

Perceived Impact of Financial Constraints on Teaching Conditions

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Administrators of higher education have problems linking input to output. Consequently, how to demonstrate credible effects of financial constraints on institutional activities always constitutes a challenge to them. As a means for demonstrating effects of financial constraints on aspects of institutional productivity, this study investigates faculty perceptions of the impact of financial constraints on teaching conditions. Teaching conditions in this study include matters relating to the faculty, curriculum development, instructional technology, and instructional related issues. The three institutions studied represent three sectors: public university, community college, and small private college. While respondents perceived financial constraints in all the sectors, faculty from the university perceived the highest level of constraints. The university sector also indicated the highest level of impact on all the variables investigated. Faculty recommended several strategies including increase in instructional budget and improvement of professional development as means for improving the quality of instruction at higher education institutions

Introduction

Linking input to output in education is a major problem confronting educational leaders. This is so because educational leaders are under increasing pressure from the public and the government to indicate the association between the resources going into education and educational productivity.

But institutional leaders are confronted with a predicament because, on the one hand, they feel the impact of financial constraints, but, on the other hand, they are unwilling (perhaps unable) to claim that educational productivity has declined as a result of resource constraints in their institutions. Few, if any, of these leaders are willing to claim that this year's diploma is inferior to that of the previous year's. Admittedly, scholars have yet to develop any reliable or valid measure of diploma depreciation. Teaching and learning are human activities that elude linear, simplistic analysis. Also, even if it were possible for such an analysis to be done, it would be politically unwise for educational leaders to make that claim. Third, to the extent that diplomas issued to graduates may not indicate actual learning and future potential, any attempt to ascribe quality to diplomas is fraught with difficulty and questionable approximations.

Consequently, educational administrators tend to rely on general, sometimes vague, descriptions of their institutional conditions as they lament the threat of financial and resource constraints. Almost always, their pleas end with

an assurance that the financial situation has not affected the quality of their educational programs, but quickly add a caveat that quality could suffer if the situation persists. As financial constraints continue in our universities and colleges, there is a need to develop a better way to link the status of resources to educational output. The complexity of the task, however, must not deter scholars from continually searching for ways to demonstrate the impact of financial constraints on educational quality.

This paper is a contribution toward our search for a link between resources and educational productivity. It reports a study of faculty members' views of their teaching conditions vis-a-vis the level of resource constraints in their institutions. The paper concludes with some recommendations for administrators of higher education institutions as well as personal reflections and suggestions for future studies.

Background

Financial constraints in American colleges and universities have been a common subject of discussion among higher education administrators and scholars. Harris (1991) observed that "the winds of change are blowing at gale force in higher education. . . . The environment in which American higher education operates has undergone profound change. The essence of that change can be distilled down to one word: competition" (p. 3). Competition for resources has intensified as a result of prolonged financial constraints. Pickens (1993) pointed out that "the mood is

different now and much more grim. Now, the prognosis is almost universal that there will be a prolonged period of limited resources. Everywhere we hear that resources are scarce" (p. 5).

Michael and Holdaway (1992) provided four overlapping stages of higher education, stages characterized by elitism, reconstructionism, reductionism, and entrepreneurialism. The authors noted that the reductionism (cut back, down size, retrenchment) that started in the eighties has continued into the nineties. Schuh (1990) summarized many people's feelings regarding the financial situation in higher education:

This is not a pleasant time to be responsible for financing institutions of higher education. Costs of attending institutions are rising faster than inflation, support for state-assisted institutions is static or eroding, and questions are being raised as to the efficacy of expenditures for student affairs functions when resources might be better utilized in other parts of the institution. During the 1950s and 1960s, the growth of college and university resources was such that the era has been described as a golden age, but as we move toward the end of this century, resources are much less plentiful. . . . Concern about inflation, government costs, and demographic changes has plagued the financial health of higher education. (p. 1)

Similar feelings were expressed by Coate (1992), Lisensky (1993), and Thompson (1992) to mention but a few. Nonetheless, constraints continue to affect not only student affairs functions but every aspect of the higher education institution. Even as administrators strive to insulate teaching from the impact of financial constraints and prevent an erosion in the quality of instruction, constraints continue to impact on the environment within which teaching is being conducted forcing us to wonder about the quality of instruction in postsecondary institutions. As noted by Gaff and Wilson (1977):

Each of the 2,537 colleges and universities in the United States has particular programs, policies, procedures, and personnel with which it attempts to influence the kinds of teaching, learning, and living which occur within its context. The totality of these factors constitute the environment of a school which both affords opportunities and sets limitations on individuals. Few people are able to rise above their environment and consistently act against its constraints. (p. 50)

Many of the criticisms that are levied against teaching in higher education fail to take a critical look at the conditions or the environment in which teaching is being conducted. Recently, these criticisms have been on the increase; thus, necessitating an investigation of faculty views regarding the conditions under which they teach.

Higher education provides three main functions to so-

ciety: creation of knowledge, transmission of knowledge, and provision of service. Of these functions, the role of transmitting knowledge (or teaching) constitutes a basic characteristic common to all higher education institutions. While institutions vary in their emphases on research and service, it is valid to say that, without students to teach, institutions will not survive in their present forms. Given the centrality of teaching to colleges and universities and the importance of teaching to the general public, a continuous search for ways to improve teaching in these institutions should continue to receive high priority among educational administration scholars.

Theoretical Framework

It is assumed in this paper that the quality of instruction in any institution of higher education is a function of the quality of the teaching conditions. As shown in Figure 1, these teaching conditions include factors associated with the faculty, curriculum, and instructional strategies, and these factors can be evaluated both quantitatively and qualitatively. For example, in terms of the faculty, quality of instruction would depend on the number of faculty available and the quality of the professional development available to them. In terms of resources, such as instructional materials and technology, both the amount and quality of available resources would impact the quality of instruction. Also, the institutional climate in terms of instructional leadership, reward systems, and faculty-faculty/faculty-administration/student-faculty relationships would impact the overall quality of instruction.

Therefore, administrators of higher education institutions interested in examining the quality of instruction within their institution should examine the conditions under which teaching is being conducted. Figure 1 shows that these conditions interact with each other to influence the quality of instruction. A major assumption of this study is that prolonged financial constraints may have direct or indirect impact on teaching conditions which, in turn, may impact the quality of instruction. Also, it is assumed that, if adverse conditions exist in an institution, faculty members are the best source of information regarding the quality of teaching conditions.

This figure shows that financial constraints exist as a result of many factors and that higher education institutions have adopted several strategies to respond to these constraints. These strategies, nonetheless, may have implications for teaching conditions. For example, early retirement incentives (a popular strategy for reducing salary/benefit cost) reduce the number of experienced faculty members available in some institutions and in others it reduces the total number of faculty available for teaching. Therefore, by examining financial constraints in institutions of higher education as they affect teaching conditions, scholars may offer a valid basis for commenting on the quality of instruction.

Figure 1
 Conceptual Framework of Impact of Financial Constraints on the Quality of Instruction

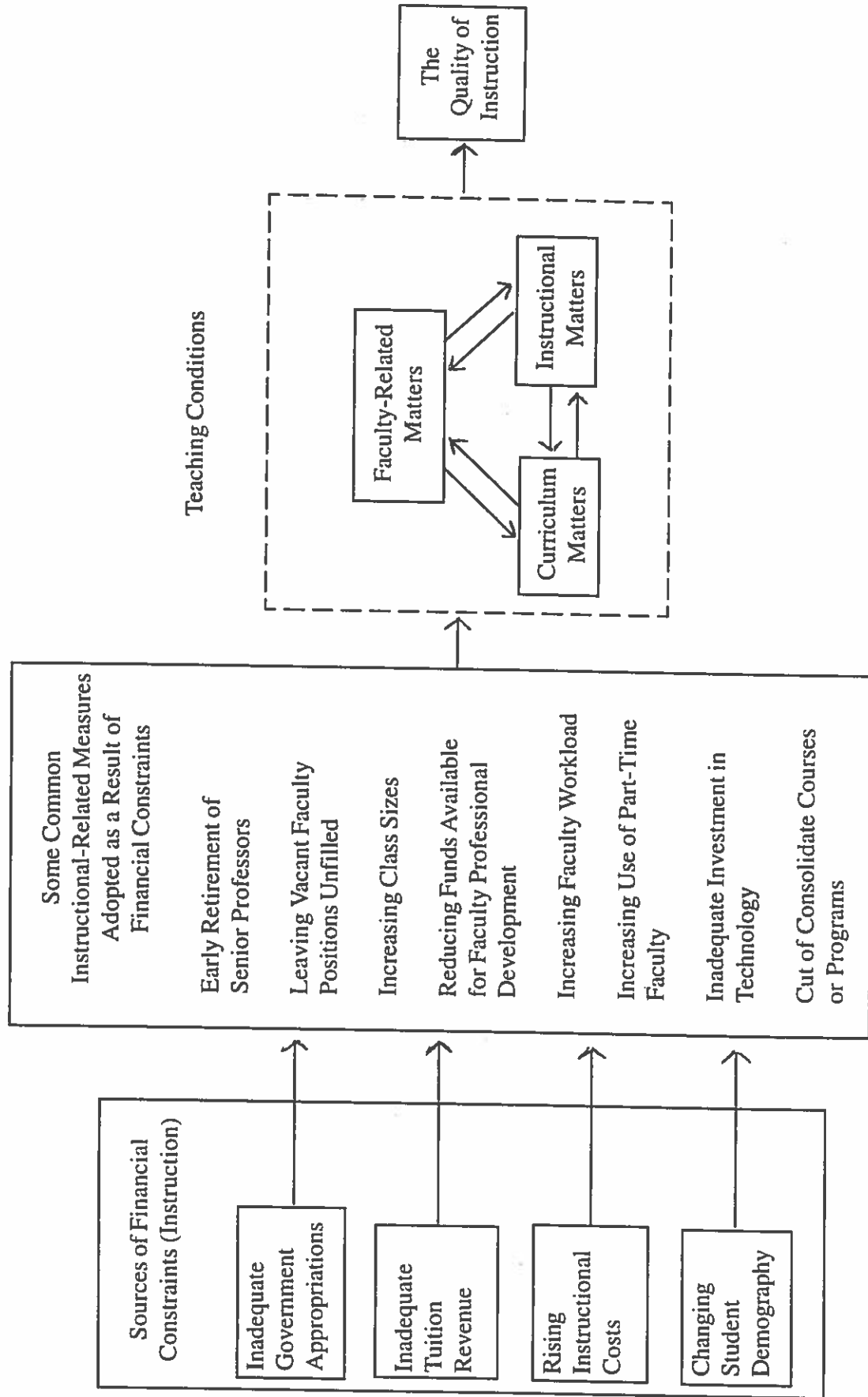


Table 1.
Summary of Statistics on Financial Constraints

Research Questions	Type of Institutions			F-Value	F-Prob.
	Large Public University <i>M</i>	Large Community College <i>M</i>	Small Private College <i>M</i>		
<u>Level of Perceived Financial Constraints:</u>					
Financial constraints affecting the institution	3.84	3.00	2.92	15.2370	0.0000
Financial Constraints affecting personal department or program	3.93	3.24	2.92	9.8891	0.0001
Financial constraints at institution as compared with other institutions in Ohio	3.35	2.94	2.69	4.7520	0.0087
Level of resources available for instructional purposes	3.08	2.97	2.61	3.2252	0.0511
<u>Perceived Impact of Financial Constraints on Curriculum Matters:</u>					
Number of courses developed in the past 5 years	-2.42	-1.15	0.39	9.3803	0.0003
Number of courses currently available to students	-2.52	-1.36	0.39	7.9630	0.0004
The extent of curriculum coverage	-2.31	-0.61	-0.23	7.4900	0.0005
The overall quality of curriculum offerings	-2.31	0.12	0.23	12.0112	0.0000
<u>Perceived Impact of Financial Constraints on Instructional Matters:</u>					
Number of instructional strategies	-1.78	0.14	0.31	8.4323	0.0002
Kind of teaching strategies available	-1.53	0.03	0.15	4.9324	0.0053
The quality of teaching strategies available	-1.53	0.15	0.69	6.6918	0.0010
The level of instructional materials available	-2.06	-0.63	0.39	6.2975	0.0026
The quality of instructional materials	-1.97	-0.47	0.31	6.3193	0.0025
<u>Perceived Impact of Financial Constraints on Faculty Relationships:</u>					
Relationship between faculty and administration	-2.69	-0.94	0.08	9.5641	0.0001
Relationship among faculty members	-1.06	0.17	0.29	4.4042	0.0210
Relationship between faculty and students	-1.12	0.25	0.74	7.3993	0.0010
<u>Perceived Impact of Financial Constraints on Faculty Professional Development:</u>					
Time available for academic advising	-2.02	-0.77	0.00	6.0363	0.0020
Time available for personal research	-2.75	-2.52	-0.23	5.7605	0.0032
Number of professional conferences attended	-2.89	-2.42	-0.50	5.2417	0.0042
The quality of faculty professional development	-2.81	-0.79	-0.81	9.9197	0.0001
<u>Perceived Impact of Financial Constraints on Instructional-Related Matters:</u>					
Personal stress level	-2.39	-0.85	-0.000	6.9276	0.0000
Personal job security	-2.09	-1.32	-0.31	4.3750	0.0115
General institutional climate	-2.69	-1.00	-0.33	8.7238	0.0002
<u>Recommended Strategies for Improving the Quality of Instruction:</u>					
Increase the instructional budget allocation	3.88	3.42	3.62	2.3043	0.1046
Increase academic advising	3.31	3.26	2.77	1.1533	0.3194
Provide pedagogical training for faculty	3.46	3.14	2.80	1.8233	0.1663
Adopt peer classroom visitation	2.77	2.75	2.37	1.4692	0.2407
Increase admissions requirements	3.46	2.89	2.39	5.9286	0.0036

Method

A questionnaire was developed and pilot tested with 15 professors. A Cronbach reliability test was conducted with an estimated coefficient of 0.93. Analysis of variance was used to detect differences among the sectors (university, community college, and private college) involved in the study.

Three institutions in Northeast Ohio were selected to participate in the study: a large public university with approximately 23,000 students, a large community college with 27,000 students, and a small private college with 1,535 students. The public university had a total of 1,395 (965 full-time) faculty members, the community college had 780 (380 full-time) faculty members, and the private college had 181 (90 full-time) faculty members. Of these statistics, 10% of the faculty members were randomly selected but only 81 (58.9%), 37 (47%), and 16 (80%) completed questionnaires were received from the public university, community college, and private college respectively.

The respondents represented all ranks within each sector. At the university sector, 25 (22.1%) were full professors, 30 (26.5%) were associate professors, 35 (31%) were assistant professors, 13 (11.5%) were lecturers, and 10 (8.9%) were classified as others. At the community college, 12 (21.1%) were full professors, 13 (22.8%) were associate professors, 8 (14%) were assistant professors, 17 (29.8%) were lecturers, and 7 (12.3%) were classified as others. At the private college, 5 (31.3%) were full professors, 4 (25.0%) were associate professors, 4 (25.0%) were assistant professors, 2 (12.5%) were lecturers, while 1 (6.3%) was classified as other. In total, 42 full professors, 47 associate professors, 47 assistant professors, 32 lecturers, and 18 others participated in the study.

Respondents from the university sector have taught for 15 years of which 10 years were at the present institution. Respondents from the community college have taught for 19 years out of which 14 years were in the present institution and respondents from the private college have taught, on the average, for 21 of which 13 years were in the present institution. In total, the respondents from all the sectors average 18 years of teaching and 12 years in their present institutions.

Findings

Table 1 provides a summary of findings to the seven research questions relevant to financial constraints and teaching conditions. Respondents from the university sector perceived a high level of financial constraints affecting their departments/programs ($M = 3.93$) and their institutions ($M = 3.84$). The level of financial constraints in respondents' institutions as compared with similar institutions in Ohio and the level of resources available for instructional purposes were perceived to be moderate. Participants from both the community college and private col-

lege sectors perceived the level of financial constraints on all the items presented to them to be moderate. Significant differences were observed between the university sector and the private college sector.

Participants from the university sector perceived a more negative impact of financial constraints on the number of courses currently available to students ($M = -2.52$), the number of courses developed in the past 5 years ($M = -2.42$), the extent of curriculum coverage ($M = -2.31$), and the overall quality of curriculum offerings ($M = -2.31$) than either the community college or the private college sector. Significant differences were observed between the university sector and the community/private college sector on all the items. Similarly, moderate but negative impact of financial constraints were perceived regarding the level of instructional materials available ($M = -2.06$), the quality of instructional materials ($M = -1.97$), the number of instructional strategies available ($M = -1.78$), kind of teaching strategies available ($M = -1.53$), and the quality of teaching strategies available ($M = -1.53$). Very little or no impact was perceived on all these items at the community and private college sectors. Significant differences ($p < .05$) were observed between the university and both the community and the private college sectors.

At the university sector, moderate but negative ($M = -2.69$) impact of financial constraints was perceived on the relationship between the faculty and administration, low but negative impact on the relationships between the faculty and students ($M = -1.12$), and among the faculty themselves ($M = -1.06$). No such impact was perceived either at the community or the private college sectors. However, significant differences between the university sector and the community/private college sectors were observed at the 0.05 alpha level. Both the university sector and the community college sector perceived moderate but negative impact on the number of professional conferences attended ($M = -2.89$ and $M = -2.24$), and time available for personal research ($M = -2.75$ and $M = -2.52$). A moderate but negative impact was observed on the quality of faculty professional development at the university sector. No such observations were made at the private college sector. Significant differences were observed between the university and the private college sector on all the items.

Respondents from the university sector perceived moderate but negative impact of financial constraints on the general institutional climate ($M = -2.69$), followed by the impact on personal stress level ($M = -2.39$). Only small but negative impact on personal job security was observed at the university sector. Little or no impact at all was observed at the small private college sector. Significant differences between the university and the community college sector and the private college sector, and between the community college sector and the private college sector were observed at the 0.05 alpha level. Increasing budgetary allocations to instructional activities were perceived to be a highly effective way of improving the quality of instruction at the university sector ($M = 3.88$) and the private college sector

($M = 3.62$), while all the remaining items were considered to be moderately effective strategies for achieving this purpose. Participants from the university sector considered increasing admissions requirements to be moderately effective in improving the quality of instruction. Those from the private sector considered it to be only modestly effective. No other significant differences were observed among the sectors on all the strategies recommended for improving the quality of instruction at the alpha level of 0.05.

Discussion

Sectoral differences in perceptions of the level of financial constraints could be attributed to university faculty members' exaggeration of their condition or to the differences in funding sources. Of all funding sources (tuition, fundraising and development, government appropriations, local tax, revenue from business-related activities), government appropriations remain the most unpredictable—a factor that explains the precarious funding situation within the university sector. As compared with other institutions within the same sector, respondents did not perceive their condition to be worse off; hence, the notion that it is always greener on the other side was not observed in this study.

The mission of a university entails, among other things, the offering of new courses. This explains why university faculty members financial constraints to have a more negative impact on their curriculum responsiveness. The same explanation could also be offered with respect to the impact of financial constraints on instructional strategies in which the university sector reported a more negative effect.

A more negative impact of financial constraints on the various relationships presented to the respondents was observed only at the university sector. This was expected since the level of constraints was highest at this sector. As noted by Gaff and Wilson (1977), faculty relationships with the administration, students, and among themselves have an impact on learning outcomes.

Respondents from the university sector perceived a more negative impact of financial constraints on professional development than those from the community and private colleges. This finding supports Baiocco and DeWaters (1995) who stated that:

Today, leading higher education institutions understand the challenges ahead, but few seem to be making the connection between new demands and the cultivation of the faculty. They acknowledge the need to encourage an attitude toward lifelong learning among new faculty and to motivate senior faculty, as well as to provide students with the most effective and up-to-date instruction, yet findings from a recent survey of AAUP chapter leaders suggest that only modest, traditional efforts are being made to support the vital professional

growth of faculty necessary to adjust to the astronomical changes in American society. (p. 38)

On most of the instructional related matters relevant to the quality of teaching (time available for academic advising, stress levels among faculty, job security, and the institutional climate), faculty members from the private college reported the least impact while those from the university perceived the most impact.

The perceptions of faculty members were consistent across higher education sectors with respect to strategies recommended for improving the quality of instruction. Increasing the allocation to instructional budget was perceived as the most effective way to enhance the quality of instruction across the sector, while the least recommended strategy was peer classroom visitation. While the provision of pedagogical training for faculty and increasing admissions requirements were perceived relatively higher in the university sector, similar perceptions were not observed in either the community college or the private college.

Conclusions and Recommendations

As perceived by participants in this study, financial constraints existed in the institutions they represented, but sectoral variations were also found in the perceived severity of these constraints. Participants from the university sector reported the highest level of severity while the private college faculty reported the least. It cannot be concluded, however, that the quality of teaching at the private college sector is necessarily superior, but that the present wave of financial constraints impact more on teaching conditions at the public institutions than the private ones as perceived by the faculty.

In conclusion, administrators facing budgetary constraints are advised to pay attention to the quality of teaching conditions as specified in this study. Deteriorating teaching conditions will inevitably lead to an erosion of the quality of instruction. Second, politicians and state educational leaders need to recognize the differential impact of financial constraints on higher education sectors. The needs, missions, and environments of university and community college sectors differ remarkably and how they respond to financial cutbacks also differs. Third, perhaps the best approach to attempt to link input to output in education is to continue a more in-depth investigation of how financial situations affect teaching conditions. By so doing, a more concrete demonstration of the linkage in a manner that can be understood by the public could be offered by higher education administrators. Fourth, to be useful, a benchmark for teaching conditions could be developed against which periodic studies can be compared. Only by developing an index of perceptions over a period of time can institutions keep track of changes in the teaching conditions. Fifth, it would be myopic to think that only the administration has the responsibility for enhancing teaching conditions. Rather, a team approach involving faculty and administration, the

institution and society, donors and the government would be needed.

Attempting to link input to output by focusing on financial conditions vis-a-vis teaching conditions is a worthwhile exercise. It is in the interest of the public, governments, and institutional leaders that proofs of link between resources and outcomes be developed. The study reported here may be criticized for focusing solely on faculty perceptions (although faculty members are deemed the most knowledgeable group as far as the conditions surrounding their teaching are concerned). However, future studies should expand to include views from administration and students. The eleven-point bi-polar scale used to collect data on impact is highly recommended for future study because it offers the opportunity to report both negative and positive impact of financial cutbacks. Future studies should include variables such as computer access, classroom conditions, faculty reward, instructional leadership, and teaching evaluation as aspects of teaching conditions. The validity of this type of study lies largely on the extent to which factors associated with conditions of teaching and teaching effectiveness are fully covered. As long as the flow of resources to higher education continues to fluctuate and the public continues to demand greater financial accountability, the search for a demonstrable linkage between resource input and output will continue to warrant scholarly engagement.

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