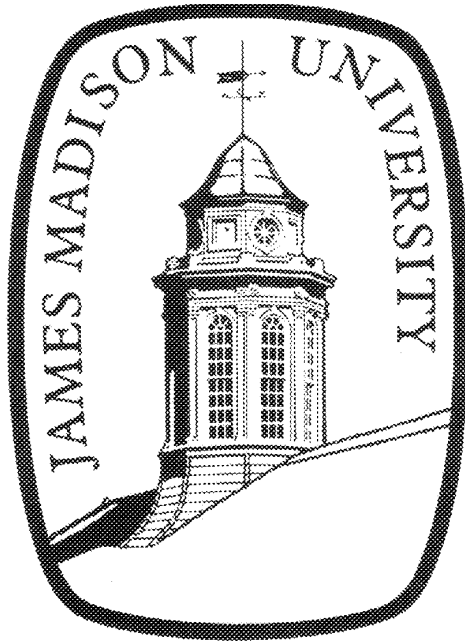


JAMES MADISON UNIVERSITY
SELF-EVALUATION REPORT OF THE
OFFICE OF INSTITUTIONAL RESEARCH



PROVIDED TO THE
INSTITUTIONAL RESEARCH
EVALUATION TEAM

NOVEMBER, 1993

EVALUATION REPORT OF INSTITUTIONAL RESEARCH

Fall 1993

INTRODUCTION

The SACS Visiting Team in Spring 1992 recommended that JMU's Institutional Research Office be evaluated on a regular and systematic basis. The purpose of this report is for the staff of the Office of Institutional Research (OIR) to share its thoughts about the current functioning of the office and to suggest recommendations for improvement. This report is part of the evaluation study being conducted by a team of JMU staff headed by Dr. Al Menard, Associate Vice President for Student Affairs.

The JMU Office of Institutional Research is part of the Resource Planning and Policy Studies (RPPS) area in the Division of Administration and Finance. Resource Planning and Policy Studies contains the Office of Institutional Research, the Budget Office, the Office of Financial Planning, and the Office of Facilities Planning. The institutional research function at JMU has been performed by a separate office since Dr. William P. Jackameit was hired in 1973 as its first director. He directed the institutional research function until the current director, Dr. Frank J. Doherty, was promoted to director in 1992. Dr. Jackameit continues to supervise the Office of Institutional Research in his position of Assistant Vice President for Resource Planning and Policy Studies.

The Office of Institutional Research performs many functions (See Appendix 1) for the JMU community, including, but not limited to, the reporting of enrollments to the state and federal governments, coordinating the collection of various types of data for various internal and external constituencies, maintaining the University's facilities inventory, studying various policy issues, publishing periodic reports and the Statistical Summary, teaching (the director only) at least one course per year, and serving in professional groups.

METHODOLOGY

This report is a summary of the thoughts of the staff of the Office of Institutional Research about the current functioning of the office. It is intended to give the reader some of the staff's thoughts about the strengths and weaknesses of the office and how it can be improved. This report addresses three important interrelated areas: resources; provision of services; and accomplishment

of objectives. First, a program must have sufficient resources to accomplish its task. Second, the services of the program must be provided in an organized and efficient manner. Finally, the program must be responsible for attaining its stated objectives. The primary questions to be addressed in this report are given below. These questions will be repeated in the following sections, and will be followed with the staff's thoughts about the area.

Resources

- o Does the office have sufficient staff, operating budget, and computer resources to accomplish its mission?*
- o Does the office have sufficient support from staff of the Office of Information Technology (OIT) to gain information needed to perform its functions?*
- o Does the office have sufficient support (commitment, knowledge of functions, etc.) within the Division of Administration and Finance and other divisions to accomplish its tasks?*

Provision of Services

- o How well do OIR staff work with other offices? In other words, do OIR staff establish effective working relationships with other University offices?*
- o How efficiently is information gained from other offices?*
- o How might additional efficiencies be gained?*
- o Are there any functions that should be added, deleted, or modified? In other words, is the JMU institutional research office performing the functions it ought to perform?*
- o Is the information gained the most useful and accurate for the project for which it is intended?*

Outcomes

- o Does the office accomplish its annual objectives?*
- o Are the reports sent to SCHEV accurate and timely?*
- o Is information provided to the departments accurate and timely?*
- o Does OIR provide useful information to its many audiences?*
 - How useful are the following: Statistical Summary, Research Notes, Master Plan document, Faculty Planning Information Forms?*
 - Is the information provided to senior management accurate, timely, and useful?*

EVALUATION

Resources

- o Does the office have sufficient staff, operating budget, and computer resources to accomplish its mission?*

The Office of Institutional Research contains two full-time staff, a shared (about 75 percent) program support technician, and a part-time (15 hours per week) graduate assistant. The director

has a doctoral degree in research and the evaluation of educational programs. The other full-time position, a statistical analyst, has a bachelor's degree. The program support technician has a high school diploma. The graduate assistant has a bachelors degree.

The office shares its budget with the other offices in RPPS, with the exception of the Office of Facilities Planning. For the most part, the office has received sufficient funds to perform its operations. In particular, the support for computer technology has been excellent.

Each person in OIR has a microcomputer. The director recently obtained a Hewlett Packard 486 66MH microcomputer. The statistical analyst and position support technician both have microcomputers with a 386 processor running at 25MH. The graduate assistant has a microcomputer with a 286 processor. The three full-time positions are connected to the JMU campus network which gives high speed access to a variety of resource both on-campus and off-campus through Telnet and Internet.

At the request of the evaluation team, JMU's in-state and out-of-state peer institutions were surveyed to determine the functions performed as well as the staffing patterns. Below is a summary of the results of this survey.

Thirty-eight peer institutions were surveyed. Twenty-four were from JMU's SCHEV faculty salary peer group and the other institutions were in-state four-year public institutions (See Appendix 2). Thirty (79 percent) responded. The peers were asked to respond to two basic areas. First, they were to indicate the functions they performed that are similar to the functions performed by OIR. Second, they were asked to list the staff in their office, the amount of time (full-time or part-time) they worked, and their highest degree. The results are summarized below.

Table 1**Institutional Research Office Functions Performed**

| Function Performed | Number Performing Function | Virginia 4-Year Percent Performing Function | Total Percent Performing Function |
|--|----------------------------|---|-----------------------------------|
| Report enrollments | 28 | 100.0 | 93.0 |
| Develop enrollment projections | 27 | 91.7 | 90.0 |
| Complete IPEDS reports | 26 | 100.0 | 86.7 |
| Maintain facilities inventory | 14 | 66.7 | 46.7 |
| Project space need | 9 | 75.0 | 30.0 |
| Respond to questionnaires | 30 | 100.0 | 100.0 |
| Complete faculty salary surveys | 26 | 91.7 | 86.7 |
| Respond to peer requests for information | 30 | 100.0 | 100.0 |
| Develop profiles (SACS, etc.) | 26 | 100.0 | 86.7 |
| Complete annual NCAA report | 22 | 83.3 | 73.3 |
| Assist with affirmative action analyses | 10 | 25.0 | 33.3 |
| Respond to requests for information | 30 | 100.0 | 100.0 |
| Coordinate University Master Plan | 6 | 8.3 | 20.0 |
| Assist with requests for new degrees | 20 | 75.0 | 66.7 |
| Conduct policy analyses | 23 | 75.0 | 76.7 |
| Monitor faculty productivity | 23 | 83.3 | 76.7 |
| Conduct salary equity studies | 21 | 83.3 | 70.0 |
| Publish institutional fact book | 28 | 83.3 | 93.3 |
| Conduct research studies | 23 | 75.0 | 76.7 |
| Teach at least one course per year | 13 | 58.3 | 43.3 |
| Serve on committees | 27 | 91.7 | 90.0 |

Table 1

Institutional Research Office Functions Performed

| Function Performed | Number Performing Function | Virginia 4-Year Percent Performing Function | Total Percent Performing Function |
|------------------------------|----------------------------|---|-----------------------------------|
| Other activities as required | 18 | 66.7 | 60.0 |

The data in Table 1 indicates that the JMU Office of Institutional Research performs the primary functions that are the duties of most institutional research offices. However, there are five functions performed by our office that are performed by less than fifty percent of the IR offices in the peer institutions. These functions were maintaining the facilities inventory, projecting space needs, assisting with affirmative action analyses, coordinating the University Master Plan, and teaching at least one course per year. However, when compared with the Virginia peers, OIR performs only two functions that are performed by less than fifty percent of the peers. None of the institutions performed all the functions performed by our office. However, some IR offices in Virginia are organized differently and perform some tasks which are significantly different from us. The IR offices at Norfolk State and Virginia Military perform the assessment activities. At George Mason, Old Dominion, and William and Mary the IR offices lend technical support to the assessment functions. At George Mason, assessment is in the IR office, but the functions and staffing reported in the survey are for IR only.

The staffing patterns (See Appendix 3) indicated that JMU has one of the leaner IR staffs for the functions performed and the size of the institution. Table 2 compares the staffing patterns of OIR with the other Virginia senior public institutions with institutional research offices. In Table 2 the Virginia institutions are compared according to headcount, FTE staff excluding graduate and student assistants, and years of formal training. The formal training uses the following scale: 4=Doctorate; 3=Master's; 2=Bachelor's; and 1=High School Diploma. The total points for each institution were summed and are shown in Table 2. Two Virginia institutions, Mary Washington College and Clinch Valley College, responded to the survey, but do not have distinct IR offices. The data in Table 2 indicate a wide variation in staffing and training among the Virginia public institutions. For its size, JMU appears to have one of the leaner staffing patterns in Virginia.

Table 2

**Institutional Research Office Staff and Training
(Excludes Graduate and Student Assistants)**

| Institution | Fall 1993 Headcount | FTE Staff | Formal Training Total Degree Points |
|--|---------------------|-----------|--|
| James Madison University | 11,354 | 2.75 | 7 |
| George Mason University* | 20,829 | 4.75 | 12 |
| Longwood College | 3,202 | 1.5 | 4 |
| Norfolk State University* | 8,625 | 3.0 | 11 |
| Old Dominion University | 14,504 | 4.5 | 15 |
| Radford University | 9,430 | 2.0 | 5 |
| University of Virginia* | 18,016 | 4.7 | 19 |
| Virginia Military Institute | 1,265 | 2.0 | 9 |
| Virginia Polytechnic Institute and State University | 23,637 | 8.0 | 21 |
| Virginia State University | 4,195 | 2.75 | 8 |
| College of William and Mary | 7,638 | 2.0 | 6 |

* Activities and staff not related to institutional research excluded from this table.

The conclusion drawn from the comparison of the functions and staffing patterns of our IR office and the peer institutions is that the JMU Office of Institutional Research performs a large number of functions with a relatively lean staff.

o Does the office have sufficient support from staff of the Office of Information Technology to gain information needed to perform its functions?

The Office of Information Technology is responsible for all computer and telecommunication functions at JMU. They maintain both the academic and personnel/financial computer systems from which OIR must gather data.

The JMU IR office obtains data in a variety of ways. There are numerous reports that are printed each year that provide data for the office to share with other departments. Also, many data downloads have been developed to obtain data for many purposes. Until recently, the office did not

have the ability to create its own downloads or write reports from data maintained on the central systems. The director had this ability six years ago when he was with the Virginia Community College System. The office currently has access to selected data on the Student Information System (SIS) using a fourth generation software, Data Express.

It is the opinion of the OIR staff that the staff of OIT have made significant efforts to provide useful data in the downloads. We have been able to greatly extend the analysis capabilities of the office through these downloads in the last six years. It is the opinion of the director that Data Express is somewhat useful. The documentation is poor, and the software is not easy to use. It is better than nothing, but not by a whole lot. When the student and personnel/administrative systems are replaced by a database system such as Oracle, it should be much easier to get access to data and write ad hoc reports. It would be most helpful if the new systems could be accessed by software such as SAS, SPSS, or DBASE.

During the last year all higher education institutions in Virginia have been required to develop and send large data files to SCHEV. These files, one of which has more than 125,000 records, contain information about enrollment, financial aid, new students, graduates of the most recent academic year, and courses taken by all students. This is an entirely new and far more complex system of reporting to SCHEV. Staff in OIT have been very helpful in developing these data files. However, the effort required to develop the files has been much greater than was originally anticipated, thereby causing us to be late in submitting the files to SCHEV. There is also no useful software on the HP or VAX to edit the data on campus or develop reports using the data on the administrative systems. OIT does not appear to have sufficient programming staff to allow it to respond to such requests in reasonably timely manner.

o Does the office have sufficient support (commitment, knowledge of functions, etc.) within the Division of Administration and Finance and other divisions to accomplish its tasks?

The office has been in the Division of Administration and Finance for many years because the functions of the office relate to planning and budget issues such as enrollment projections, facilities inventory, space guidelines, etc. However, the office works closely with offices from the other divisions to collect needed information. For example, the office uses data from the Division of Academic Affairs to develop the student-to-faculty ratios, the Faculty Activity Survey, and many additional reports. The office works with staff within the Division of Student Affairs to collect and

analyze data on new students and financial aid. The office assists Intercollegiate Athletics in preparing the annual NCAA report.

It appears to the OIR staff that significant knowledge and support exists within the other divisions about the functions of the office. We admit that many faculty do not understand well what we do, but we feel that we are able to provide useful data to faculty when asked. The office has little trouble in gaining information from the departments when it is needed. Recently staff from each academic department attended orientation meetings to obtain needed information about several activities that are being conducted this fall.

Provision of Services

The JMU IR office provides a variety of services to the JMU community. While some of the services have not been formally evaluated, we did evaluate the usefulness of the *Statistical Summary* two years ago. The following summary, therefore, includes both factual data and our general impressions of how well we provide services.

o How well do OIR staff work with other offices? In other words, do OIR staff establish effective working relationships with other University offices?

Over the years the OIR staff have worked very hard to establish and maintain good working relationships with the many offices on campus. Since we gather a wide variety of data from many sources, it is essential that we maintain good working relationships with these sources. While we do not document the number of requests for information or questions regarding data directed to OIR daily, it exceeds an average of 15.

o How efficiently is information gained from other offices?

We feel we have made great strides to obtain data efficiently from other offices. We employ computer technology wherever possible. For example, in the last couple of years we automated the Faculty Planning Information Form which was prepared each semester by the departments. Many staff told us that this new way of collecting data reduced the time they spend on this activity. Where possible, we encourage departments to share data electronically. We communicate with the academic department heads through electronic mail frequently. We use every means possible to communicate with the departments and gain data as efficiently as possible. We are now beginning to share data electronically with the Vice President for Academic Affairs and the deans.

The evaluation of the JMU *Statistical Summary* indicated that it is used by the vast majority of those who received it. At least 95 percent of the respondents used it occasionally, with 39 percent using it monthly. Each section was considered useful with the most useful being the section on students. The accuracy of the document was considered "Excellent" or "Good" by the vast majority of the respondents.

o How might additional efficiencies be gained?

The primary means for gaining efficiencies in this office during the past six years is through computer technology. Since the director received his new computer two months ago, he has been able to generate reports much faster. In fact, if he had not received this computer, it would have been very difficult to edit the SCHEV data files because of their size and complexity. The JMU network has enabled us to gain significant efficiencies because we can send and receive data over Telnet and Internet much faster than we could before. This is very useful when one is sending extremely large data files to SCHEV.

It is difficult to determine from our perspective how additional efficiencies might be gained other than through technology. We are already handling about three times the amount of work we did five years ago, and the only way we have been able to handle the increased workload is through technology.

o Are there any functions that should be added, deleted, or modified? In other words, is the JMU institutional research office performing the functions it ought to perform?

This is also a difficult question to answer from our perspective because we do not have an unbiased perspective. However, we will share our thoughts about the functions we perform. It is the opinion of the director, and was substantiated by the survey, that we perform the primary functions of most institutional research offices with a relatively lean staff. The major concern of the director relates to how we can continue to provide timely services as the University grows in the next ten years. The University is projected to grow more than 25 percent in the next ten years. Based on the survey of peer institutions, we already perform many functions with a lean staff. Because of the state's budget difficulties, it will be difficult to add staff to the office for a while. However, it may be possible to shift or streamline one or more functions.

A function which could be streamlined is the facilities inventory. While it might be possible to shift this function to another area, it appears that in Virginia this function is primarily performed by the IR offices. This is understandable because of the close connection of the

inventory, facilities utilization, and enrollment projections. However, this function currently requires about 25 percent of the time of the statistical analyst, and will require as much as 40 percent as the University's facilities expand by 25 percent in the next ten years. The current facilities inventory system is very antiquated for an institution the size of JMU. Basically, we maintain an inventory of all space (more than 7,000 records) with the minimum data elements required by SCHEV. Until this fall, it was maintained on the administrative computer system. Due to many changes to the inventory manual and the remote likelihood of getting assistance from OIT (remember, they were developing our SCHEV data files), we took the system off the mainframe and put it on a microcomputer. It worked very well this fall, but it is only a temporary solution, and it should eventually be put on a more central system. It is the opinion of the director that the University's facilities inventory system should be upgraded significantly to provide the types of information that are used by similar institutions.

There is another concern that needs to be expressed. This is probably the most serious concern at this point. The manner in which the major functions of the office are performed have changed dramatically in the last six years. We use computer technology far more than we did several years ago. However, the majority of these changes have been primarily made by the director. Currently there is no backup for many of these critical functions. For example, the Space Planning Guides are developed on a complex spreadsheet on the director's computer. The edits for the SCHEV data files are completed on the director's PC and sent to SCHEV via Internet. The enrollment projections for the University and CISAT are also on complex spreadsheets. The Faculty Planning Information Forms are now downloaded to the director's PC and analyzed in a database. The Faculty Activity Survey is analyzed on a database. All the faculty data used to generate reports to the state and federal government and for outside organizations such as AAUP are on several large databases on the director's PC. If the director was to leave or be out for a prolonged period of time due to illness or other reasons, many important functions could not be easily performed.

Because of the critical nature of these functions and the lack of sufficient backup, it is the opinion of the director that this is the most serious problem facing OIR.

Outcomes

o Does the office accomplish its annual objectives?

The director each year reports to Dr. Jackameit and the Senior Vice President the accomplishments of the office relative to its stated goals (See Appendix 4). Basically, the office has been able to accomplish its annual objectives. Occasionally we have been delayed by difficulty in obtaining needed data from other offices or outside agencies. At times we have had to delay some efforts due to the amount of time required by other efforts such as the SCHEV database system.

o Are the reports sent to SCHEV accurate and timely?

The reports sent to SCHEV are generally on time. However, we have had many problems this fall with the SCHEV data files due to the complexity of the task. We should have all files to SCHEV by the end of the semester. The data we send to SCHEV is usually accurate, passing all their edits. The statistical analyst and program support technician are particularly good at finding errors.

o Is information provided to the departments accurate and timely?

We feel that the information provided to the departments is usually timely and accurate. Again, we are somewhat biased in this regard, and information from other sources might be most useful in determining the answer to this questions. We make every effort possible to determine the needs of the departments and provide the data requested.

o Does OIR provide useful information to its many audiences?

- *How useful are the following: Statistical Summary, Research Notes, Master Plan document, Faculty Planning Information Forms?*
- *Is the information provided to senior management accurate, timely, and useful?*

Again, this is a difficult question for us to answer. We know that the departments eagerly await the publication of the Statistical Summary and use the data frequently during the year. The Faculty Planning Information Forms are provided to the departments, deans, and senior management. They are often used for planning purposes. If there is any indication of the need for institutional research, it comes in the form of additional responsibilities. We have been asked in the past several years to provide data that were never available. Because we have been able to provide useful data from a variety of sources, we have been asked to provide even more useful data to management.

SUMMARY

The staff of the JMU Office of Institutional Research have attempted to summarize its efforts to perform the tasks required for this office. Overall, we feel we provide useful and timely information to the JMU community. We have greatly expanded the capabilities of this office in the last five years primarily through the use of advanced computer technology. We have tripled our output through the judicious use of computer technology. Fortunately, management has been very willing to provide the needed technology.

There are some concerns which we would like to have the committee and management discuss. These involve the lack of adequate backup for critical computer systems developed by the director and the inventory system of the University. We feel that these should be discussed so that we might continue to provide adequate and timely assistance for the University.

We appreciate the opportunity to express our perceptions of the Office of Institutional Research. We look forward to continuing dialogue about how we might enhance the performance of the office.

APPENDIX 1

RESPONSIBILITIES OF INSTITUTIONAL RESEARCH AT JMU

RESPONSIBILITIES OF INSTITUTIONAL RESEARCH AT JMU

FUNCTIONS:

1. Reporting
 - A. SCHEV Reporting Calendar
 1. Enrollment (SCHEV's new reporting system)
 2. Enrollment projections
 3. IPEDS (federal reports)
 4. Facilities Inventory and Utilization
 - B. Questionnaires (50+ annually)
 - C. Surveys
 1. AAUP salary survey
 2. CUPA salary surveys
 3. Miscellaneous peer requests
 4. SACS Institutional Profile
 5. NCAA
 - D. Affirmative Action
 - E. Internal and external requests for information
2. Coordinating
 - A. Master Plan
 - B. SACS requests
 - C. CISAT enrollment and faculty projections
 - D. Assist departments with new degree proposals.
3. Policy Analysis
 - A. As requested by the President and vice presidents
 - B. Miscellaneous
 1. Average number of credit hours to graduate
 2. Number of classes by department by time of day
 - C. Salary Equity
4. Data Analysis
 - A. Faculty Planning Information Forms
 - B. Faculty Activity Survey
 - C. Faculty salary data
 - D. Etc.
5. Publications
 - A. Statistical Summary
 - B. Research Notes
6. Instructional
 - A. Taught EDUC 360 (Introduction to American Education) for 6 years.
 - B. Will teach EDUC 630 (Research Methods in Education) in Spring 1994.
7. Professional
 - A. Serve on executive committee of the Virginia Association for Management, Analysis, and Planning (VAMAP).
 - B. Serve as evaluator for Sections II (Planning) and III (Institutional Effectiveness) for SACS.

APPENDIX 2

INSTITUTIONAL RESEARCH OFFICE ACTIVITIES

APPENDIX 3

INSTITUTIONAL RESEARCH EVALUATION, POSITIONS FILLED

APPENDIX 4

INSTITUTIONAL RESEARCH GOALS AND ACCOMPLISHMENTS