Borden, & Howard, 2003). Assuming that the campus community is receptive, then programs and practices can change so that future students' needs can be better met. The institutional research office can be a change agent to an institution (McLaughlin, Brozovsky, & McLaughlin, 1998). By identifying groups of students who are in academic difficulty and by partnering with units committed to helping students succeed, IR offices can help bring about positive changes in student success rates.

Action research provides a framework for institutional researchers to become involved with projects and programs that are important to the institution. IR offices provide information and

guidance to help their institutions manage themselves effectively and efficiently. Institutional researchers can help members of the college/university community understand research problems. Being present at the source of institutional data, they can call attention to real or potential problems. They can influence institutional policies and practices. They can become involved with decision makers as needs for information are developing, and they can help implement recommendations to help solve institutional problems. One way to do this is to study and encourage first-year student engagement and involvement. The experiences during the first (freshman) year affect students' development and performance throughout college. Indeed, attrition occurs most frequently during the first year, and retention programs most often are directed toward freshmen. Student involvement and engagement studies provide information that is important to student retention and student development (Kuh, Shuh, Whit, & Associates, 1991). For example, in the 1980's, Ohio University desired to increase its freshman retention rate in order to increase enrollment to re-build to pre-1970's levels and to provide additional tuition and subsidy revenue. The Office of Institutional Research (OIR) became involved in an inter-institutional effort to attempt to identify potential leavers before they left the University. Coordinated by OIR, the Involvement Intervention project was developed, working with the offices of Residence Life and the Dean of Students, to predict and identify individual student leavers (Office of Institutional Research, 2006; Williford, 1997; Williford & Moden, 1995). In addition, OIR developed a model of student and institutional commitment using National Survey of Student Engagement and Student Involvement Study results (Williford & Schaller, 2005; 2008).

Profiling Student Success

Institutional researchers can help their colleges/universities identify students' needs. This may occur in the form of formal needs analysis studies, or in more informal ways, by interacting with academic leaders, faculty, student affairs staff, student success center staff, etc. As advocates for student success, institutional researchers can help the university community understand students' characteristics and needs. Enrollment statistics and profiles that describe the student body statistically can help the university community better understand who their students are. Such data can factually confirm characteristics of the student body, such as the percentage of in-state students or students from different race/ethnicity backgrounds. Such data can help dispel myths that may exist about the student body, such as faculty's perception about the decreasing academic quality of recent freshman classes or the percentage of students on academic probation.

In creating these profiles, institutional researchers can help define student success. Because institutional research offices have access to institutional data presented to and used by external audiences as well as unit-record student data used for internal purposes, different perspectives of success are apparent. From the institution's perspective student success may be operationalized in terms of first-year retention rates, the percentage of students being denied admission, and average ACT scores. From the students' perspective, however, success may be defined differently. As millennial students become more mobile, transferring to and from different colleges and universities, pursuing distance learning, and simultaneously enrolling at more than one campus or even institution, "being retained" may not be very important to them. Student success measures that might be important to both students and institutions would be degree completions, student GPA, and academic probation rates.

Helping the institution understand students' needs is an important part of advocating for student success. We as educators place high value on institutional priorities such as retention and graduation rates, diversity, and admissions selectivity. Students' perspectives are more difficult to capture. Students are increasingly reluctant to respond to large-scale surveys from the administration, and their needs are diverse and ever-changing. While it is tempting to measure student success by commonly-accepted metrics (e.g., retention rates), many of these metrics are used because the data are readily available and are required reporting to IPEDS, *US News*, etc.

It is important to the institution for the institutional research office to challenge common conceptions of operational definitions. For example, one theoretical approach to studying student retention draws a parallel with Durkheim's suicide theory (Tinto, 1993). Just as a community's suicide rate is not merely a measure of its condition, first-year retention is not merely a measure of institutional success in educating students. Individuals make decisions to leave a community (one way or another) that may not have anything to do with the community experience. Studies of student background and reasons for attending or leaving a particular college or university, transfer-in and transfer-out rates, attrition studies, etc. can help inform decision makers about the appropriate context in which to think about measures such as retention. As educators, we ought to consider retention to be our minimal expectation for student success, that they simply return to our campuses after their first year (T. Kahrig, personal communication, January 14, 2005).

To provide a new perspective on attrition from data on students who are still enrolled at Ohio University, students' responses to the first-year Student Involvement Questionnaire (SIQ) and the National Survey of Student Engagement (NSSE) were analyzed by the Office of Institutional Research. Comparisons in student involvement and engagement between stayers and leavers were made to help better understand retention and attrition (Office of Institutional Research, 2005; Williford & Schaller, 2005; 2008; Williford, Schaller, & Descutner, 2006). This type of study by an office of institutional research was highlighted by Gardner, Barefoot and Swing (2001) as a way to identify programs that contribute to institutional success. The research questions for these assessments are the following: Are there retention differences between students participating in these programs and students not participating in these programs?" Comparing groups of participants, are there differences? What "best practices" can be identified and supported? The basic design of this research is to compare groups of students—between participants and non-participants. Where possible, exploratory analyses among participant groups were done. Basic comparisons among sections, dates, courses, etc. were made to identify examples of best practices. This approach is appropriate for and accessible to a broad-based internal audience of faculty and staff (Bauer, 2004; Dooris & Nugent, 2001). Indeed, "offices of institutional research can carry out analyses to help guide enrollment management strategies as well as conduct assessment and evaluation studies of the effectiveness of various strategies" (Hossler & Anderson, 2005, p. 69).

Institutional researchers can influence enrollment management practices (Braxton, Vesper, & Hossler, 1995) and ultimately student retention by applying advanced statistical tools such as logistic regression (Adelman, 1999), survival analysis (Murtaugh, Burns, & Schuster, 1999), and data mining (Luan & Zhao, 2006). Basic descriptive statistics can be just as effective in action research settings because they are easily understood by diverse audiences. For example, over the years the Ohio University Office of Institutional Research's annual retention report includes

detailed retention statistics broken down by: year, race/ethnicity, gender, high school percentile rank, ACT scores, admissions status, state residency, living arrangement, academic college, academic major, scholarship status, expected family contribution, academic performance, course enrollment, and type of instructor, individually and in combination (Office of Institutional Research, 2007). These breakdowns respond to the most frequently-asked questions about retention rates for different groups of students.

Institutional Research Functions in Promoting Student Success

Institutional research has traditional functions of analyzing student data, and writing and disseminating findings. Such dissemination can be done through distributing reports, making them available on the Web, attending meetings, calling and conducting meetings, and offering to work with stakeholders to answer continuing questions and do additional follow up or ad hoc analyses. IR should identify current uses of available and existing data and always seek new ways to analyze existing data to discover new findings. IR should also seek new data sources and not rely on existing obvious sources.

Institutional researchers can help their campus communities use and interpret data on students. Whether answering a simple ad hoc question or developing an extensive research project, it is always useful to attempt to identify the research question. The research question helps focus the inquiry and can help distinguish between what one wants to know from what is known already. The research question helps the researcher determine what data may already be available, what data to look for, what data are most appropriate, whether the source should be primary or secondary, whether the method should be more deductive or inductive, which population to choose, and which method(s) to employ.

The institutional research office at Ohio University has been an active participant in bringing action research questions and problems to light. It has helped to offer suggestions for solving the attrition problem in several ways. First, through its regular and ad hoc retention studies, it helps the university community understand who is leaving and why students leave. Some students do not return for reasons that only they can understand or control. Other students leave because their needs (personally and institutionally) are not being met. Second, IR helps the university community understand that attrition represents a failure to meet students' needs by not helping them succeed. If retention is seen merely as a means by which to stabilize enrollment and the institutional budget only, students are being taken for granted and are not seen as the primary object of attention. Through studies of student and institutional commitment, and by identifying patterns of attrition behavior, IR can help identify groups of students who are struggling academically and socially. For example, courses that were linked to lower than average retention rates were identified. Some of these courses were appropriate for providing supplemental instruction. The supplemental instruction coordinator adjusted the list of available courses so that supplemental instruction was offered for courses that were linked to higher attrition. Third, IR distributed reports, disseminated findings, attended and led meetings, and offered to do extra analyses, all to increase the visibility of attrition/retention issues on campus. Fourth, IR helped the campus community identify a common, model experience for first-year students. Finally, IR identified student success programs that displayed best practices in what works already, such as learning communities and/or supplemental instruction, and reinforcing those practices by working with those them to develop student success statistics and studies.

Institutional research can identify and reinforce best practices by serving as methodological consultants. IR staff can help perform methodological functions including identifying student populations, identifying student characteristics, helping student affairs and academic affairs better understand their students; and merge multiple sources of data to synthesize new practical findings. Types of analyses might include identifying aggregate numbers of students served, identifying sub-populations or groups served or in need of service; assessing outcomes, identifying value-addedness, or the net effect or impact of programs and practices, student satisfaction studies, studies of academic performance, and studies of persistence (retention and graduation).

In a research university, students' interests can get lost in the large number of priorities that compete for attention. Partnerships between IR and others, such as student affairs staff, student success center staffs, and higher education center faculty and staff in academic affairs can help research universities focus institutional attention on students' needs. For example, in recent years, Ohio University's institutional research office was directly involved in efforts to create a high quality, common first year experience. Data on first year students (http://www.ohiou.edu/institres/student/fresh_exp.html) helped inform and support this effort. Enrollment management reports and statistics help inform about incoming students' background and characteristics. First-year profiles, one generated locally and one adapted from data provide by ACT, describe incoming students' interests, aptitudes, and aspirations. First-year marketing studies provide information about the reasons students apply to and enroll at Ohio University. Extensive first-year retention studies describe characteristics of students who return and who leave, including reasons why they leave. Participation in the Cooperative Institutional Research Program (CIRP), National Survey of Student Engagement (NSSE), and the locally-developed Student Involvement Study informed committee members about students' interests, attitudes, and patterns of behavior.

College and university units that also advocate for student success can work with institutional researchers as action research partners. Reasons for units to seek institutional research support include the following:

- self studies;
- program evaluation (formative and summative);
- identify program successes and best practices;
- assessment for improving teaching, learning, and student services
- helping individual or groups of individual students achieve their goals;
- ad hoc studies to support program inquiry;
- demonstrating accountability to external entities;
- support political initiatives (e.g., state-wide graduation for economic development);
- improving institutional efficiency and effectiveness (continuous quality improvement).

Partnerships

In choosing partnerships between institutional research and other units, IR may have an institution-wide mission, but it still must consider institutional mission, institutional planning priorities, political realities, and the constraints of too little time and money. Is the proposed project essential to the functioning of the unit(s) involved? Is the project necessary to program

continuation? Is it essential to the functioning of the institution? Is it consistent with the institutional mission? Is it important to student functioning and success? Finding willing partners, such as the division of Student Affairs, University College, and the Center for Higher Education are necessary to institutional research advocating for attention to student success.

Certain practical issues need to be considered in any partnership. When an institutional research office partners with another unit, it is often advisable to work out practical issues such as financial resources (who pays for what), prioritization within busy schedules, coordination with other IR activities, coordinating the institutional message, having a consistent message with other data sources, data ownership issues, and how to best disseminate findings with the rest of the campus (if appropriate).

Institutional research offices can work with student success centers or functions and can benefit those functions by bringing in “outside” expertise. Many institutional researchers are not only “number crunchers,” statisticians, or computer programmers, but they come from a variety of backgrounds in the social and behavioral sciences and may even have student services backgrounds. With such backgrounds, institutional researchers can advocate for student success by not simply reacting to and answering questions posed to them but can actually help guide campus thinking. In addition, they can partner with student success units to mutually help interpret data. Institutional researchers may be in the best position to provide statistical interpretation, and student success center staff may be in the best position to provide practical interpretation.

Other benefits of partnering with institutional research staff may result. Often, institutional researchers are viewed as “honest brokers,” committed to honestly, fairly, and completely reporting institutional data and phenomena (Association for Institutional Research, 2001). Institutional research staff typically have expertise in educational research design and statistical analysis. They have direct access to student data. Often they have access to trend data and can provide a historical perspective on student success. They have access to external data for comparative or benchmarking purposes, such as the Integrated Postsecondary Educational Data System (IPEDS), state higher education executive offices (SHEEO), and comparative studies such as CIRP and NSSE. Finally, institutional research offices that are truly institution-wide in their scope of operations can provide a “big picture” perspective and can bring alignment to different or divergent units.

Institutional research can help convince faculty and staff to invest time, energy, and resources to facilitate student success. Assessing student success and profiling best practices in student success are needed in order to make the best possible case to invest such resources (Kuh, 2007). This evidence can be used by campus leaders to support student success efforts to help the institution achieve its mission.

Challenges

Hansen and Borden (2006) described possible problems for the institutional researcher in an action research setting. Greater involvement between those on the research side and those on the implementation side can yield greater understanding of research findings on both sides. However, there exists the potential for increased problems, such as more time commitment

needed, individuals working in new and unfamiliar work roles, and data ownership issues. In addition, in action research roles, institutional researchers risk losing some of their autonomy and objectivity as they plan more of an advocacy role. Saupe (1981) warned that the research and the decision making, though related, should be kept separate. Decisions are not based solely on research findings, but desired decisions should not bias or influence the research.

Institutional researchers face competing demands that may detract from their action research on student success. Most institutional research offices are responsible for compulsory data reporting to the federal government (IPEDS), to their state coordinating or controlling board, and to a variety of private agencies (e.g., US News college rankings survey). Even efforts that claim to support student success may take away from local attention. National efforts to assess students (Commission on the Future of Higher Education, 2006) would require institutional researchers and others to devote time, energy, and financial resources to administering general education standardized tests and interpreting results. Regional accreditors are demanding more data, due in part to pressure from the U.S. Department of Education. State higher education boards increasingly are turning to building comprehensive “data and accountability” systems (L’Orange, 2007), such as the Higher Education Information (HEI) system that already exists in Ohio, designed to provide data for the annual Performance Report. These external efforts require time, energy, and financial resources from institutional research offices that could be better put to good use internally for action research projects on student success.

Kuh (2007) said that despite knowing many of the factors that foster and hinder student success, many limitations face colleges and universities in what they can do to improve student success. Although most colleges and universities want to admit better students than the ones they have, it is difficult to “change the lineage” (p. 105). Institutional cultures, even well-meaning toward student success, are difficult to change to make seemingly obvious improvements.

Case Study—The First Year Experience

Following is a brief case study on how the Office of Institutional Research at Ohio University practiced action research by partnering with several units to increase institutional and student success particularly in the first year experience. Beginning in 2003-04, Ohio University began a number of programs designed to increase first-year student involvement and engagement. These included learning initiatives, learning communities, student engagement committees prompted by the University’s use of NSSE, supplemental instruction, and academic probation intervention. The primary goal of these programs was to foster first-year student success. The Office of Institutional Research was asked to perform analyses, studies, assessments, and evaluations of many of these programs, such as for the University Experience course, study skills courses, learning communities and residential learning communities, and supplemental instruction. Conversations about these programs presented opportunities to engage in action research, with institutional research staff discussing at length with faculty and staff about causes and correlates of retention/attrition. Even though retention was not initially a stated objective of these programs, retention rates presented a readily available dependent variable that aligned with the University’s goal to increase retention. As the programs evolved over the next few years, retention became an important objective. Using existing data, IR staff created a correlational design template to help answer a simple set of research questions. Are there retention and GPA differences between participants and non-participants? Are there differences among groups of

participants that could help identify best practices? What best practices can be communicated widely among program faculty and staff? The research design was simply to compare groups of students, participants and non-participants, within groups of participants practicing different approaches, controlling for level of academic ability or aptitude through statistical techniques such as blocking and analysis of covariance (e.g., Williford, Chapman, & Kahrig, 2001).

The action research program extended into the next two academic years. Different outside agencies participated in helping Ohio University study its first year experience. The American Association for Higher Education provided an opportunity to sponsor a study group, which worked with Institutional Research staff to design focus group interviews of faculty and staff on the first year experience. IR staff worked with NSSE staff and Ohio University faculty to develop a faculty engagement instrument to complement the student instrument. The results of two years of student and faculty NSSE surveys resulted in a team of IR staff, faculty, and faculty development staff visiting academic deans and academic departments about how their students and faculty regarded the first year experience (Curtright, Williford, Schaller, & Kovalchick, 2004). The result of these conversations was to characterize a “freshman homelessness” problem in some of the academic units. Students were admitted into programs as majors but might not be allowed to take any of their courses for up to one year. As a result, the University’s academic leadership and strategic planning committees made appropriate changes, such as funding a student help center and changing academic policies.

Ohio University’s participation in AQIP (The North Central Association for Colleges and Schools Higher Learning Commission’s alternative regional accreditation program Academic Quality Improvement Program) enabled it to select action projects in focused year-long studies. Three of the four initial action projects had to do with the first year experience and student engagement. IR staff worked with committee members in each team to make sure they knew what relevant studies were available from previous partnerships with other units, and they consulted in an action research setting to help meet information needs as they arose. Assessment of the effectiveness of each action item and making recommendations from those assessments were action items that grew out of the action research framework. IR worked with student affairs and academic affairs units to assess and evaluate different first year experience programs. Ohio University’s AQIP action item on general education enabled it to begin to develop learning objectives for general education curricular components, with methods recommended by IR staff. More information is available on the Ohio University AQIP Web site, <http://www.ohio.edu/apaa/AQIP.cfm>.

The first-year experience action research culminated in 2006-07, when Ohio University agreed to participate in the Policy Center on the First Year of College’s “Foundations of Excellence in the First College Year” program. The program is a guided self-study, guided and informed by data, designed to help colleges and universities set goals for first year students and operationalize policies and practices. Assessing the first year experience was key to this endeavor. IR studies and projects to support the first year experience were the following:

- NSSE survey
- Student Involvement Study
- CIRP
- Educational Benchmarking, Inc. surveys of faculty and students

- Admissions statistics
- ACT Class Profile
- Locally-developed first-year profiles
- First-Year Marketing Study (locally-developed and ASQ Plus)
- Survey of Student Leavers
- Factors Associated with First Year Student Attrition and Retention
- Comprehensive retention study
- Numbers of students served in colleges, majors, programs
- Comparative analyses of University Experience, Study Skills, and Reading Skills courses
- Comparative analyses of College Adjustment Program, Supplemental Instruction
- Analyses of patterns of student success—GPA, probation tracking
- ACT Advising Survey
- Comparative analyses of learning communities

The first year assessment plan is still in effect and is evolving to meet the institution's (and students') needs. These IR projects continue to provide ongoing data about the University's progress with its first-year student success programs.

Conclusion

Institutional researchers should be practically-oriented action researchers, active participants in helping their colleges and universities achieve their goals and objectives. As educators, institutional researchers need to be advocates for institutional and student success. They often participate in student assessment, in which the overall goal is improving teaching, learning, and student services. "Continuous improvement" is also an advocacy activity for institutional research, to help units on their campuses improve their services.

Institutional researchers often are viewed as methodological consultants. They have direct access to student data, and they can locate additional data sources that may not be readily available. They advise faculty and staff on the most appropriate methods in their roles as action researchers. They help interpret data and results. As action researchers, they truly become partners with other units on their campuses, being involved in all stages of research planning, collection, and implementing recommendations from research findings.

As educators, institutional researchers advocate for student success by helping inform faculty, staff, stakeholders, and decision makers. Often being closest to student data, they are in a key position see patterns of data and to interpret data in ways that others may not see and make recommendations accordingly. As educators, they find ways to involve and engage students, directly through getting students to participate in surveys, and indirectly by informing faculty and staff who deal more directly with students in the classroom and in campus activities. As educators, they see a wide range of student problems through data and work to help their campuses resolve those problems.

In their action research role, institutional researchers are participants/observers. Partnering with other units, they study student development and success. They see patterns in student data that may identify groups of students who need additional attention, and they can identify best practices through data on successful students. Such a role can help their institutions manage their

enrollments which leads to fiscal stability, better planning, and mission fulfillment. Finally, through their traditional role of reporting institutional data to outside agencies, institutional researchers seek ways to communicate their knowledge about student and institutional success to demonstrate accountability through appropriate reporting mechanisms and metrics. Evidence from institutional research may be a useful tool to help inform small groups of faculty and staff who are willing to make improvements. Institutional research can help provide information about admissions practices and educational practices that will help students, in Kuh's (2007, p. 105) words, "to increase the odds that more students will get ready, get in, and get through [college]." Institutional researchers are educators who have a unique vantage point in their access to and use of student success data. Combining principles from enrollment management, action research, and student success advocacy, institutional researchers can aid their institutions and their students in becoming more successful in achieving their goals.

REFERENCES

- Adelman, C. (1999). *Answers in the (tool) box: Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, DC: U.S. Department of Education.
- Association for Institutional Research (2001). *Code of ethics for institutional research*. Retrieved June 3, 2008, from <http://airweb.org/images/2002codeofethics.pdf>.
- Bauer, K.W. (2004). Your first stop for information: The office of institutional research. In R.L. Swing (Ed.) *Proving and improving, volume II: Tools and techniques for assessing the first college year* (Monograph No. 37). Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition.
- Braxton, J.M., Vesper, N., & Hossler, D. (1995). Expectations for college and student persistence. *Research in Higher Education*, 36(5), 595-612.
- Commission on the Future of Higher Education. (2006). A test of leadership: Charting the future of U.S. higher education. Washington, D.C.:U.S. Department of Education. Retrieved June 7, 2008 from <http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf>.
- Cutright, M., Williford, A.M., Schaller, J.Y., & Kovalchick, A.E. (2004). Who owns the first year of college? Faculty issues in the promotion of engaged pedagogies at a research university. Paper presented at the MWERA Annual Conference, Columbus, Ohio.
- Delaney, A.M. (2005). Expanding students' voice in assessment through senior survey research. *AIR Professional File*, 96(Summer).
- Delaney, A.M. (2008). Typical institutional research studies on students: Perspectives and examples. In Terkla, D.W. (Ed.) *Institutional research: More than just data, New directions for higher education No. 141*. Wilmington, DE: Wiley Periodicals, Inc.
- Dooris, M.J. & Nugent, D.P. (2001). *The role of institutional research in implementing first-year seminars*. Paper presented at the Northeast Association for Institutional Research 28th Annual Conference, Cambridge, MA.
- Gardner, J.N., Barefoot, B.O., & Swing, R.L. (2001). *Guidelines for evaluating the first-year experience at four-year colleges* (2nd ed). Columbia, SC: University of South Carolina.

- Hansen, M.J., Borden, V.M.H., & Howard, R.D. (2003). *An action research paradigm for institutional research*. Paper presented at the 43rd Annual Forum of The Association for Institutional Research, Tampa.
- Hansen, M.J. & Borden, V.M.H. (2006). Using action research to support academic program improvement. In St. John, E.P. & Wilkerson, M. (Eds.), *Reframing persistence research to improve academic success, New directions for institutional research No. 130*. San Francisco: Jossey-Bass.
- Hossler, D. & Anderson, D.K. (2005). The enrollment management process. In Upcraft, M.L., Gardner, J.N. Barefoot, B.O., & Associates (Eds), *Challenging and supporting the first-year student: A handbook for improving the first year of college*. San Francisco: Jossey-Bass.
- Knight, W.E, (Ed.) (2003). *The primer for institutional research*. Tallahassee: The Association for Institutional Research.
- Kuh, G.D., Shuh, J.H., Whitt, E.J. & Associates. (1991). *Involving colleges: Successful approaches to fostering student learning and development outside the classroom*. San Francisco: Jossey-Bass.
- Kuh, G.D. (2007). Success in college. In *More student success: A systematic solution*. Boulder, CO: State Higher Education Executive Officers. Retrieved February 11, 2008 from <http://www.sheeo.org/k16/studsucc2.pdf>.
- L'Orange, H.P. (2007). Data and accountability systems. In *More student success: A systematic solution*. Boulder, CO: State Higher Education Executive Officers. Retrieved February 11, 2008 from <http://www.sheeo.org/k16/studsucc2.pdf>.
- Levitz, R.S., Noel, L., & Richter, B.J. (1999). *Strategic moves for retention success*. In Gaither, G.H. (Ed.), *New directions for higher education, no. 108: Promising practices in recruitment, remediation, and retention*. San Francisco: Jossey-Bass.
- Luan, J. & Zhao, C.M. (Eds.), (2006). *Data mining in action: case studies of enrollment management, New directions for institutional research No. 131*. San Francisco: Jossey-Bass.
- McLaughlin, G.W., Brozovsky, P.V., & McLaughlin, J.S. (1998). Changing perspectives on student retention: A role for institutional research. *Research in Higher Education*, 39(1), 1-17.
- Murtaugh, P.A., Burns, L.D. & Schuster J. (1999), Predicting the retention of university students, *Research in Higher Education*, 40(3), 355-371.

- Office of Institutional Research. (2006). *A follow-up study of involvement intervention efforts at Ohio University*. (2006-SI-17). Ohio University, Athens, OH. Retrieved April 9, 2007, from <http://www.ohiou.edu/instres/involve/followup.pdf>
- Office of Institutional Research. (2007). *Factors associated with first-year attrition and retention at the university Athens Campus*. (2007-SI-86). Ohio University, Athens, OH. Retrieved June 7, 2008, from <http://www.ohiou.edu/instres/retention/RetenAthens.pdf>
- Office of Institutional Research (2005). *First-year student attrition at the university 2003-04 to 2004-05: A comprehensive analysis of reasons for first-year (freshman) student withdrawal at the university*. (2005-SI-16). Ohio University, Athens, OH. Retrieved May 7, 2005, from <http://www.ohiou.edu/instres/involve/1stYearAttritionReport.pdf>
- Roth, S.E. (2008) A model to predict Ohio University student attrition from admissions and involvement data. Unpublished master's thesis, Ohio University.
- Sanders, L. & Chan, S. (1996). Student satisfaction surveys: Measurement and utilization issues. *AIR Professional File*, 5 (Spring).
- Saupe, J.L. (1981). *The functions of institutional research*. Tallahassee: The Association for Institutional Research.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: The University of Chicago Press.
- Whiteley, M.A., Porter, J.D., & Fenske, R.H. (Eds.), (1992). *The primer for institutional research*. Tallahassee: The Association for Institutional Research.
- Williford, A.M. (1997). Freshman Involvement and Retention at Ohio University: Intervention with Individual Potential Leavers. Paper presented at the Annual Forum of the Association for Institutional Research, Lake Buena Vista, FL. Retrieved April 9, 2007, from <http://www.ohiou.edu/instres/involve/interv.html>
- Williford, A.M., Chapman, L.C., & Kahrig, T. (2001). The University Experience course: A longitudinal study of student performance, retention, and graduation. *Journal of College Student Retention*, 2(4), 327-340.
- Williford, A.M. & Moden, G.O. (1995). Assessing student involvement. In Banta, T.W., Lund, J.P., Black, K.E., & Oblander, F.W. (Eds.), Assessment in practice: Putting principles to work on college campuses. San Francisco: Jossey-Bass Inc., Publishers.
- Williford, A.M. & Schaller, J.Y. (2005). *All retention all the time: How institutional research can synthesize information and influence retention practices*. Paper presented at the 45th Annual Forum of the Association for Institutional Research, San Diego, CA.

Williford, A.M., Schaller, J.Y., & Descutner, D.N. (2006). Assessing first-year success using existing institutional data. Paper presented at the 2006 Assessment Institute in Indianapolis, IN.

Williford, A.M. & Schaller, J.Y. (2008, in press). How Institutional research can create and synthesize retention and attrition information. AIR Professional File.