ED 373 681 HE 027 667

AUTHOR Barnes, Michael W.; And Others

TITLE Expenditure Data and Their Accuracy for Peer

Institutional Comparisons.

PUB DATE May 93 NOTE 29p.

PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS *Budgeting; *Comparative Analysis; Data Collection;

Diversity (Institutional); *Expenditures; Financial

Audits; *Financial Problems; Higher Education;

Operating Expenses; *Private Colleges; Recordkeeping;

*School Accounting; School Surveys

IDENTIFIERS *Integrated Postsecondary Education Data System

ABSTRACT ·

This study sought to determine if private colleges and universities are accurately reporting budgetary data to the Integrated Postsecondary Educational Data System (IPEDS) of the U.S. Department of Education following guidelines issued by the American Institute of Certified Public Accountants (AICPA) and the National Association of College and University Business Officers (NACUBO). A total of 38 peer institutions were asked to submit their current funds expenditures schedules or other financial statements listing department and activity expenditures. Eleven institutions responded, and only four returned complete schedules with dollar figures (five returned incomplete data). An analysis of data from the nine institutions that provided any information found discrepancies in reporting computing, academic administration, retiree and staff benefits, registration, and campus security and safety. It did not find problems with the reporting of college work-study, alumni and public relations activities, and admissions. An appendix contains NACUBO guidelines for reporting university financial expenditures. Contains 13 references. (MDM)



Reproductions supplied by EDRS are the best that can be made

EXPENDITURE DATA AND THEIR ACCURACY FOR PEER INSTITUTIONAL COMPARISONS

Michael W. Barnes,

Director of Institutional Research, The University of Tulsa

John A. Osborne,

Associate Vice President and Controller, The University of Tulsa Ron Gordon,

Director of Institutional Research, Tulsa Junior College
INTRODUCTION

At The University of Tulsa, decision-makers request comparisons between the University and peer, aspirant, and competing institutions. They are especially interested in Educational and General (E&G) Expenditure Demand Ratios, wanting to know if the University is spending the about the same, more, or less than other institutions on Instruction, Research, Public Service, Academic Support, Student Services, Institutional Support, Operation and Maintenance of Plant, and Scholarships and Fellowships. The expenditure data used to compute these ratios are summaries of expenditures (e.g., instructional expenditures rather than expenditures by instructional departments) taken from the IPEDS (Integrated Postsecondary Educational Data System) database.

U.S. DEPARTMENT OF EDUCATION
Office of I ducational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (FRIC)

- CENTER (ERIC)

 This document has been reproduced as received from the person or organization originating it
- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Michael W. Barnes

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

These summary figures are assumed to have been computed by the other institutions within AICPA-NACUBO (American Institute of Certified Public Accountants and National Association of College and University Business Officers) established guidelines. For example, all instructional activities are included in the instructional expenditure amount and all other activities excluded; and, all institutional support activities are included in the institutional support expenditure amount and others excluded.

On a number of occasions, administrators and others have inquired about the accuracy of the data used—not whether they are right or wrong, but are the data consistent with University reporting guidelines. In essence, are other institutions reporting in accordance with AICPA—NACUBO guidelines? Thus, this study was conducted to determine if the assumption that every institution follows the established guidelines is correct.

Secondly, if other institutions are not reporting in a consistent manner with the guidelines, this study was to determine how much deviation from the guidelines existed.

REVIEW OF LITERATURE

Given the accountability expected of financial data, people often expect financial data to be gathered and summarized in a



manner consistent with a set of well defined quidelines. However. many studies concerning institutional comparisons admonish researchers about the accuracy of comparative data; in addition. these studies suggest numerous reasons for anomalous data. and Brinkman (1992) stated that "the fundamental data concerns of validity, accuracy, and reliability are always present within a comparative context" because (1) "comparative data are often derived from multiple sources, " (2) "the rules and definitions for recording such data may be inconsistent across sources, " and (3) "the close familiarity that can be so helpful in spotting data errors is usually missing because one typically must depend on secondary sources." Therefore, "the best approach is to proceed with caution, assuming as little as possible about the quality of the data." Also, Whiteley and Stage (1987) stated that "[i]ncomparability of data can exist in several dimensions. Different histories, organizations, missions, reporting systems can all produce unmatching data" (p.62).

Though the reporting system for expenditure data appears to be rigid, it is not. Using 80-81 HEGIS expenditure data, Lane, Lawerence, and Mertins (1987) stated that:

[h]igher education institutions report annually on expenditures ... following a standard reporting format, which should make interinstitutional comparisons more



straight forward. Actual reporting practices and local decisions concerning classification of expenditures have been and remain problematic (p.93). [That is,] "in the actual reporting an expense might be considered part of an instructional budget for one institution and be listed under a student service or administrative budget category for another. It often is very difficult for the outside observer to recognize the difference. (p.94)

In a series of three articles in <u>Business Officer</u> (published by NACUBO—the National Association of College and University Business Officers), Minter and Conger (1979, March; 1979, April; 1979, May) reported results of a study comparing institutional reports of HEGIS financial data with AICPA—NACUBO (American Institute of Certified Public Accountants and National Association of College and University Business Officers) standards and supporting schedules of 125 independent institutions. They found that 10% followed the standards, 50% reported the new categories while supplying data gathered under the old definitions; and 40% did not follow standards.

Moreover, Minter and Conger (1979) found common errors in the institutional coding of department and activities in the expenditure categories: academic support activities (e.g., academic administration) and noninstructional sponsored programs in Instruction; instructional and student financial aid expenditures in Research; alumni and public relation activities in



Public Service; academic computing, admissions, registration and student records, all staff benefits, all college work-study payments, and plant debt expenditures in Institutional Support; campus security in Plant Operation and Maintenance; and, all college work-study expenditures in Scholarships

To illustrate the differences between HEGIS data and refined audited data (that is, HEGIS reported expenditures compared to audit reports with supporting schedules which were recoded to fit the guidelines), Conger (1979) provided financial data from a "well-managed" institution. The expenditure data are exhibited below:

Table 1
about here

Obviously, the institution did not report in accordance with the guidelines. Instruction, Institutional Support, and Scholarships are overreported; whereas, Academic Support is underreported. Given the ratios, Student Services and Plant Operation and Maintenance are the closest to that which was reported to HEGIS. In addition, 8% of the expenditures reported as Educational and General (E&G) should have been reported elsewhere.



The question arises as to whether or not this error is acceptable for interinstitutional comparisons and for the management of an institution. Minter and Conger (1979, March) "believe that analysis of the financial condition of ... higher education ... as well as of individual institutions requires a higher degree of accuracy at the institutional level than can now be assured by the HEGIS financial data reports" (p. 20).

These studies were conducted on 1970's data; could institutions have improved since then? After comparing sequential years of financial data, Minter and Conger (1979, March) concluded that "reporting to HEGIS is improving and will no doubt improve over the years to the point of achieving a reporting error rate that is acceptable" (p. 20). After studying the differences between HEGIS and Minter Associate's refined data, Patrick and Collier (1979) concluded that "HEGIS data, at least for private institutions, are becoming increasingly accurate over time...." (p. 80).

After reviewing the literature, two questions need to be addressed: (1) in the 1990's, are institutions reporting in accordance with AICPA-NACUBO guidelines; and (2) if not, how much deviation from the guidelines exists?

DATA SOURCE AND METHODOLOGY



In describing methodology for a financial analysis of independent institutions, Minter (1979) reported that audited financial statements and supporting schedules were collected. The statements provided the summary expenditure figures; whereas, the schedules list the expenditure categories (e.g., instruction, research, public service) and the departments/units and activities included in the categories.

With these data, the researchers recoded the schedule data in accordance with AICPA and NACUBO standards. Minter stated that "[t]his kind of data gathering effort is preferable ... [because] many institutions are not yet reporting HEGIS data according to NACUBO guidelines" (p. 63).

In this study, the writers attempted to duplicate Minter's methodology. The writers sent requests to the controllers/
comptrollers at private, independent institutions asking for their institutions' Current Funds Expenditures schedules from their audit reports or other financial statements listing department and activity expenditures. Because the primary intent of the study was to determine if institutions are reporting consistent with AICPA-NACUBO guideline, the writers asked for dollar amounts, but because of the sensitivity of these data the writers asked for the schedules without dollar figures. Independent institutions guard



salary data and with small departments containing only one person salary data can be easily identified.

After receiving the E&G expenditure schedules, the recoding began. Though most departments and activities were readily identifiable, some were not or were ambiguous (i.e., they seem to fit in two or more E&G categories). In these cases, institutional bulletins (via the microforms collection of college bulletins in the Library) and other publications (which had been collected by the Office of I.R. over the years) were reviewed. When publications did not reveal the type of activity, phone calls were not made to the institution—a deviation from Minter and Conger (1979, March; 1979, April; 1979, May) who made phone calls to the institutions. In this study, when there was doubt about an activity or department, it was not recoded to another category.

For all schedules sent, errors in placement of the departments and activities were determined—e.g., dean's office not placed in Academic Support. When dollar amounts were sent, the schedules are recomputed and the percent of "over or under" reporting was determined for each category; and, the demand ratios for each institution were computed. <u>Institutions Used for Peer Studies</u>

The institutions solicited for this study have been used by the University for numerous comparisons. They represent what the



University has determined to be its peers, competitors, and aspirants. In their article, Teeter and Brinkman (1987, 1992) defined the types of institutions used in the study as the institutions relate to the University:

Competitors ("[I]nstitutions that compete with one another for students or faculty or financial resources. [T]hey may not necessarily be similar in role and scope.");

Aspirants ("[I]nstitutions that are clearly superior to the home institution, the group reflects aspiration more than commonality of mission.");

Peers ("institutions that are similar in role and scope of mission. In this case, 'similar' rather than 'identical'....").

Not included are institutions in the Predetermined-Jurisdictional group:

"[I]nstitutions that are compared simply because they are part of the same political or legal jurisdiction.");
Predetermined-Natural ("[Institutions having] one or more of the following types of relationships: membership in an athletic conference, membership in a regional compact, or location in a region of the country."; Predetermined-Traditional (institutions grouped by history); and Predetermined-Classification-based (institutions grouped by some classification scheme such as the Carnegie Commission Classification, the American Association of University Professors);

Table 2 about here

Guidelines for Recoding Schedules



Using the quidelines in NACUBO's College and University Business Administration (4th edition, Welzenbach, 1982; 5th edition, Greene, 1992), the schedules were reviewed. functional classification pattern of financial data (which is most often used in comparisons among institutions) is well defined in a number of sources but especially by the National Association of College and University Business Officers (NACUBO). From the College and University Business Administration (Welzenbach, 1982; Greene, 1992), Current Funds Expenditures are defined as costs incurred in the near term for operating purposes -- "costs incurred for goods and services used in the conduct of the institution's operations. The functional classification of Educational and General expenditures are those that include costs for Instruction, Research, Public Service, Academic Support, Student Services, Institutional Support, Operation and Maintenance of Plant, and Scholarships and Fellowships, as well as E&G Mandatory and Nonmandatory Transfers. These terms are defined in Appendix A.

RESULTS

The return rate was poor, in that 38 institutions were sent requests and 11 responded. Two of these returned letters stating that the institutions did not share detailed financial data. Five returned schedules without dollar figures. Only four institutions



returned complete schedules with dollar figures.

The nine schedules received were analyzed to determine if activities and departments were misplaced by the institutions. The schedules revealed common errors in reporting. The offices of academic deans were included in Instructional expenditures; often when this occurred, very small academic colleges were not broken down, thus making it impossible from the financial schedule to determine the deans' office costs. Never were presidents and vice presidents for business-finance included outside the Institutional Support category; however, often were provosts and other vice presidents included in the categories they supervise (e.g., academic vice president in Academic Support; student affairs vice president in Student Services). Retiree and staff benefits were not distributed through the departments; when not distributed, these benefits were found grouped in Institutional Support. The majority of the benefits expenditures were distributed; however, some were not distributed and thus placed in Institutional Support. Athletic Scholarships were found in Scholarships and Fellowships. As for intercollegiate athletics, they were found exclusively in Auxiliary Activities, exclusively in Student Services, or, as with one school, nonrevenue sports were found in Student Services and major-revenue sports were in Auxiliary



Activities.

Most often, the Computer Center expenditures were found in Academic Support; that is, computing was not divided into academic and administrative, but charged to academics. Once each, the computer center was also found in Instruction and Institutional Support. Campus Security and Safety was occasionally found in Plant Operation and Maintenance, rather than Institutional Support. Also, Dining and Housing activities were found in Student Services or Institutional Support, rather than Auxiliary Activities. Finally, Registration was once found in Institutional Support, rather than Student Services.

The four complete schedules were analyzed to determine "over or under" reported category expenditure amounts and to compute demand ratios "before and after" the recoding. "Over" reported means that the institution reported more in a category than was there after recoding; "under" reported means that the institution reported less in a category than should have been there. Each category was dealt with separately—for Instruction, all noninstructional activities were removed and place in their respectave categories; then, all instructional activities reported by the institution in other categories were moved to the Instruction category.



As seen in Table 3, Academic Support, Institutional Support, and Public Service were most likely to be under reported—that schools seemed more likely to report "less expenditures" in these areas than were expended. Oppositely, schools were more likely to report more expenditures in the areas of Instruction and Student Services than were expended; likewise, Physical Plant expenditures were more likely to be reported greater than actually was expended (possibly an effort to keep Security/Safety out of Institutional Support, thus keeping that expenditure lower). Most accurately, schools reported expenditures in Research and Scholarships and Fellowships.

Table 3
about here

To compute the demand ratios, the totals for each category were summed before and after the recoding. The institutional reported sum of the categories was divided into each of the category totals, computed before and after the recoding. Table 4 exhibits the ratios "before" and "after" recoding, as well as the difference between the after and before ratios. The three rightmost columns of table 4 displays the differences between the "before" and "after" ratios after the ratios have been



standardized.

Table 4 about here

As for Research, schools reported accurately; only one of the four institutions differed and that difference was quite small—the institution had expended the amount reported plus 3.39% of that amount. Three of the four schools did not differ on Scholarships and Fellowships; however, one institution reported more financial aid than it should have reported. The institution reported that 12.5% of its total Education and General Expenditure went to financial aid when actually 10.8% of E&G went to aid—that is, the institution reported it awarded 13.6% more aid dollars than it awarded.

Major differences seem to exist in Instruction, Academic Support, Student Services, Institutional Support, and Physical Plant. For Instruction, two schools reported that they expended 5.41% and 8.89% more than they actually did; whereas, another school reported 2.00% too few dollars. Academic and Institutional Support categories were under reported; and, in one case each, the schools under reported by more than 50%—that is, these schools spent their reported amount plus at least another 50% of that



amount. Student Services and Physical Plant, like Instruction, were over reported by more schools, than they were accurately or under reported.

DISCUSSION

The primary purpose of this study was to determine the accuracy of expenditure data from institutions used in institutional comparisons. The assumption of many decision makers on a campus has been that financial data are reported in accordance with rigid guidelines. The results of this study support the literature--e.g., Teeter and Brinkman (1992), "the fundamental data concerns of validity, accuracy, and reliability are always present within a comparative context." However, this study does not speculate as to why--e.g., Teeter and Brinkman (1992), because (1) "comparative data are often derived from multiple sources, " (2) "the rules and definitions for recording such data may be inconsistent across sources, " and (3) "the close familiarity that can be so helpful in spotting data errors is usually missing because one typically must depend on secondary sources"; or, Whiteley and Stage (1987), "[i]ncomparability of data can exist in several dimensions. Different histories, organizations, missions, reporting systems can all produce unmatching data" (p.62).



This study did not find that reporting had improved since the late 1970's and the Minter and Conger (1979, March) study—that is, "reporting to HEGIS is improving and will no doubt improve over the years to the point of achieving a reporting error rate that is acceptable" (p. 20)—and the Patrick and Collier (1979) study—that is, "HEGIS data, at least for private institutions, are becoming increasingly accurate over time...." (p. 80).

This study's findings agree with those of Minter and Conger (1979) in a number of areas but also found additional errors in reporting (see Table 5). Both studies found problems in reporting computing, academic administration (e.g., academic deans), retiree and staff benefits, registration, and campus security and safety. This study did not find problems with the reporting of college work-study, alumni and public relation activities, and admissions. This study cited problems in reporting vice presidents outside of Institutional Support, athletic scholarships in Scholarships and Fellowships, intercollegiate athletics in Student Services, and housing and dining activities in Student Services and Institutional Support.

Table 5 about here



Institutions may be under reporting categories not directly related to the services provided students. That is, Academic Support, Institutional Support, and Public Service were most likely to be under reported—that schools seemed more likely to report "less expenditures" in these areas than were expended. Oppositely, schools were more likely to report more expenditures in the areas of Instruction and Student Services than were expended; likewise, Physical Plant expenditures (when campus security and safety was included) were more likely to be reported greater than actually was expended. Most accurately, schools reported expenditures in Research (sponsored research) and Scholarships and Fellowships.

CONCLUSIONS

If all institutions were erroring in the same direction and in the same magnitude, the writers of this study would have less of a problem than they currently have. That is, consistent error across all institutions would equal in essence new guidelines. However, as is seen in this study, institutions error differently (e.g., not all institutions include campus security in the physical plant) and in different magnitudes (see Table 4). Consequently, an additional question arises: "If error in reporting cannot be eliminated, how much error can be acceptable?"



Given a \$100 million budget, a reallocation based on institutional comparisons of 1% could eliminate departments and activities essential to the mission of the institution.

This study found that error is still present and that the improvement predicted in the 1970's has not yet occurred. Thus, how much error should be accepted in institutional comparisons? Minter and Conger (1979, March) stated that "analysis of the financial condition of ... higher education ... as well as of individual institutions requires a higher degree of accuracy...."

This study is not prepared to speculate on how much error an institution can tolerate. However, institutions of higher education probably will never report expenditure data in a totally accurate manner, regardless of the rigidity of the guidelines. The question remains, how much error can an institution accept when it is comparing itself to an institution which is not reporting accurately. The conclusion here is to discourage decision makers from using institutional comparisons as the sole influence in reallocation decisions. If comparisons are important to such decisions, admonishments should be attached to the presentations.



REFERENCES

- Conger, C.A. (1979). Building an accurate financial data base.

 In Frances, C., & Coldren, S.L. (eds.), <u>Assessing financial</u>

 <u>health</u>. New Directions for Higher Education, no. 26. San

 Francisco, CA: Jossey-Bass.
- Greene, D.M. (Ed.) (1992). <u>College and university business</u>

 <u>administration</u>. 5th ed. Washington, DC: National Association
 of College and University Business Officers.
- Lane, F.S., Lawerence, J.S., & Mertins, H., Jr. (1987). University financial analysis using interinstitutional data. In Brinkman, P.T. (ed.), Conducting interinstitutional comparisons. New Directions for Institutional Research, no. 53. San Francisco, CA: Jossey-Bass.
- Minter, J. (1979). An approach to comparative analysis of the financial condition of independent colleges and universities. In Frances, C., & Coldren, S.L. (eds.), <u>Assessing financial</u> <u>health</u>. New Directions for Eigher Education, no. 26. San Francisco, CA: Jossey-Bass.
- Minter, W.J., & Conger, C.A. (1979, March). Comparing institutional reports of HEGIS financial data with AICPA-NACUBO standards.

 Business Officer, pp. 18-20.



- Minter, W.J., & Conger, C.A. (1979, April). Comparing institutional reports of HEGIS financial data with AICPA-NACUBO standards-Part two. <u>Business Officer</u>, pp. 18-20.
- Minter, W.J., & Conger, C.A. (1979, May). Comparing institutional reports of HEGIS financial data with AICPA-NACUBO standards-Part three. <u>Business Officer</u>, pp. 16-18.
- Patrick, C., & Collier, D.J. (1979). Checking the validity of summary statistics from HEGIS financial data. In Frances, C., & Coldren, S.L. (eds.), <u>Assessing financial health</u>. New Directions for Higher Education, no. 26. San Francisco, CA: Jossey-Bass.
- Teeter, D.J. (1983). The politics of comparing data with other institutions. In Firnberg, J.W., & Lasher, W.F. (eds.), The politics and pragmatics of institutional research. New Directions for Institutional Research, no. 38. San Francisco, CA: Jossey-Bass.
- Teeter, D.J., & Brinkman, P.T. (1987). Peer institutional studies/institutional comparisons. In Muffo, J.A., & McLaughlin, G.W. (Eds.), <u>A primer on Institutional Research</u>.

 Tallahassee, FL: Association for Institutional Research.



- Teeter, D.J., & Brinkman, P.T. (1992). Peer institutions. In

 Whiteley, M.A., Porter, J.D., & Fenske, R.H. (Eds.), <u>The primer</u>

 <u>for Institutional Research</u>. Tallahassee, FL: Association for
 Institutional Research.
- Welzenbach, L.F. (Ed.) (1982). <u>College and university business</u>

 <u>administration</u>. 4th ed. Washington, DC: National Association
 of College and University Business Officers.
- Whiteley, M.A., & Stage, F.K. (1987). Institutional uses of comparative data. In Brinkman, P.T. (ed.), Conducting interinstitutional comparisons. New Directions for Institutional Research, no. 53. San Francisco, CA: Jossey-Bass.

Appendix A

NACUBO Definitions (Greene, 1992; Welzenbach, 1982).

Instruction: expenditures for all activities that are part of an instruction program (credit and noncredit courses; academic, vocational, technical, remedial, tutorial instruction; regular, special, extension sessions), as well as departmental research (except that separately budgeted specifically for research) and public service that are not separately budgeted.

Research: expenditures for activities specifically organized to produce research outcomes--commissioned externally and separately budgeted within.

Public Service: expenditures for activities (outside the context of an institution's instruction, research, and academic support programs) that are established primarily to provide noninstructional services beneficial to persons external to the institution—conferences, institutes, advisory services, reference bureaus, radio and television, consulting, etc.

Academic Support: expenditures primarily to provide support services for the institution's primary mission of instruction, research, and public service.

Student Services: expenditures for activities that have the primary purpose of contributing to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instruction program.

Institutional Support: expenditures for executive management, fiscal operations, general administration and logistical services, administrative computing support, and public relations and development. Excluded are institutional support for auxiliary enterprises, hospitals, and independent operations.

Operation and Maintenance of Plant: expenditures for physical plant administration, building maintenance, custodial services, utilities, landscape and grounds maintenance, and major repairs and renovations, fire protection, property insurance. Excluded



are auxiliary enterprises, hospitals, and independent operations.

Scholarships and Fellowships: expenditures for scholarships (grant-in-aid, trainee stipends, tuition and fee waivers, and prizes to undergraduate students) and fellowships (grant-in-aid and trainee stipends to graduate students). Recipients are not required to perform service to the institution as consideration for the grant, nor are they expected to repay the amount of the grant to the funding source. Excluded is financial assistance which requires services in exchange for the money (College Work-Study, teaching assistantships) and which is loaned.

Mandatory Transfers: transfer FROM the current funds group TO other fund groups because of mandatory debt service provisions on educational plant, loan fund matching grants, etc.

Nonmandatory Transfers: transfers FROM the current funds group TO other fund groups made at the discretion of the governing board.



Table 1: Conger's Data from a "Well-Managed" Institution

5555555	Expend: [in the	itures ousands]	Demand Ratios			_
	HEGIS	Minter Conger	HEGIS	Minter Conger		
-		4 000			_	
Instruction	4,612	4,238	48%	44%	ΟÏ	9,575
Academic Support	211	743	2	8		
Student Services	581	590	6	6		
Institutional Support	1,119	999	12	10		
Plant O&M	786	794	8	8		
Scholarships	2,266	1,470	24	15		
	9,575	8,834	100%	92%		

Table 2: Institutions Sent Requests

American University Boston College Bradley University Catholic University of America Dartmouth College University of Denver Duquesne University Fordham University Hofstra University University of La Verne University of Miami Northwestern University Pepperdine University University of San Diego Saint Louis University Seton Hall University Stetson University Tulane University Villanova University

Baylor University Boston University Carnegie Mellon Creighton University University of Dayton Drake University Emory University Gonzaga University Illinois Institute of Tech. Marquette University Northeastern University University of Notre Dame Rice University University of San Francisco Santa Clara University Southern Methodist University Texas Christian University Vanderbilt University Washington University (MO)



Table 3: Over/Under Reported Expenditures By Categories

Institutions ====>	#1	#2	#3	#4
Instruction	under	over	over	
Research		under	~	
Public Service	under		over	under
Academic Support	under	under	under	over
Student Services	under	over	over	over
Institutional Support	over	under	under	under
Plant	under		over	over
Scholarships	over			

Table 4: Demand Ratios

	N S T	CATEGORY EXPEND. divided by TOTAL E&G EXPEND.			STANDARDIZED RATIOS "BEFORE" & "AFTER" AND DIFFERENCES
EXPENDITURE CATEGORIES	NUMBER	demand o	demand of after	liff.	demand demand diff. before after
INSTRUCTION	1 2 3 4	35.0% 46.1% 37.0% 37.4%	35.7% 42.0% 35.0% 37.4%	0.7% -4.1% -2.0% 0.0%	100.00% 102.00% 2.00% 100.00% 91.11% -8.89% 100.00% 94.59% -5.41% 100.00% 100.00% 0.00%
RESEARCH	1 2 3 4	0.0% 5.9% 6.2% 0.3%	0.0% 6.1% 6.2% 0.3%	0.0% 0.2% 0.0% 0.0%	100.00% 100.00% 0.00% 100.00% 103.39% 3.39% 100.00% 100.00% 0.00% 100.00% 0.00%
PUBLIC SERVICE	1 2 3 4	1.4% 1.1% 1.0% 4.8%	1.48 1.18 0.08 5.08	0.1% 0.0% -1.0% 0.2%	1.100.00% 104.17% 4.17%
ACADEMIC SUPPORT	1 2 3 4	18.4% 5.7% 13.7% 13.6%	18.8% 8.6% 16.7% 11.1%	0.4% 2.9% 3.1% -2.6%	100.00% 102.17% 2.17% 100.00% 150.88% 5(.88% 100.00% 121.90% 21.90% 100.00% 81.62% -18.38%
STUDENT SERVICES	1 2 3 4	5.1% 5.8% 6.1% 7.8%	5.3% 5.5% 5.9% 6.7%	0.2% -0.2% -0.2% -1.1%	100.00% 103.92% 3.92% 100.00% 94.83% -5.17% 100.00% 96.72% -3.28% 100.00% 85.90% -14.10%
INSTITUTIONAL SUPPORT	1 2 3 4	19.2% 10.9% 13.8% 8.5%	17.3% 12.7% 14.5% 13.3%	-1.98 1.88 0.78 4.88	
PHYSICAL PLANT OPERATION AND MAINTENANCE	1 2 3 4	8.5% 9.1% 7.7% 15.4%	8.7% 9.1% 6.8% 14.6%	0.28 0.08 -0.98 -0.88	100.00% 102.35% 2.35% 100.00% 100.00% 0.00% 100.00% 11.69% 100.00% 94.81% -5.19%
SCHOLARSHIPS & FELLOWSHIPS	1 2 3 4	12.5% 15.5% 14.5% 12.1%	10.8% 15.5% 14.5% 12.1%	-1.78 0.08 0.08 0.08	: 100,00% 100,00%
TOTAL E&G	1 2 3 4	100.0% 100.0% 100.0% 100.0%	98.0% 100.5% 99.6% 100.5%	-2.0% 0.5% -0.4% 0.5%	: 100.00% 99.60%

Table 5: Commonly Misplaced Departments and Activities

Ermond	Misplaced Departments and Activities				
Expend. Areas	Minter and Conger (1979)	Current Study			
Instruction	academic support activities (e.g., academic administration) and noninstructional sponsored programs	Deans' offices Computer Center			
Research	instructional and student financial aid expenditures				
Pub.Service	alumni and public relation activities				
Acad.Support		Provosts & academic VP's Computer Center			
Stdt Service		Student Services VP's Intercollegiate Athletics Dining/Housing activities			
Inst.Support	academic computing, admissions, reg. and student records, all staff benefits, all work-study payments, and plant debt expenditures	Retiree & staff benefits Computer Center Dining and Housing activit Registration some Auxiliary Activities			
Plant O&M	campus security	Campus Security and Safety			
Scholarship	all college work-study expenditures	Athletic Scholarships			