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THE STATUS OF INSTITUTIONAL RESEARCH: For Women But Not For-Profits?

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ABSTRACT

College and university administrators have been under increased pressured to explain how campus operations support student enrollment and the cost of higher education. Administrators have consequently been moving toward a data-informed decision process and have begun working in partnership with institutional research for decision support.

The purpose of this paper was to examine the literature to determine the status of IR in higher education. This examination is important to higher education for meeting the increased pressure and demands for accountability from those it serves. The escalating amount of data and the capability for comparing data is unparalleled.

Consequently the role of institutional research has been evolving since its inception as a distinct function in higher education for over 50 years and varies from institution to institution globally. However, the fundamental role of gathering, examining, and distributing data for planning, policy formulation, and decision support has remained consistent. Research has revealed two district findings about the evolution of IR professionals in the United States. First, women professionals in IR have grown from 25% to 62% (a 148% growth) in 30 years and second, only two percent of the IR professionals are from for-profit institutions.

Keywords: Institutional research, characteristics of institutional research, history of institutional research, the role of institutional research.

INTRODUCTION

The academy has come under increased accountability. Colleges and universities have been pressured to explain how campus operations support student enrollment and the cost of higher education.
Institutional research (IR) is answering these requests by presenting data supporting strategic decisions enabling administrators to assess the benefits of cost on classroom and non-classroom activities (Knight & Leimer, 2010; McLaughlin, McLaughlin, & Kennedy-Phillips, 2005; Middaugh, Kelly, & Walters, 2008; Trainer, 2008; Voorhees, 2008; Webber, 2012). The burgeoning amount of data and the capacity for comparative data available to IR and administrators is unparalleled. Undeniably, in this age of information and the Internet the academy is saturated with data, some helpful and some not so helpful (Trainer, 2008).

The typical key performance indicators that have been useful in the past have also been inflexible for narrating the complete story and generating all the data necessitated by the multifaceted non-classroom activities of flourishing colleges and universities. Furthermore, the data needed to support strategic decisions may not be located in all institutional databases. Administrators are expected to demonstrate, for example, how expenses for non-classroom, non-athletic student activities contribute to successful

learning processes or how they contribute to the overall success of academic programs (McLaughlin et al., 2005).

As a result, college and university administrators that have been pressured to explain how campus operations support student enrollment and the cost of higher education have been moving toward a data-informed decision process. Administrators have begun working in partnership with IR for decision support. According to McLaughlin and Kennedy-Phillips (2005), college and university administrators who work in partnership with IR will be able to "sustain" (p. 3) the future of the academy.

Moreover, colleges and universities that have organized and centralized their institutional data experience a benefit in strategic planning and decision making. At the core of support for decision making, accountability, planning, and demonstrating effectiveness to all internal and external stakeholders is the growing prominence and value of IR (Voorhees, 2008). Consequently, experts in the field of IR experience the value of the role in collecting, examining, and distributing data and converting data into necessary information for planning and decision making purposes (Voorhees).

IR exists on a number of college and university campuses to create standard reports required by state, federal, and accreditation agencies. While this is an important role, the institution fails to take advantage of opportunities if generating reports continues to be the only role performed by the office of IR. According to Voorhees (2008), IR offices that consume the greater part of their time engaged in reporting generally experience minimal enthusiasm in attempts to discover new opportunities where their distinct expertise can be of benefit to their institutions.

The purpose of this paper was to examine the literature to determine the status of IR in higher education. This examination is important to higher education for meeting the increased pressure and demands for accountability from those it serves.
A review of the literature presents a compilation of research, peer-reviewed journals, and non-peer reviewed journals on IR. The academic databases used were from the online library of Texas A&M University-Commerce and included, but were not limited to, Academic Search Premier, EBSCO, Education Research Complete, Eric, ProQuest, and Sage Publications.

The key descriptive terms used for this research were insitutional research, characteristics of institutional research, history of institutional research, and the role of institutional research.

A REVIEW OF THE LITERATURE

"What is IR? How old is IR? Why has IR been introduced in hundreds of universities globally?" (Chirikov, 2013, p. 457).

IR, an important function for any college or university and referred to as "organizational intelligence" (Chirikov, 2013, p. 458), varies from institution to institution and its role in the institution continues to evolve over time. The station of IR in higher education typically depends on the location of the institution and is impacted by the governing bodies, students, technology, processes for decision making, the location of the office within the institution, among other factors (Chirikov, 2013; Sapp & Temares, 1996).

Contemporary offices of IR are over 50 years old and entrenched in almost every college and university in the United States as well as many other institutions globally. Often

working behind-the-scenes, IR supports administrators with campus-wide decision making and strategic planning. These decision making and strategic planning support functions include research support to senior academic leaders, admissions, financial aid, curriculum design, enrollment management, staffing, student life, finance, facilities, athletics, alumni relations, as well as many other programs. In addition to the support provided for data-informed decision making, institutional researchers utilize data for reporting and comparing with other institutions. In short, a majority of the important decisions made in the academy concerning programs and responsibilities are based on data created by IR (Association for Institutional Research, n.d.).

THE EVOLUTION OF INSTITUTIONAL RESEARCH

The evolution of IR has faced numerous discrete and confusing questions of concern. First are questions of identity. IR does not have the benefit of a long history being a relatively new function in American higher education. Second are questions of organization. Recently there has been a focus of separation of IR from the institutional research of scholarship and publication functions.

Third are questions of location and scope within the institutional structure. The location of IR within in the institutional structure affects the ability of IR to function effectively, influences the nature of IR activities, and shapes the decision support role.
Fourth are questions of involvement in the assessment of student learning outcomes and institutional effectiveness processes. Some have suggested that IR should be involved significantly in the assessment of student learning outcomes and institutional effectiveness processes in spite of the fact that research reveals that this is not the case. This finding may be the result of limited resources of IR, as suggested by Sapp and Temares (1996).

The United States is breaking new ground in the evolution of IR. Some researchers date the beginning of IR in American universities to the eighteenth century (Chirikov, 2013; Sapp & Temares, 1996). The gathering, examining, and distributing of data first occurred between Harvard and the establishment of Yale in 1701 (Sapp & Temares, 1996).

As such, the evolution of the function of IR actually spans over three centuries. The identification of IR as a distinct function, however, began in the United States in the 1920s. During that period of time, Bureaus of IR were established in a number of universities. The 1960s was a time of major development for IR. It was during this time that national gatherings, local meetings, and seminars took place.

The Association for Institutional Research (AIR) was organized in Michigan in 1965 as a 501c (3) non-profit organization. AIR is the world's largest professional association for IR professionals.

AIR affords educational resources, best practices, and professional development opportunities for its growing membership of over 4,000. AIR's purpose is to assist with the gathering, examining and translating of data to support decision making in higher education (Association for Institutional Research, n.d.).
The role of IR during the 1960s was to produce descriptive statistics and factbooks for college university administrators and stakeholders. IR later began the functions of examining and analyzing, strategic planning, and reviewing academic programs.

Today, the role of IR in academic institutions in the United States is:

- **reporting and policy analysis;**
- **strategic planning, enrollment, and financial management; and**
- **outcome analysis, program reviews, accountability, accreditation, and institutional effectiveness (Chirikov, 2013).**

Mathies and Välimaa (2013) claimed that insitutions in the United States have a routine of examining their internal individual processes while European institutions have been a part of the whole and with no need to examine their internal individual processes.

However, higher education institutions are becoming autonomous and are therefore beginning to examinine their internal processes as well.
Mathies and Välimaa suggested that IR offices may be as effective in Europe as they have been effective in United States institutions. Lange, Saavedra, and Romano (2013) emphasized that higher education accreditation in the United States has existed for over 100 years while different methods of quality assurance has only existed in Europe 30 years and even less in developing coutries. It is this type of quality assurance in higher education that increased the need to know, the need to provide data, and the need for IR in the academy.

The evolution of IR began during the second half of the twentieth century in Western Europe. IR in the United Kingdom and Sweden grew out of committees of inquiry created by the government to focus on the growing need for higher education. An awareness of the role of IR began specifically in France, Italy, and Spain 20 years ago.

This awareness was prompted by efforts to link higher education and government. IR is distinct in Europe from IR in the United States. For example, IR is more scholarly in America while IR focuses more on policy and management in European universities. IR in the United Sates is generally a joint responsibility of university administrators rather than a distinct function. The AIR includes many junior analysts and institutional researchers while its European counterpart, the European Association of Institutional Research (EAIR, established in 1979) is more of an association of administrators and governmental policy analysts (Chirikov, 2013).

Australian universities initiated IR during the early 1970s. During this time the Australian government sought greater institutional accountability and looked to students, employees, and financial data.

Today, a number of Australian universities have distinct IR offices that focus on strategic planning, quality assurance, managing student life-cycle surveys, statistical analysis for internal and external reporting, resource allocation and planning, in addition to other areas of responsibility.

The Australasian Association for Institutional Research (AAIR) was founded in 1988. Later New Zealand universities developed the IR function as a result of attention to performance and accountability in the 1990s (Chirikov, 2013).

The last ten years has seen a significant growth in IR globally. The growth has primarily been in the planning and decision making functions. The establishment of a number of professional associations is a sign of the growing respect IR is experiencing. Some of the most noticeable associations include the Southern African Association for Institutional Research (established in 1994), the Canadian Institutional Research and Planning Association (established in 1994), the Higher Education Research and Policy Network based in Nigeria (established in 2000), the South East Asian Association for Institutional

Research (established in 2001), and the Middle East and North Africa Association for Institutional Research (MENA-AIR, established in 2009). Each of these associations is affiliated with AIR which focuses on promoting the role of IR in higher education (Chirikov, 2013).

A fundamental role of IR can be observed in a number of other countries. Latin American universities reveal some functions of IR, Chinese universities started initial practices of IR during the 1990s and remain in the early stages, and Russian universities have revealed the beginnings of IR with a few having a distinct IR office gathering data, reporting, and accreditation.

The evolution of the role of IR demonstrates that it is a global trend, which indicates that there must be a number of driving forces in colleges and universities that assists IR, as suggested by Chirikov (2013).

Lange, Saavedra, and Romano (2013) predicted that the need for information and accountability will increase for all insitutions of higher education around the world. Furthermore, institutional standing, national aspirations, and the quest for institutional performance yardsticks pressure colleges and universities to compete for global rankings as well as international projects requiring the uniformity of data across the academy.

Two examples of these projects are the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) International Standard Classification of Education (ISCED) and the Organisation for Economic Co-operation and Development's (OECD) Assessment of Higher Education Learning Outcomes (AHELO). Calderon and Mathies (2013) cautioned that it will become critical for IR profesionals to discover ways to become fundamental in support of their individual insitututional missions.

To fall short will provide opportunities for other departments to begin to undertake the roles and responsibilities that were previsouly performed by IR offices.

Sapp and Temares (1996) offered the following six suggestions for IR offices;

- **make available IR services,**
- **customize data for reports requested by administration, c) customize data also for smaller units for use and uniformity across the institution,**
- **consider how focus groups can have more impact than traditional analyses, e) identify key issues and proactively develop reports that deal with these issues, and**
- **invest time interpreting data for clients to enhance IR support.**

These six suggestions should increase the worth of IR to the college or university communities and boost the visibility of the office, as claimed by Sapp and Temares.

Calderon and Mathies also maintained that a single IR office staffed with a wide range of capabilities will increase the reputation of the office within the institution in making data-informed decisions.

THE CHARACTERISTICS OF INSTITUTIONAL RESEARCH

IR in America has been called "institutional studies, institutional analysis, and institutional planning" (Sapp & Temares, 1996, p. 3). The role of gathering, examining,

and distributing data for planning, policy formulation, and decision support has remained consistent however (Sapp & Temares, 1996).

Research has suggested that approximately 50% of the IR departments are managed by individuals with doctoral degrees (Lindquist, 1999; Sapp & Temares, 1996). Of the doctoral degrees, 40% are in education or the social sciences, 30 % are in humanities and fine arts, 10 to 15 % are in the physical sciences including mathematics and computer science, and 10 to 15 % are in business (Lindquist, 1999). IR professionals with doctoral dregrees typically have limited teaching responsibilities (Sapp & Temares, 1996).

The majority of IR professionals have master's degrees in the fields of social sciences or education with less than six years of IR experience.

Research has also suggested that the full-time equivalent size of an institution is correlated with the size of the IR office.

The larger the IR staff, the greater the chance that IR professionals will have doctoral degrees and IR experience (Sapp & Temares, 1996).

Lindquist (1999) reported on the results of five national surveys conducted between 1981 and 1998 on AIR membership.

Results revealed that approximately 60% have six or more years in the profession, 40 % have 11 plus years, and 10% has 20 or more years experience in IR.

While many IR professionals are inexperienced they tend to remain in the profession, as claimed by Lindquist. The demographics of IR professionals are as follows:

- **88% in the late 1980s to 86% in the late 1990s (Lindquist, 1999) to 84% in the early 2000s (Knight & Leimer, 2010) are white/Caucasian and people of color represent the remaining IR professionals (which includes 4 to 5 % African Americans, 3 to 5 % Asian American or Pacific Islander, 3% Hispanic, 1 % American Indian or Alaskan Native, and 2 % are "other;"**
- **26% are in their 30s or younger, 36 % are in their 40s, and 38 % are 50 or older; and,**
- **women in the field of IR have increased from 25% in the late 1980s to 48% during the late 1990s (Lindquist, 1999) to 62% in the early 2000s (Knight & Leimer, 2010). Hence, Lindquist (1999) maintained that this suggests that IR is a young, growingly diverse, and feminine field.**

Of the total of IR professionals, 63% are from public universities, 35% are from private not for-profit universities, and 2% are from for-profit universities (Knight & Leimer, 2010).

About 60% of IR professionals are from four-year colleges or universities, 20% are from two-year colleges, 4 to 10% are from government agencies or system offices, 3 to 5% are from graduate, professional, or upper-division institutions, and 1 to3% are from private business.

Of the colleges and universities, 26% are from research universities; 9% are from doctoral degree granting universities; 22% are from comprehensive colleges and universities; 10% are from liberal arts colleges; 20% are from two-year community,

junior, and technical colleges; 4% are from other institutions, and 10% are not from postsecondary institutions (Lindquist, 1999).

About 20 to 25% are small institutions, with five thousand or fewer students; 30 to 45% are from moderate-size institutions, with five thousand to twenty thousand students; and 25 to 35% are from large institutions, with over twenty thousand students. The majority of IR professionals are from one-person or small offices, having two or fewer professional staff; 20 to 25 % are from medium-size offices, with three or four professional staff; and 20 % are from large offices, with five or more professional staff. Close to 60% are from academic affairs, 38% from academic services divisions, or 26% from departments reporting to the president or chancellor with 70% from an IR office that reports to a vice president or the president (Lindquist, 1999).

According to Knight and Leimer (2010), experienced IR professionals are not easy to locate and training IR professinals requires significant time and effort. There is not an official educational track that particularly grooms IR professionals other than a handful of newly created certification programs. Even recently hired experienced IR professionals need time to become acquainted with their employers' folkways. Generally IR offices have one to two staff members and the loss of one employee can cripple IR operations. As a result, turnover costs are significant when IR professionals terminate their employment.

Knight and Leimer (2010) claimed that 22% of IR professionals intend to leave their employer and 31% intend to leave in the near future. Opportunities for advancement, job appreciation, and compensation are of significant value to IR professionals. Opportunities for advancement, appreciation, and compensation also impact directly and indirectly intention to look for other employment.

IR professionals have to leave their empoyers and look elsewhere for better opportunities for advancement, appreciation, and compensation because IR offices generally have so few employees. Knight and Leimer also claimed that "non-monetary rewards and recognition can be instrumental in creating an environment in which institutional researchers feel supported and choose to stay at their job" (p. 126).
Consequently, the role IR has in an institution has an effect on intention to stay with an employer.

THE ROLES OF INSTITUTIONAL RESEARCH

The roles of IR are broad and varied among institutions. The greater the experience and higher the educational degrees of the staff, the more complicated and high-level are the roles of IR (Sapp & Temares, 1996).

Research has indicated that student enrollment management, gathering data from surveys and questionnaires, creating institutional factbooks, peer institutional data exchange, and student related reporting and projection are the more frequent roles performed by IR (Lindquist, 1999; Sapp & Temares, 1996). The roles that are performed less frequently include budget development, revenue projection, academic program review, student evaluation, space allocation and utilization, and academic research resource development statistics.

An important role of IR is the gathering and examining of data as well as the translation of data useful to decision makers. In addition, IR performs the role of alerting decision makers of imminent problems (Sapp & Temares, 1996).

According to Webber (2012), IR often serves in partnership with coworkers requesting help with survey design, statistical analysis, and assessment and institutional review as a result of their knowledge of higher education assessment, organizational theory, and research design. IR is *au faut* that the data narrates "the story" (Brittingham, O'Brien, & Alig, 2008, p. 70) about the institution.

The data can also help the researcher in identifying which data are most valuable for telling the story and how the data could be presented most appropriately. Furthermore, accrediting bodies typically request that standard data be provided in a manner so that all involved are working with consistent information.

Communicating up front to all involved that someone working in IR is the point person can facilitate the accreditation process, as suggested by Brittingham et al. This is particularly true for colleges and universities with more than one accrediting body. Professionals in the field of IR will be able to facilitate discussions regarding the data that are needed and the correct forms to be completed in a timely manner, as further suggested by Brittingham et al.

There exists a common misconception that institutional data must be computerized and available to anyone who knows the correct button to click to submit for a report. According to Voorhees (2008) however, IR has spent a considerable amount of time collecting, examining, and distributing data to create the reports requested.

It is this considerable amount of time that has been spent working with data that makes the role of IR distinct and valuable to the institution.
Successful strategic planning utilizes both quantitative and qualitative data collection.

IR can add value to an institution's strategic planning processes. IR offices are generally the gatekeepers of so many "pieces of the planning puzzle" (Watt, Chrestman, & Johnston, 2001, p. 2) and are therefore most capable for responding to requests for data (Hall & Baldwin, 1998).
For example, the College of Engineering at the University of Miami, a major southeast private research university, was in critical condition as maintained by Sapp and Temares (1996). The College was experiencing a 25 million dollar full-cost deficit, enrollments declined from 1,200 students in the 1980s to only 703 students in fall 1996, its graduates were experiencing a shift in the job market, and faculty research productivity was low. As a result, several members of the Board of Trustees and senior administration were recommending that the College close its doors.

A committee was organized including the dean of the College who was also the vice president for information resources. Consequently he was knowledgeable about the types of reports, analyses, and support services IR could make available to the committee given that the director of planning and IR reported directly to him. The office of planning and IR was able to provide the collection, examination, and distribution of the following data:

- **student and faculty demographics**
- **prediction models, c) student survey results,**
- **focus groups,**
- **credit hour and financial data examinations. Furthermore, the director of planning and IR assisted with data selection, analysis, interpretation, and support for the strategic planning process (Sapp & Temares, 1996).**

Ultimately, the dean of the College and vice president for information resources recommended that the College remain open.

This decision was supported by the data provided by IR. In addition, the department of planning and IR examinations suggested ways in which the College could accomplish some of the objectives recognized through the strategic planning process as well as update the committee regarding the status of the College so that they could make a more informed decision regarding the future of the College (Sapp & Temares, 1996).

According to Nichols (1990), as IR or outcome assessment becomes more established in colleges and universities, the question of what opportunities this presents to researchers aspiring to move beyond mere reporting to more advanced roles becomes the focus. Some potential roles surface such as implementation team coordinator, institutional planner, departmental activity facilitator; and assessment data gatherer. Each role differs in its appeal in supporting professional development and what is generally expected from these roles.
Consequently, Matier, Sidle, and Hurst (1994) argued for a more vigorous and broader perception of the responsibility and purpose for IR in colleges and universities. Specifically, this perception focuses on how decisions are being made in institutions of higher education. Those employed in IR can no longer merely gather, examine, and distribute data to assist with making decisions.
IR must be "planners" (p. 6) because planning is the "heart" (p. 7) of decision making. IR must continue to be the traditional decision making support by collecting, examining, and distributing information. However, IR must also be the "information architects, the change agents, and the consultants of choice" (p. 4) in their individual colleges or universities.

Counelis (1993) recommended a role for IR. He maintained that in light of the dearth of empirical data on college and university ethical conduct is a grave shortcoming. Through inventive IR planning two innovative objectives can be dealt with.

The first objective for IR is to make available data on the ethical behavior of university personnel. Colleges and universities will be able to develop policies to achieve knowledgeable moral guidance.

The second objective for IR is to make available data to support decision making for guiding institutional ethical behavior. The institution's well-being and the IR role in the research of the ethical behavior would consequently be intertwined.

The academy is in a constant state of evolution, as claimed by Matier et al. (1994). Higher education is changing and emerging into a more multifaceted entity.

The strain from change and complexity is exacerbated by the growing financial restrictions confronting higher education, the proliferation of technology, and mounting expectations from the society higher education serves.

Colleges and universities have to continually do more with less. Colleges and universities also have to improve without growing. These requirements of doing more with less and improving without growing encourages a transition from past guarded and dictatorial decision making processes to a more transparent process.

As an alternative, decisions made in institutions of higher education have become a more open, mutual, and inclusive process.

Administrators are still charged with, compensated for, and responsible for making decisions. Frequently they are becoming aware of their individual limitations in making wide-spread institutional decisions.

Those in the role of administration in higher education have always required support for decision making however, the manner of the support is transforming the decision making and planning processes. The role of IR in colleges and universities is more than decision support.
The role of IR should include the role of information architects, as maintained by Matier et al. (1994).

After all, it is the IR office that is the "consumers and users" (p. 14) rather than "owners or responsible administrators" (p. 14) of the information. Matier et al. also alleged that IR should be the change agents or the "catalysts" (p. 16) of change to suport the decisions of administration.

In addition, Matier et al. asserted that IR should be the consultants of choice because of their skill in the area of research, data collection, examination, and distribution.

Some maintain that IR is vital for decision making in the academy. Moreover, the increasing competition, mounting costs, the call for cost restraints, demand for accountability, reporting requirements, and declining enrollment and graduation rates have expanded the need for IR. Across higher education, IR is being asked to serve vital roles supporting decision making, strategic planning, and policy development. While many administrators in higher education realize the need for IR, some have not established offices of IR within their respective institutions.

The worth of IR to college and university planning and policy development has been well acknowledged in the research (Delaney, 1996).

Findings from a research study of 243 New England colleges and universities conducted by Delaney (1996) resulted in the following six recommendations for institutional administrators;

- **to enhance the capacity of IR to conducting more complex research studies,**
- **to develop inventive ways to transfer the focus from simply reporting to researching, c) to increase the capacity for conducting IR,**
- **to create and support high level audiences for IR studies,**
- **to increase IR involvement in academic areas, and**
- **to expand the focus of IR to include relevant factors and trends outside if the institution.**

These six recommendations should promote critical thinking and open discussions concerning the role of IR in the future as it continues to evolve.

In summary, an examination of the literature revealed that the evolution of IR is in progress. IR professionals tend to be: young, have graduate degrees, from 4-year colleges or universities, and inexperienced but remain in the profession.

IR professionals are gradually becoming more diverse, are rapidly becoming feminized, are from public universities, and are from medium to large-size institutions.

The role of IR is varied according to insitutional type and size. Typical responsibilities of IR offices include student retention, student needs assessments, program evaluations, financial planning, economic impact studies; peer institutional studies; factbook preparation, enrollment management, and faculty and employee related topics.

CONCLUSIONS

The academy has responded to the call for increased accountability. Colleges and universities have been coming under pressure to explain the cost of higher education. IR has been responding to this pressure by presenting data to support strategic decisions. The burgeoning amounts of data and the capability for comparing data is unparalleled. Consequently, the role of IR has been evolving since its inception as a distinct function in higher education for over 50 years and varies from institution to institution globally. However, the fundamental role of gathering, examining, and distributing data for planning, policy formulation, and decision support has remained consistent.

IR is an evolving field as evidenced by its global growth. Research has revealed two distict findings about the evolution of IR professionals in the United States. First, women professionals in IR have grown from 25% to 62% in 30 years. That represents an increase of 148%. Second, with students enrolling in online courses, only two percent of the IR professionals are from for-profit insitutions. For-profit universities have not kept up with the overall growth of IR in American universities. One could assume from this finding that there is no profit in IR.

IMPLICATIONS

The implications from this research for higher education are numerous. This examination is important to higher education to be able to continue to meet the increased pressure and demands for accountability from those it serves. This examination is also important to IR offices to be able to compare the roles, characteristics, and evolution of their individual offices with other institutional offices locally as well as globally.

In addition, this examination is important to IR professionals for individual opportunities for advancement, job appreciation, and compensation which are of significant value to IR professionals. The implications from this research encourage critical thinking and open discussions concerning the roles and characteristics of IR professionals in the future as it continues to evolve.

RECOMMENDATIONS

It is recommended that additional research be conducted to determine if similar findings are revealed.

Additional studies could also be conducted on why only two percent of IR professionals are from for-profit institutions, if IR professionals are continuing to become more diverse over time, if IR professionals are more experienced over time, and why women constitute the majority of IR professionals.

It is also recommended that ongoing research be conducted to monitor the continual evolution of IR in higher education.

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REFERENCES

The Association for Institutional Research: Data and Decisions for Higher Education (AIR). (n.d.). *AIR Quick Facts*. Retrieved from: http://www.airweb.org/AboutUs/Pages/default.aspx

Brittingham, B., O'Brien, P. M., & Alig, J. L. (2008). Accreditation and institutional research: The traditional role and new dimensions. *New Directions For Higher Education*, (141), 69-76.

Calderon, A., & Mathies, C. (2013). Institutional research in the future: Challenges within higher education and the need for excellence in professional practice. *New Directions For Institutional Research*, (157), 77-90. doi:10.1002/ir.20040

Chirikov, I. (2013). Research universities as knowledge networks: The role of institutional research. *Studies In Higher Education*, *38*(3), 456-469.

Counelis, J. S. (1993). Toward Empirical Studies on University Ethics: A New Role for Institutional Research. *The Journal of Higher Education*, (1). 74.

Delaney, A. M. (1996). The role of institutional research in higher education: Enabling researchers to meet new challenges. Paper presented at the 36th Annual Forum of the Association for Institutional Research, Albuquerque, NM.

Hall, M., & Baldwin, B. (1998). The role of institutional research in student evaluations of teaching. Paper presented at the 38th Annual Forum of the Association for Institutional Research, Minneapolis, MN.

Harrington, C., & Chen, H. (1995). The characteristics, roles and functions of institutional research professionals in the Southern Association for Institutional Research. Paper presented at the 35th Annual AIR Forum, Boston, MA.

Knight, W. E., & Leimer, C. L. (2010). Will IR staff stick? An exploration of institutional researchers' intention to remain in or leave their jobs. *Research in Higher* Education, *2*(51), 109–131. doi 10.1007/s11162-009-9152-9

Lange, L., Saavedra, F. M., & Romano, J. (2013). Institutional research in emerging countries of Southern Africa, Latin America, and the Middle East and North Africa: Global frameworks and local practices. *New Directions For Institutional Research*, (157), 23-38. doi:10.1002/ir.20037

Lindquist, S. B. (1999). A profile of institutional researchers from AIR national membership Surveys. *New Directions For Institutional Research*, (104), 41-50.

Mathies, C. & Välimaa, J. (2013) Is there a need for a European institutional research?, *Tertiary Education and Management, 19*(1),85-96, doi: 10.1080/13583883.2012.747558

Matier, M. W., Sidle, C. C., & Hurst, P. J. (1994). *How it ought to be: Institutional researchers' roles as we approach the 21st Century. AIR 1994 Annual Forum Paper*.

McLaughlin, G., McLaughlin, J., & Kennedy-Phillips, L. (2005). Developing institutional indicators: The role of institutional research. *Online Submission*,

Middaugh, M. F., Kelly, H. A., & Walters, A. M. (2008). The role of institutional research in understanding and describing faculty work. *New Directions For Higher Education*, (141), 41-56.

Nichols, J. O. (1990). *The role of institutional research in implementing institutional effectiveness or outcomes assessment*. Association for Institutional Research (AIR) Professional File, (37).

Sapp, M. M., & Temares, M. L. (1996). *Reengineering a college of engineering: The role of an institutional research office.* Paper presented at the 36th Annual Forum of the Association for Institutional Research, Albuquerque, NM.

Trainer, J. F. (2008). The Role of Institutional Research in Conducting Comparative Analysis of Peers. *New Directions For Higher Education*, (141), 21-30.

Voorhees, R. A. (2008). Institutional research's role in strategic planning. *New Directions For Higher Education*, (141), 77-85. doi: 10.1002/he.295

Watt, C. E., Chrestman, R. E., & Johnston, B. A. (2001). The role of institutional research in space planning: Helping all the pieces fit together. Paper presented at the 41st Annual Meeting of the Association for Institutional Research, Long Beach, CA.

Webber, K. L. (2012). The role of institutional research in a high profile study of undergraduate research. *Research In Higher Education*, *53*(7), 695-716.