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ABSTRACT

Results of a survey of institutional research curricula in 88 U.S. higher education programs are presented. The extent to which institutional research core courses are theoretical or practitioner-oriented was also assessed. Eight of the programs offered an area of concentration in institutional research, and 17 programs had an institutional research core course. The programs are identified and the content of the curriculum is described (e.g., degrees offered, textbooks, course topics). Planning topics received the most emphasis in institutional research courses, while topics related to facilities and research methodology received low emphasis. Most institutional research core courses emphasized theoretical concepts, but the correlation coefficient was significant in only a few cases. As expected, programs with an area of concentration tended to stress theoretical concepts in their core course, while programs within an institutional research concentration were more practitioner-oriented. Included is a list of recommended or required textbooks used in the institutional research core courses, including the publisher and publication date. For 47 institutional research course topics, emphasis scores and orientation scores are provided. 21 references. (Author/SW)

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Professional Development for Institutional Research:
A Descriptive Profile of Academic Programs
and an Analysis of Curriculum

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Professional Development for Institutional Research:
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Abstract

A survey of 88 American higher education programs found eight of the programs offer an area of concentration in institutional research and seventeen programs have an institutional research core course. These programs are identified and the content of the curriculum is described (e.g., degrees offered, textbooks, course topics). Planning topics received the most emphasis in institutional research courses; topics related to facilities and research methodology received low emphasis scores.

The theoretical- or practitioner-orientation of the core course is analyzed in the second section. Most institutional research core courses emphasize theoretical concepts, but the correlation coefficient was significant in only a few cases. As expected, programs with an area of concentration tend to stress theoretical concepts in their core course, while programs without an institutional research concentration are more practitioner-oriented.

**Professional Development for Institutional Research:
A Descriptive Profile of Academic Programs
and an Analysis of Curriculum**

A series of surveys suggest that higher education is becoming the predominate field of study for institutional researchers. Specifically, of those Association for Institutional Research (AIR) members with doctorates, the proportion of members with doctorates in higher education has increased from 8 to 30 percent in a little more than a decade (Tetlow, 1979). Similarly, an informal study of career development in institutional research found that higher education is the most prevalent doctoral field of study in a group of nationally-known, distinguished institutional researchers (Johnson, 1982).

If increasing numbers of institutional researchers are receiving their doctorates from higher education programs, then what do we know about the institutional research curriculum offered in these programs? How many higher education programs offer areas of concentration in institutional research, an institutional research core course, or both? What topics are typically discussed in institutional research courses, and how much emphasis is given to each of the topics? Does the institutional research curriculum tend to emphasize theoretical concepts, or practitioner skills? These are questions to which we have no satisfactory answers, but which are of interest to institutional researchers, faculty who teach institutional research courses, prospective graduate students, and others interested in professional development for institutional research.

The principal purpose of this study is to provide a descriptive profile of the institutional research curriculum in American higher education programs. A secondary purpose is to determine the extent to which the institutional research core courses are theoretical- or practitioner-oriented.

Perspectives on Professional Development in Institutional Research

Preparation for institutional research through higher education programs has been viewed favorably by some institutional researchers and higher education faculty, while others have expressed concern about the type of education these programs offer to prospective institutional researchers. This review of the institutional research professional development literature first identifies the skills and knowledge which institutional researchers should possess. The ability of higher education programs to provide this preparation is examined next, this question being the principal focus of this review. Finally, the results of previous surveys of the institutional research curriculum are summarized.

The skills and areas of knowledge required for institutional research have been outlined in a number of sources (e.g., Johnson, 1979; Saupe and Montgomery, 1970). One list which is representative of what others have said is offered by Stecklein (1970). This list includes:

- familiarity with the history and traditions of higher education;
- a working knowledge of statistics and experimental design and their application to higher education problems;
- an understanding of various research techniques including questionnaire and survey design, standardized examinations, and interviewing techniques;
- familiarity with business techniques and business administration procedures;
- college teaching experience, if possible; and
- the ability to work well with people.

Stecklein concludes by stating that "The single most important requisite is having an understanding and knowledge of the operation of higher education institutions and the kinds of problems that they face" (Stecklein, 1970, p.

4-133). If these are the skills and knowledge institutional researchers need, then what is the best method of providing this training? The discussion on the following pages addresses this question in terms of academic preparation for institutional research. Effective institutional researchers may learn all they need to know by inservice training and, in the 1980's, this is an increasingly common method of preparation (Peterson and Corcoran, 1985). However, the principal focus of this study is academic preparation for institutional research and the following discussion focuses on this avenue of professional development.

Among those who believe higher education programs can serve a valuable role in professional development for institutional research is Doi (1979). He believes both institutional research and higher education programs have benefited from the establishment of an institutional research curriculum within these programs. "These programs serve as the training ground for careers in institutional research and also as legitimate 'academic homes' for institutional research officers" (Doi, 1979, p. 40). The existence of a higher education program as an academic home is especially important because it gives institutional research officers the opportunity to teach courses, supervise doctoral dissertations, and obtain an academic title (Doi, 1979), the latter being very important for establishing credibility of the institutional research officer with other faculty in the institution.

A similar view is held by Fincher (1985) who has characterized institutional research and higher education programs as two individuals in the same boat who must learn to row together. According to Fincher (1985):

Graduate programs in higher education should assume more responsibility for the training and preparation of institutional researchers. And institutional researchers should look to doctoral programs in higher education for better guidance and direction in: (a) identifying researchable ideas and issues, and (b) designing institutional studies that throw light on the larger concerns of

colleges and universities as crucial, sociocultural institutions.
(p. 219)

Institutional research, in particular, benefits from higher education graduates who "have mastered both a fund of conceptual knowledge about colleges and universities, and appropriate methods of inquiry, analysis, and interpretation" (Fincher, 1985, p. 219).

Finally, in her study of education preparation opportunities for institutional researchers, Gail Brackett (1983/1984) concluded that higher education programs can play a major and legitimate role in educating institutional researchers and these degree programs are necessary if institutional research is to be recognized as a profession.

In contrast, other researchers and faculty members have viewed the potential contribution of higher education programs to institutional research less favorably. Perhaps the strongest statement in this regard has been made by Dressel and Mayhew (1974) who believe:

Institutional research requires such a range of knowledge and proficiencies that the typical higher education program may be the least desirable preparation. The intelligent institutional researcher can quickly learn on the job most of what he needs to know about higher education problems. What he basically requires is some understanding and sympathy with academic aspects of the university and sufficient skill in the use of analytical techniques to present data that will provide greater insight into university operations and thereby contribute to wiser decisions. (p. 124)

Later Dressel (1979) reinforces this view by expressing dismay that higher education programs are being recognized as effective training for institutional research. He believes "it would be tragic if institutional research became narrowly defined as a profession related to a particular doctoral program in any one department or college of a university" (p. 45).

Perhaps the most common view among institutional researchers is that prospective institutional researchers need exposure to the higher education

curriculum, as well as a variety of other fields of study. This is certainly implied in Stecklein's (1970) list of skills and knowledge noted above. It is also evident in Suslow's belief that "no single or simple combination of disciplines provides sufficient knowledge to analyze the effectiveness of universities and colleges in a systematic and critical manner" (Suslow, 1972, p. 1).

If there is no completely correct answer to the question of the best academic preparation for the institutional research practitioner, then what is known about those higher education programs which do offer institutional research areas of concentrations or institutional research course work? A survey from the mid-1970's reported that of the 57 programs in higher education, "eight at that time reported a specific concentration in institutional research, sixteen offered courses in institutional research, and twenty-two included it as a topic in one or more courses" (Dressel, 1979, p. 45). An informal survey in 1980 identified ten higher education programs which offered institutional research concentrations, eight offered course work in institutional research, and six offered courses which served as a foundation for institutional research (Fletcher, 1980, 1980-81). Considerably different results were found by Brackett (1983/1984) and Crosson and Nelson (1984). Brackett found only two higher education programs which offered degree programs for institutional research practitioners. In contrast, Crosson and Nelson found 26 programs which offer institutional research as an area of specialization. The differences between these two surveys can be explained by how each defined a concentration in institutional research. Brackett defined institutional research narrowly and sought only formally recognized degree programs, whereas Crosson and Nelson included programs which allow a student to specialize in institutional research within a degree program such as administration.

Method

The data for this study was collected by a survey of all 88 American higher education programs listed in the *ASHE Directory of Higher Education Programs* (Shorr and Hoogstra, 1984). The survey was composed of three parts:

Part I: Area of concentration. This portion of the survey collected information about the program's institutional research area of concentration (i.e., major or minor), if one was offered. The definition used in this survey required the emphasis of the concentration to be research on the individual college or university, or group of institutions (i.e., concentrations such as educational research or MIS were excluded). Additionally, it was required that the concentration have been formally adopted by the faculty. If an institutional research concentration was offered, descriptive information about the concentration (e.g., title, degrees offered) was requested.

Part II: Core course information. Information about the institutional research core course, if any, was collected in this section. A core course was defined to be one in which the primary focus of the course is research on the individual college or university, or group of institutions. Specifically excluded were courses in which some attention is devoted to institutional research, but which have a different principal focus (e.g., Academic Program Evaluation). Requested information included course title, prerequisites, textbooks, and other descriptive data.

Part III: Core course content. A list of topics typically discussed in an institutional research core course was presented in Part III. The faculty member who teaches the core course was asked to indicate the extent to which each topic was emphasized in the course.

To insure that the survey questions were complete and unambiguous a review panel of institutional research faculty members was convened. This panel reviewed the survey and made several valuable suggestions which were incorporated into the survey before being sent to the higher education programs.

The original mailing of the survey took place in October 1985, and two follow-up mailings occurred in December 1985 and June 1986. Additionally, in March 1987 all programs which indicated a concentration or core course was offered were asked to verify what had been submitted earlier. Seventy-six of the 88 surveys were returned, a response rate of 86 percent.

Descriptive Profile of Institutional Research Concentrations

The eight higher education programs which offer an area of concentration in institutional research are shown in Table 1. The second column of this table indicates whether the program offers an institutional research core course, the third column shows the specific title of the concentration, and the final column lists the degree programs which are offered.

Table 1
Higher Education Programs Which Offer
an Institutional Research Area of Concentration

<u>Institution</u>	<u>Core Course</u>	<u>Title of Concentration</u>	<u>Degrees Offered</u>
Arizona State Univ	Yes	Institutional Research	Ph.D., Ed.D
Univ of Arkansas	No	Institutional Research	Ed.D
Columbia Univ, Teachers College	No	Institutional Research	M.Ed., Ed.D
Florida State Univ	Yes	Institutional Research	M.A., Ph.D., Ed.D, Ed.S
Illinois State Univ	Yes	Research, Statistics and Evaluation	Ph.D., Ed.D.
Univ of Michigan	Yes	Institutional Planning, Policy Analysis, and Resource Management	Ph.D.
Univ of Southern California	Yes		
Syracuse University	Yes	Higher Education Research, Evaluation, and Policy Studies	M.A., Ph.D., Ed.D.

The survey respondents were asked if an institutional research core course or internship was required, recommended, or optional for students with concentrations in institutional research. Generally, if a core course was offered, it was a requirement whereas internships tended to be recommended for the institutional research major. At the University of Arkansas, one of two programs without a core course, internships are the principal component of the institutional research area of concentration.

Descriptive Profile of Institutional Research Core Courses

Institutions offering core courses in institutional research are shown in Table 2. In addition to the results shown in this table, the survey requested information such as prerequisites, textbooks, and a list of course materials. In some cases a syllabus was enclosed which provided this information and these syllabi have been examined in considerable detail in Viehland (1986).

Table 2
Higher Education Programs which offer
an Institutional Research Core Course

<u>Institution</u>	<u>Concentration</u>	<u>Title of Core Course</u>
Arizona State University	Yes	Institutional Research
University of Arizona	No	Institutional Research and Planning
Catholic University of America	No	Institutional Research and Planning
Florida State University	Yes	Institutional Research in Higher Educ
University of Georgia	No	Institutional Research and Planning
Southern Illinois Univ-Carbondale	No	Institutional Research
Illinois State University	Yes	Planning in Higher Education
University of Massachusetts	No	Institutional Research for Strategic Planning
University of Michigan	Yes	Planning, Policy Analysis, and Institutional Research
University of Mississippi	No	Institutional Research and Planning in Higher Education
Montana State University	No	Institutional Research
New York University	No	Assessment in Higher Education
Univ of Southern California	Yes	
Syracuse University	Yes	Institutional Research and Planning
University of Texas	No	
West Virginia University	No	Institutional Analysis and Planning
Univ of Wisconsin-Madison	No	Theory and Practice of Educ Planning

No core course has required prerequisites, but several listed recommended courses (e.g., organization and governance) or subject areas (e.g., quantitative methods) with which the student should be familiar.

In most programs the institutional research core course is offered annually. A few institutions offer the course biannually, one institution indicated the course is offered when there is sufficient student demand, and at another institution the course is listed in the course catalog but has not been taught in recent years.

Required and recommended textbooks used in ten of the institutional research core courses are presented in Table 3 (the other seven courses did not indicate what textbooks were used). In addition to these texts, a number of courses use articles from the New Directions for Institutional Research series, reports published by the institution's institutional research office, and materials from the Association for Institution Research. Indeed, faculty who teach institutional research courses tend to rely on these photocopied materials, rather than published books and monographs (Viehland, 1986).

Institutional Research Course Topics

The survey instrument used in this study asked the faculty member who regularly teaches the institutional research course to indicate the extent to which each of 47 topics was emphasized in the institutional research course in the most recent semester or quarter it was taught (usually Spring or Fall 1985). This list of topics was developed from a review of institutional research course syllabi and had been expanded and clarified by the review panel. Each course topic was rated using the following five-point scale:

1. No Emphasis: the topic was not discussed in the course.
2. Little Emphasis: coverage of the topic was limited to being mentioned. That is, the topic was discussed only briefly or its existence was acknowledged without class discussion or assignment.

Table 3
Recommended or Required Textbooks
Used in Institutional Research Core Courses

- Jedamus, Paul, Marvin W. Peterson, and Associates. *Improving Academic Management: A Handbook of Planning and Institutional Research*. San Francisco: Jossey-Bass, 1980 (6 courses).
- Keller, George. *Academic Strategy: The Management Revolution in American Higher Education*. Baltimore: John Hopkins University Press, 1983 (6 courses).
- American Association of State Colleges and Universities. *A Future Creating Paradigm: A Guide to Long Range Planning from the Future for the Future*. Washington, D.C.: AASCU Resource Center for Planned Change, 1979.
- Cope, Robert. *Strategic Planning, Management, and Decision Making*. AAHE/ERIC Research Report #5, Washington, D.C.: American Association for Higher Education, 1981.
- Craven, Eugene (ed.). *Academic Program Evaluation*. New Directions for Institutional Research, No. 27. San Francisco: Jossey-Bass, 1980.
- Dressel, Paul L. and Associates. *Institutional Research in the University: A Handbook*. San Francisco: Jossey-Bass, 1971.
- Firnberg, James W. and William P. Lasher (eds.). *The Politics and Pragmatics of Institutional Research*. New Directions for Institutional Research, No. 38. San Francisco: Jossey-Bass, 1983.
- Hopkins, David S. P. and William F. Massy. *Planning Models for Colleges and Universities*. Stanford, California: Stanford University Press, 1981.
- MacRae, Duncan, Jr. and James A. Wilde. *Policy Analysis for Public Decisions*. North Scituate, Mass: Duxbury Press, 1979.
- Miller, Richard I. *The Assessment of College Performance*. San Francisco: Jossey-Bass, 1979.
- Morrison, James L., William L. Renfro, and Wayne I. Boucher. *Futures Research and the Strategic Planning Process: Implications for Higher Education*. ASHE/ERIC Research Report #9. Washington, D.C.: American Association for the Study of Higher Education, 1984.
- Scott, Robert A. (ed.). *Determining the Effectiveness of Campus Services*. New Directions in Institutional Research, No 41. San Francisco: Jossey-Bass, 1984.

3. Some Emphasis: the topic was discussed by the instructor and class, but not in great detail. A minor reading or out-of-class assignment may have been devoted to the topic.
4. Much Emphasis: perhaps most of a class period was devoted to discussion of this topic. Probably a reading or out-of-class assignment related to the topic was assigned and students were responsible for being tested on the topic.
5. Heavy Emphasis: at least one class period was devoted to discussion of this topic. Perhaps a major reading or project was devoted to this topic and/or students certainly were expected to be tested on this topic.

Of the 17 programs with an institutional research course, ten programs returned the survey with this course content data. Accordingly, the results discussed below were obtained from an analysis of ten courses.

Six of the 47 course topics were discussed in all ten institutional research courses (see frequency column in Table 4). Most of the other 41 topics were discussed in eight or nine of the ten courses and all topics were discussed in at least three of the ten courses.

To obtain an emphasis score for each topic, the data were averaged across courses and the results are shown in Table 4 with the topics being ranked from most emphasis to least emphasis. The topic receiving the highest score was strategic planning, 4.13 on the five-point emphasis scale. (A score of 1, no emphasis, was excluded from this average since this score implied "not discussed in the course." Thus the lowest possible score was 2.00.) Although generalizations about these rankings are difficult, it may be observed that a number of planning topics were emphasized strongly in these courses. Traditional institutional research activities such as retention, peer institution selection, and self study tended to fall in the middle of this ranking. The topics receiving low emphasis scores tended to be related to facilities or research methods and statistics. A review of eight syllabi used

Table 4
Emphasis Score of Institutional Research Course Topics

<u>Institutional Research Course Topic</u>	<u>Emphasis Score</u>	<u>Freq</u>
Strategic planning.....	4.13	9
Definition of and issues in institutional research.....	4.10	10
Environmental scanning and analysis.....	3.88	9
Planning model concepts.....	3.83	7
Academic program review and evaluation.....	3.67	9
Placement of institutional research in organizational structure..	3.60	10
Political aspects of institutional research.....	3.44	9
Outcomes measurement.....	3.44	9
Faculty activity analysis.....	3.33	9
Catastrophe theory.....	3.33	3
Impact of college.....	3.29	7
Microcomputer applications (spreadsheets, networking, etc.).....	3.17	6
State master planning.....	3.13	8
Enrollment projections (econometric, cohort survival, etc.).....	3.11	9
Institutional cost studies.....	3.11	9
External reporting (preparing HEGIS, NSF, etc. surveys).....	3.11	10
Use of information in decision-making.....	3.10	10
Peer institution selection and data exchange.....	3.00	7
Preparation of a factbook.....	3.00	7
Futures analysis and research.....	3.00	8
Theories of institutional change.....	3.00	6
Table preparation (titles, organization, etc.).....	3.00	3
Facility utilization studies.....	3.00	8
Collective bargaining info requirements.....	3.00	5
How to make an institutional enrollment projection.....	3.00	9
Decision support systems.....	3.00	9
Retention studies.....	2.88	8
Enrollment management.....	2.88	8
Mainframe computer applications (data bases, MIS, etc.).....	2.86	8
Marketing research.....	2.86	7
Accreditation and self study.....	2.78	9
Class size and teaching load analysis.....	2.75	8
State budgeting practices.....	2.75	8
Financial planning models (TRADES, etc.).....	2.71	8
Professional associations (AIR, SCUP, etc.).....	2.67	9
Information retrieval systems (ERIC, CIJE, etc.).....	2.67	10
Project planning techniques (PERT, CPM, etc.).....	2.60	6
Research methods (Q sort, survey research, etc.).....	2.57	8
Financial statement analysis.....	2.50	6
Experimental design and sampling theory.....	2.50	5
Facility costing.....	2.40	5
Use of graphics in presentations.....	2.40	5
Operations research (simulations, linear programming, etc.).....	2.33	7
Information theory/economics of information.....	2.33	7
Library sources and research procedures.....	2.33	10
Statistical Concepts (correlation, regression, etc.).....	2.25	5
Facilities planning.....	2.00	5

NOTES: 5.00=heavy emphasis, 2.00=little emphasis in IR core course.
Frequency = number of core courses which discuss this topic

in institutional research core courses tends to confirm these results, especially the emphasis on planning as a major component of institutional research courses (Viehlund, 1986).

An Analysis of the Institutional Research Curriculum

As noted in the introduction, a secondary purpose of this study was an analysis of the theoretical/practitioner orientation of the institutional research core course. This analysis uses the emphasis score discussed in the previous section and an theoretical/practitioner orientation score established by a review panel. Specifically, a review panel composed of former institutional research faculty members was convened to establish a theoretical/practitioner orientation score for each of the 47 course topics. Each panel member was asked to rank each topic according to the following scale:

How theoretical- or practitioner- oriented are each of these topics:

1: 100% theoretical	4: 75% practitioner, 25% theory
2: 75% theory, 25% practitioner	5: 100% practitioner
3: 50/50 theory/practitioner	

After a first round response, the preliminary results were returned to the review panel and each member was given the opportunity to adjust his response. The orientation score for each topic is shown in Table 5, with courses ranked from the most theoretical (i.e., score of 1) to the most practical (i.e., score of 5).

To assess the degree of association between course emphasis and theoretical/practitioner orientation, the Spearman rank-order correlation coefficient was used. First, ranks were assigned to the course topics for both the emphasis and orientation scores. For example, for the emphasis score, strategic planning received a rank of 1, definition of institutional research issues was ranked 2, and facilities planning received the lowest rank of 47. Because tied ranks were present, the test included a correction term for ties (Meddis, 1984).

Table 5
Orientation Score of Institutional Research Course Topics

<u>Institutional Research Course Topic</u>	<u>Orientation Score</u>
Theories of institutional change.....	1.00
Information theory/economics of information.....	1.00
Catastrophe theory.....	1.00
Futures analysis and research.....	2.00
State master planning.....	2.00
Experimental design and sampling theory.....	2.00
Political aspects of institutional research.....	2.00
Planning model concepts.....	2.33
Definition of and issues in institutional research.....	2.33
Enrollment projections (econometric, cohort survival, etc.).....	2.33
Decision support systems.....	2.33
Statistical Concepts (correlation, regression, etc.).....	2.67
Impact of college.....	2.67
Placement of institutional research in organizational structure.....	2.67
Strategic planning.....	3.00
Use of information in decision-making.....	3.00
Environmental scanning and analysis.....	3.00
Facility costing.....	3.00
Research methods (Q sort, survey research, etc.).....	3.00
Outcomes measurement.....	3.00
Retention studies.....	3.00
Academic program review and evaluation.....	3.00
Faculty activity analysis.....	3.00
Marketing research.....	3.00
Collective bargaining info requirements.....	3.33
Financial planning models (TRADES, etc.).....	3.33
Operations research (simulations, linear programming, etc.).....	3.33
Enrollment management.....	3.33
Facilities planning.....	3.33
State budgeting practices.....	3.67
Library sources and research procedures.....	3.67
Accreditation and self study.....	3.67
Institutional cost studies.....	4.00
Financial statement analysis.....	4.00
Facility utilization studies.....	4.00
Information retrieval systems (ERIC, CIJE, etc.).....	4.33
Peer institution selection and data exchange.....	4.33
How to make an institutional enrollment projection.....	4.33
Project planning techniques (PERT, CPM, etc.).....	4.33
Class size and teaching load analysis.....	4.67
Microcomputer applications (spreadsheets, networking, etc.).....	4.67
Table preparation (titles, organization, etc.).....	4.67
Professional associations (AIR, SCUP, etc.).....	5.00
Use of graphics in presentations.....	5.00
External reporting (preparing HEGIS, NSF, etc. surveys).....	5.00
Preparation of a factbook.....	5.00
Mainframe computer applications (data bases, MIS, etc.).....	5.00

NOTE: 1.00=theoretical, 5.00=practitioner orientation of course topic

Spearman's rank-order correlation test was applied to the mean score for all courses and to each of the ten courses for which data were available. The null hypothesis in each case was that there is no association between topics emphasized in a course and the theoretical orientation of those topics. Rejection of the null hypothesis would imply that a course has a theoretical orientation. The results are shown in Table 6 without institutional identification and are ranked according to the size of the correlation coefficient. N is the number of paired scores used (a score of 1 or no emphasis was not included so N will differ depending on the number of 1's listed for the course). The Spearman coefficient is represented by r_s , and t is the calculated t statistic (Summers and Peters, 1973).

Table 6 shows that in eight of the ten institutional research courses there was a positive correlation between the topics emphasized in the course and the theoretical orientation of those topics. However, in only three of the programs was the correlation coefficient significant. The coefficient for the

Table 6
Correlation of Institutional Research Core Course Emphasis
With a Theoretical Orientation

<u>Institution</u>	<u>N</u>	<u>r_s</u>	<u>t</u>
A	30	0.451	2.674**
B	41	0.450	3.147**
C	44	0.398	2.812**
D	29	0.277	1.498
E	28	0.211	1.101
F	45	0.174	1.159
G	21	0.082	0.359
H	40	0.038	0.234
I	35	-0.199	1.166
J	26	-0.254	1.286
Mean	47	0.287	2.010*

Note: **=.01 level of significance
*=.05 level of significance

mean of all courses was +0.287 and was significant at the .05 level of significance indicating that, overall, the ten institutional research core courses included in this analysis emphasize topics which have a theoretical orientation.

These results can be used to assess the nature of the institutional research curriculum in different higher education programs. For example, some programs offer both an institutional research core course and area of concentration. These programs would be expected to place more emphasis on theoretical aspects of institutional research in the core course because students would be expected to develop dissertation topics from theory presented in this course. On the other hand, in higher education departments which offer an institutional research core course, but no corresponding area of concentration, it is reasonable to believe that the institutional research core course would tend to be more practitioner-oriented. Institutions B, C, D, and F offer both an institutional research core course and area of concentration. Thus four of the top six programs with a strong core course emphasis on theoretical aspects of institutional research offer the course as part of an institutional research area of concentration. This supports the proposition that higher education programs with an institutional research area of concentration tend to offer a core course that is more theoretical than programs which do not.

Although this analysis of the curriculum provides some valuable insight into the nature of the institutional research core course, the results shown in Table 6 should be qualified for several reasons:

- only ten of the seventeen core courses are represented here;
- these results are generally from courses taught in Spring or Fall 1995 and

may not reflect changes in course emphasis since that time;
--most troublesome, the existence of many tied ranks reduces our confidence in the results, even though a correction factor was used.

In summary, we believe the reader who is interested in the content of the institutional research core course will find more value in the descriptive profile of the course, rather than this correlation analysis.

Conclusion

This study has provided a descriptive profile of the institutional research curriculum in nineteen higher education programs, eight with areas of concentration in institutional research and seventeen with institutional research core courses. Of particular value to institutional researchers and prospective graduate students are Tables 1 and 2 which list these programs. Higher education faculty and those interested in institutional research professional development should be especially interested in the detailed description of the core course and, secondarily, the theoretical/practitioner orientation analysis presented in the previous section.

As was noted in the literature review, some authors have viewed favorably the trend of increased academic preparation for institutional research via higher education programs (e.g., Doi, 1979; Fincher, 1985). Others have viewed this trend with considerable concern and dismay (e.g., Dressel, 1979). We would suggest that effective academic preparation for institutional research may occur in any number of disciplines, including higher education. Institutional researchers seeking advanced degrees may elect to enter higher education programs. If so, they should recognize the limitations of the higher education curriculum for institutional research preparation and they should seek course work outside the higher education curriculum. Those who pursue other degree

programs will probably want to enroll in higher education courses which would give them an understanding of the history, organization, and administration of the higher education institutions in which they serve. Such a broad-based approach seems to offer the best academic preparation for institutional research.

References

- Brackett, G. B. (1983/1984). Education preparation opportunities for institutional research practitioners (Doctoral dissertation, Southern Illinois University, 1983). *Dissertation Abstracts International*, 45, 696A.
- Crosson, P. H., & Nelson, G. M. (1984). *A profile of higher education doctoral programs*. Paper presented at the annual meeting of the Association for the Study of Higher Education, Chicago. (ERIC Document Reproduction Service No. ED 245 604)
- Doi, J. I. (1979). The beginnings of a profession: A retrospective view. In R. Cope (Ed.), *Professional development for institutional research (New directions for institutional research)*, 6 (3), (pp. 33-41). San Francisco: Jossey-Bass.
- Dressel, P. L. (1979). Institutional researchers: Created or educated? In R. Cope (Ed.), *Professional development for institutional research (New directions for institutional research)*, 6 (3), (pp. 43-48). San Francisco: Jossey-Bass.
- Dressel, P. L. & Mayhew, L. B. (1974). *Higher education as a field of study*. San Francisco: Jossey-Bass.
- Fincher, C. (1985). For Better or Worse, *Research in higher education*, 23, pp. 219-223.
- Fletcher, G. (1980, Fall). Institutions respond to questions regarding IR tracks and course work. *AIR Newsletter*, pp. 4-5. (Available from the Association for Institutional Research, Tallahassee, Florida)
- Fletcher, G. (1980-81, Winter). Five universities added to course work list. *AIR Newsletter*, p. 6. (Available from the Association for Institutional Research, Tallahassee, Florida)
- Johnson, F. C. (1979). Curriculum requirements for training institutional researchers. In R. Cope (Ed.), *Professional development for institutional research (New directions for institutional research)*, 6 (3), (pp. 49-58). San Francisco: Jossey-Bass.
- Johnson, M. D. (1982, Spring). Career development in institutional research. *AIR Professional File*, 12. (Available from Association for Institutional Research, Tallahassee, Florida).
- Meddis, R. (1984). *Statistics using ranks: A unified approach*. New York: Basil Blackwell.
- Peterson, M. W., & Corcoran, M. (1985). Proliferation or professional integration: Transition or transformation. In M. W. Peterson, & M. Corcoran (Eds.), *Institutional research in transition (New directions for institutional research)*, 11 (2), (pp. 99-112) San Francisco: Jossey-Bass.

- Saupe, J. L., & Montgomery J. R. (1970). *The nature and role of institutional research...memo to a college or university*. (Available from Association for Institutional Research, Tallahassee, Florida).
- Shorr, M., & Hoogstra, L. (1984). *Directory of Higher Education Programs and Faculty*. Washington, D.C.: Association for the Study of Higher Education.
- Stecklein, J. E. (1970). Institutional research. In A.S. Knowles (Ed.), *Handbook of college and university administration: General* (pp. 4-123-4-135). New York: McGraw-Hill.
- Suslow, S. (1972). *A declaration on institutional research*. Tallahassee, Florida: Association for Institutional Research.
- Summers, G. W., & Peters, W. S. (1973). *Basic statistics in business and economics*. Belmont, California: Wadsworth Publishing.
- Tetlow, W. L. (1979). From history observed, one may prophesy. In R. Cope (Ed.), *Professional development for institutional research (New directions for institutional research)*, 6 (3), (pp. 1-13). San Francisco: Jossey-Bass.
- Viehland, D. W. (1986). *Review of institutional research and planning syllabi*. Washington, D.C.: Association for the Study of Higher Education. (ERIC Document Reproduction Service No. ED 272 126)