American Educational Research Journal
Summer 1985, Vol. 22, No. 2, Pp. 279–295

Conrad, Clifton F. and Blackburn, Robert T. "Correlates of Departmental Quality in Regional Colleges and Universities." American Educational Research Journal 22 (Summer, 1985), pp. 279-295.

Correlates of Departmental Quality in Regional Colleges and Universities

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This article isolates correlates of departmental quality at the masters and doctoral level in regional colleges and universities. The 45 departments in the sample represent 14 public institutions in two states and include departments in biology, chemistry, education, history, and mathematics. In addition to simple correlation, the analysis is based on multivariate linear regression. Departmental quality is found to be correlated with individual and combined measures of faculty (scholarly productivity, grantsmanship, age and tenure status, geographical origin of highest degree, and teaching workload), students (number and ability), program (proportion of institutional degree programs at the advanced graduate level and curricular concentration), and facilities (library size). The findings suggest that the factors associated with graduate departmental quality are more multidimensional in regional colleges and universities than in highly ranked research universities.

Program quality or excellence is both a timeless and a timely issue in American higher education. What constitutes quality, how to identify it, and how to foster it are questions that have concerned educators since the founding of the colonial colleges. In this century alone, attention to program quality can be traced to the widespread adoption of accreditation,

The authors wish to express their appreciation to Carla Carlson, Systems Analyst in the Center for the Study of Higher Education at the University of Arizona, for her generous and helpful assistance in data collection and analysis.

the 1910 Flexner report on medical education, and the first major comparative ranking of institutions by Hughes in 1925. True to its historical roots, program quality is once more a priority issue (Webster, 1983). Much of the current concern has focused on the assessment of quality at the departmental level.

In most studies, departmental quality has been assessed either through a "reputational" approach or on the basis of "objective" indicators. In reputational studies, judgments of program quality are made by panels of peer experts whose assessments are combined to generate a rating and ranking of leading departments. Most reputational studies have been conducted at the doctoral level (Cartter, 1966; Conference Board of Associated Research Councils, 1982; Hughes, 1925; Keniston, 1959; Roose & Anderson, 1970), though a few have been conducted at the undergraduate level (Solmon & Astin, 1981) and in professional programs (Cartter & Solmon, 1977; Cole & Lipton, 1977).

In objective indicator studies, quantifiable variables for assessing department quality are selected on an a priori basis. This approach has been used by researchers to identify and rank departments in a variety of fields as well as to generate institutional rankings (Adams & Krislov, 1978; Bowker, 1964; Clemente & Sturgis, 1974; Eells, 1960; House & Yeager, 1978). As in reputational studies, most assessments have ranked departments at the doctoral level.

In recent years another line of research has emerged that does not focus on assessing departmental quality per se but rather on the identification of quantifiable characteristics associated with departments considered to be of high quality. This approach is aimed at isolating correlates of quality which provide a foundation for allowing predictions of departmental quality. Most of the studies in this tradition have examined the correlates of departmental quality at the graduate level as measured in the reputational studies by Cartter (1966) and Roose and Anderson (1970). Astin and Solmon (1981), Elton and Rogers (1971), Glenn and Villemez (1970), Hagstrom (1971), Knudsen and Vaughan (1969), and Solmon and Walters (1975) are examples of studies of the quantitative correlates of quality.

Across all three major strands of research—reputational, objective indicator, and quantitative correlate—there are two principal limitations. First, nearly all of the research has focused on top-ranked institutions, with most studies limited to selected departments in fewer than 100 research universities. Because departments outside of this elite institutional set often have different and more diverse goals, there is reason for skepticism when the techniques for examining or judging the quality of leading PhD departments are used on other types of colleges and universities (Lawrence & Green, 1980). Second, by placing major emphasis on faculty reputation and productivity as the major criteria used in assessing quality and in

identifying correlates of excellence, most studies have given much less consideration to other potentially important dimensions: teaching, student and curricular characteristics, facilities, support, and the quality of student experience.

In light of these criticisms, the research reported here sought to isolate quantitative correlates of departmental quality in regional colleges and universities. The study investigated multiple and diverse correlates of departmental quality at the masters and doctoral level.

METHODS

The study is based on data taken from five departments: biology, chemistry, education, history, and mathematics. These departments were selected on the basis of their representativeness of major disciplines and fields of study and in consideration of the availability of data. Each department had been reviewed at either the masters or the doctoral level (the majority at the masters level) in all 22 public 4-year institutions in two contiguous states, yielding a total of 110 departments. Owing to the absence of data in many of these departments, however, the sample was limited to those 45 departments in which sufficient data were available. These departments, representing 14 institutions, include 12 departments in biology, 9 in chemistry, 6 in education, 10 in history, and 8 in mathematics.

The measure of the dependent variable—departmental quality—was extracted from independently generated reports by teams of external reviewers who evaluated all 45 departments in the sample. A typical team consisted of three experts of national reputation in the discipline being reviewed who were from another geographical region. Each team conducted site visits; corroborated departmental self-studies; collected additional data; and interviewed students, faculty, and administrators. For each of the five disciplines, the same team visited all departments in a state. The reviewing team prepared a report discussing the strengths and weaknesses of each department as well as providing an overall consensus judgment of its quality. The summary assessments ranged from recommended closure to high praise.

For statistical analysis, three evaluation experts distinct from the review teams quantified the site visitors' reports by rating each department on a 5-point scale. Agreement among the raters was essentially identical in all but 2 of the 45 departments. The scores on these 2 programs were adjudicated by rereading and rescoring. (The rank order of the departmental quality measure did not change after adjustments were made.) The distribution of departmental ratings is shown in Table I.

The measure of the dependent variable can be likened to the peer review process, which is not without limitations (Cole, Cole, & Simon, 1981).

TABLE I

Distribution of 45 Departments by Rated Quality of Graduate Program (Biology, Chemistry, Education, History, Mathematics)

Departmental quality rating	No. of departments	Percent
Excellent (4.00–5.00)	5	11%
Good (3.00–3.99)	17	38
Adequate (2.00–2.99)	13	29
Less than adequate	10	22
Total	45	100%

Further, it should be noted that the reviewers had access to the independent variable data used in the study. Despite its limitations, the procedure used here offers a reasonable assessment of departmental quality. In contrast to previous studies, it is clear that the reviewers were judging overall departmental quality and not only the scholarly reputation and productivity of the faculty. This kind of peer review seems especially appropriate for assessing departments that have little or no national reputation.

Based on a systematic review of the literature on departmental quality, 164 independent variables were identified initially for inclusion in the study. These variables were classified into the 5 major categories (faculty, students, program, facilities, and support) and 19 subcategories displayed in Table II. Each of the departments in the sample had prepared extensive self-studies that followed a common format. This information was collected for all variables in the major categories and subcategories. Higher Education General Information Survey (HEGIS) reports were used to supplement and corroborate the self-study data. Institutional catalogs provided an additional source of data.

Lack of uniformity in some of the data and missing data reduced the number of variables actually used in the study to 73. Of these variables, 41 relate to faculty, 6 to students, 25 to program, 1 to facilities, and none to support. For the variables originally identified and those variables actually used in the study, Table II indicates the number of variables included in each of the major categories and subcategories. The justification for the institutional variables is that departments exist in an institutional environment which can be expected to affect departmental quality.

Most of the variable measures were generated by aggregating data for individual members/units either as means or as percentages. For example, most measures of faculty scholarly productivity were produced by taking the mean (average per faculty member) for each department. These self-supplied data can be expected to possess high validity (Allison & Stewart, 1974; Blackburn, Boberg, O'Connell, & Pellino, 1980).

Two problems arose with the independent variables. The first problem was that some of the self-study data were not uniformly reported by

TABLE II

Independent Variables, By Category/Subcategory and Level[a]

Category/subcategory	Departmental level		Institutional level	
	Actual[b]	Original[c]	Actual[b]	Original[c]
Faculty				
Status	10	14		
Training/background	12	16		
Scholarly productivity	17	24		
Teaching workload	2	4		
Total	41	58		
Students				
Number	1	6	4	4
Ability	0	0	1	1
Student characteristics	0	8	0	0
Student success	0	2	0	0
Total	1	16	5	5
Program				
Graduate degrees awarded	3	5	4	4
Number and range	5	8	7	7
Curricular concentration	0	0	2	4
Selectivity	0	5	0	0
Rigor	0	5	0	0
Accreditation status	0	1	2	2
Other	1	2	1	1
Total	9	26	16	18
Facilities				
Library resources	0	8	1	1
Laboratories/space/ equipment	0	7	0	3
Total	0	15	1	4
Support				
Faculty development/ scholarship	0	8		
General	0	14		
Total	0	22		
Grand Totals	51	137	22	27

[a] The number of independent variables at the departmental and institutional levels is indicated for each category and subcategory displayed in the table.

[b] Indicates the actual number of variables used in the study.

[c] Indicates the number of variables identified initially for possible inclusion in the study.

department chairs and faculty. For example, while faculty curriculum vitae were assumed to comply with a standard format, the information included under a category such as "professional activity" occasionally varied. In all such instances, the values of the relevant variables were treated as missing data. The remainder of the self-study data were cross-checked against independently collected data in the respective state offices and with HEGIS

reports. Because these data were highly consistent, it was concluded that the 73 independent variables exhibited a high degree of reliability.

A second problem concerned missing data. For each of the 73 variables, data were available for at least two-thirds of the 45 cases. This proportion was significant enough to allow the variables to be retained, but the missing cases had to be accounted for in the statistical analysis. Values were estimated for each missing case by regressing the corresponding variable on a subset of other variables chosen through a stepwise procedure and then using the fitted value as an estimate for the missing case. Because this is a conservative procedure for estimating missing data, the correlations reported here probably underestimate strength of association.

To generate findings that would be comparable with previous research, the procedure used here closely parallels the design employed by Hagstrom (1971). As an initial step in the analysis, simple correlation coefficients were computed between departmental quality and each of the 73 variables included in the study. Based on their strength of association, 32 of these variables were retained and provided the pool of variables used in the analysis.

Regression analysis was used to isolate the individual variables and combinations of variables that best explain variation in departmental quality. For purposes of analysis, the 32 variables were grouped in 14 of the subgroups identified above, such as scholarly productivity and teaching workload. Regressing each subgroup of variables on departmental quality allowed the variables of conceptual similarity to explain as much of the variation in quality as possible and also indicated the relative effect of each independent variable on departmental quality while holding constant all other variables in the subgroup. Using this regression procedure, the subgroups can be compared based on the percentage of quality that they explain, and the variables in each subgroup can be compared in terms of their relative contribution to departmental quality controlling for other variables in the subgroup.

RESULTS

Table III displays the simple correlation coefficients (zero-order product-moment correlations) between the 32 independent variables and departmental quality. Within each of the four major categories of variables, Table IV shows the relationship between each of the 14 subgroups and departmental quality. The mean elasticity for each variable in Table IV indicates the effect of each variable on departmental quality when other variables in the subgroup are held constant. A greater elasticity in absolute value indicates a more important contribution. Simply put, an elasticity of .5 indicates—at the mean—that a 1% increase in the independent variable is associated with a .5% increase in the dependent variable. In the following

discussion each subgroup is discussed in terms of the contribution of individual independent variables (Tables III and IV) and the overall contribution of the subgroup (Table IV) in explaining variation in departmental quality.

Faculty

As displayed in Table III, five of seven measures of scholarly productivity have moderate correlations with departmental quality. Examination of the mean elasticities of all seven variables in the subgroup reveals that the effects of two of these variables, mean yearly publication rate in the last 5 years and mean number of all publications from 1974–1979, remain important when other variables in the subgroup are held constant (Table IV). Owing to moderate to large correlations among all seven variables in the subgroup, several of the variables with the largest correlation coefficients (such as the percentage of faculty with four or more career publications) contribute relatively little when the other variables in the subgroup are taken into account (Table IV).

Turning to the overall contribution of the subgroup in explaining variation in departmental quality, the coefficient of determination (R^2) gives the proportion of variance accounted for by the linear combination of independent variables in the subgroup. As shown in Table IV, the combination of all seven variables accounts for 28% of the variance in rated departmental quality. While this combined measure suggests that scholarly productivity is an important component of departmental quality, the amount of variance explained is considerably less than that found in previous research. Most studies have found that from 50% to over 80% of the variance in departmental quality can be explained by one or more measures of scholarly productivity (Drew & Karpf, 1981).

Grant support has been shown to be an important factor contributing to research productivity in research universities (Hagstrom, 1971, p. 384). Two measures of "grantsmanship" used in this study have small correlations with departmental quality (Table III). Combined they account for less than 7% of the variance in departmental quality (Table IV). Based on these findings, grant support seems less important than previous research has suggested.

While most studies of faculty productivity have found positive correlations with age and tenure (Blackburn, 1972), the results reported here dispute those findings. As shown in Table III, measures of age and tenure are negatively associated with departmental quality. By itself, percentage of faculty with tenure accounts for nearly 7% of the variance in departmental quality, and the combination of the two variables accounts for over 10% of the variance (Table IV). The negative relationship (Tables III and IV) between a measure of the average work experience of faculty outside

TABLE III

Simple Correlation Coefficients Between Selected Independent Variables and Graduate Departmental Quality

Subgroup/independent variables	Correlation coefficient[a]	Significance level[b]
Faculty		
Scholarly productivity		
Mean number of conference papers last 5 years	.36	.007
Mean yearly publication rate last five years	.36	.008
% faculty with four or more career publications	.26	.040
Mean number of articles published in local journals last 5 years (joint author)[c]	−.26	.044
Mean number of all publications, 1974–1979	.25	.052
Mean number of book reviews last 5 years	.18	.122
Mean number of all publications, 1968–1973	.10	.256
Grantsmanship		
Mean dollar value of grants	.23	.065
Mean number of grants received	.17	.127
Age and tenure		
% faculty with tenure	−.26	.045
% faculty over 50 years of age	−.23	.061
Work experience outside current institution		
% faculty who have worked 9 or more years in government, business, industry, or other colleges and universities	−.17	.136
Educational qualifications		
% faculty whose highest degree is terminal degree[d]	.24	.053
Geographical origin of highest degree		
% faculty with highest degree from regional university	.27	.034
% faculty with highest degree from in-state university[e]	.23	.065
Teaching workload		
Mean number of semester hours currently teaching at both graduate and undergraduate level	−.35	.009
Students		
Number		
Total student enrollment at undergraduate level (institution)	.43	.001
Total student enrollment at undergraduate and graduate level (institution)[f]	.42	.002
Total student enrollment at graduate level (institution)	.31	.020

TABLE III—*Continued*

Subgroup/independent variables	Correlation coefficient[a]	Significance level[b]
Number of undergraduate students enrolled in program	.22	.073
Ability		
Mean undergraduate students ACT score (institution)	.31	.020
Program		
Graduate degrees awarded		
Total number of degrees awarded annually at specialist level	.23	.064
Total number of degrees awarded annually at masters level	.19	.108
Total number of degrees awarded annually at doctoral level	.11	.232
Number and range		
Range of masters degree programs (institution)[g]	.17	.134
Total number of doctoral degree programs (institution)	.16	.141
Total number of baccalaureate degree programs (institution)	.09	.268
Proportion of degree programs at specialist and doctoral levels		
% of degree programs at doctoral level (institution)	.26	.042
% of degree programs at specialist level (institution)	−.19	.108
Curricular concentration		
% of undergraduate students majoring in the natural sciences (institution)	.54	.001
% of graduate students majoring in the natural sciences (institution)	.46	.001
Facilities		
Library size		
Number of volumes in the library (institution)	.15	.170

[a] Zero-order product-moment correlations.

[b] Probability that the correlation of that size or larger would be obtained when the population correlation is zero.

[c] Local journals were defined as journals published in the state.

[d] Terminal degrees were defined as PhD, JD, and EdD degrees.

[e] Regional universities were defined as those universities located in states served by the Southern Regional Education Board except Texas and Oklahoma.

[f] Institutions. in parentheses, refers to institutional variables.

[g] Range was defined as the number of program areas, based on the Higher Education General Information Survey (HEGIS) program classification structure, in which masters level programs were offered.

TABLE IV

Multiple Correlations Between Selected Subgroups of Related Variables and Graduate Departmental Quality

Subgroup/variables	Mean elasticity	Coefficient of determination (R^2) for subgroup
Faculty		
Scholarly productivity		
Mean yearly publication rate last 5 years	.142	
Mean number of all publications, 1974–1979	.136	
Mean number of conference papers last 5 years	.072	
Mean number of articles published in local journals last 5 years (joint author)	−.069	
% faculty with four or more career publications	−.022	
Mean number of book reviews last 5 years	.017	
Mean number of all publications, 1968–1973	.012	.282
Grantsmanship		
Mean number of grants received	.038	
Mean dollar value of grants	.029	.074
Age and tenure		
% faculty with tenure	−.242	
% faculty over 50 years of age	−.144	.106
Work experience outside current institution		
% faculty who have worked 9 or more years in government, business, industry, or other colleges and universities	−.112	.028
Educational qualifications		
% faculty whose highest degree is terminal degree	.836	.059
Geographical origin of highest degree		
% faculty with highest degree from regional university	.198	
% faculty with highest degree from in-state university	.130	.083
Teaching workload		
Mean number of semester hours currently teaching at both graduate and undergraduate levels	−.486	.124*
Students		
Number		
Total student enrollment at undergraduate and graduate levels (institution)[a]	2.138	

TABLE IV—*Continued*

Subgroup/variables	Mean elasticity	Coefficient of determination (R^2) for subgroup
Total student enrollment at graduate level (institution)	−1.177	
Total student enrollment at undergraduate level (institution)	−.090	
Number of undergraduate students enrolled in program	.044	.321*
Ability		
Mean undergraduate students ACT score (institution)	.549	.094*
Program		
Graduate degrees awarded		
Total number of degrees awarded annually at doctoral level	−.039	
Total number of degrees awarded annually at specialist level	.031	
Total number of degrees awarded annually at masters level	.022	.069
Number and range		
Range of masters degree programs (institution)	.108	
Total number of baccalaureate degree programs (institution)	.054	
Total number of doctoral degree programs (institution)	.028	.034
Proportion of degree programs at specialist and doctoral level		
% of degree programs at doctoral level (institution)	.160	
% of degree programs at specialist level (institution)	−.154	.168*
Curricular concentration		
% of undergraduate students majoring in the natural sciences (institution)	.355	
% of graduate students majoring in the natural sciences (institution)	.149	.307*
Facilities		
Library size		
Number of volumes in the library (institution)	.076	.021

[a] Institution, in parentheses, refers to institutional variables.
* Significant at $p < .05$ level, F test on regression.

their current institution provides additional support for the interpretation that less experienced, younger, and untenured faculty contribute disproportionately to departmental quality.

In terms of the educational background of faculty, several studies have found a moderate to large positive correlation between reputation of the doctorate-granting institution of faculty and research productivity (Clemente & Sturgis, 1974; Crane, 1965). In this study, a measure of the quality of the doctorate-granting institution had a very low correlation with departmental quality (variable not included in Tables III and IV). However, several variables relating to the educational background of faculty were associated with departmental quality. A measure of the educational qualifications of faculty was moderately correlated (Table III) and, by itself, accounts for nearly 6% of the variance in departmental quality (Table IV). Two measures of the geographical origin of the highest degree of faculty also were moderately correlated with departmental quality (Table III); combined they explain over 8% of the variance in departmental quality (Table IV).

Finally, a measure of teaching workload had a moderate negative correlation with departmental quality (Table III), accounting for over 12% of the variance in the dependent variable (Table IV). Compared to many of the subgroups examined here, teaching workload is a strong predictor of departmental excellence.

Students

As shown in Table III, three of the four measures of the number of students enrolled had moderate to large correlations with departmental quality. Examination of the mean elasticities in Table IV shows that two of the institutional measures of student enrollment remain important when all variables in the subgroup are taken into account. When all four of the variables related to student enrollment are combined in a multivariate linear regression equation, they account for 32% of the variance in departmental quality (Table IV). The large coefficient of determination for this subgroup strongly indicates that institutional and departmental size, as measured by student enrollment, is an important component of departmental quality.

In terms of the academic ability of students, the single measure used here is moderately associated with departmental quality (Table III), accounting by itself for over 9% of the variance in the dependent variable (Table IV). This finding is consistent with other studies that have found a significant relationship between student selectivity and departmental quality (Astin & Solmon, 1981; Hagstrom, 1971).

Program

Three measures of the total number of graduate degrees awarded have

small correlations with departmental quality (Table III), accounting for less than 7% of the variance (Table IV). At the institutional level, three measures of the number and range of programs have even smaller correlations with departmental quality (Table III); when combined they account for only 3% of the variance (Table IV).

Two institutional measures of the proportion of institutional program offerings at the advanced graduate level have small to moderate associations with departmental quality (Table III). When combined they account for nearly 17% of the variance in quality (Table IV). These findings suggest that departments are likely to be of higher quality when they are located in institutions with a relatively large proportion of degree programs at the doctoral level and few, if any, programs at the specialist level.

Finally, two institutional measures of curricular concentration have large correlations with departmental quality (Table III). When combined they account for 30% of the variation in departmental quality (Table IV). These findings strongly suggest that departments in institutions with a large proportion of graduate and undergraduate students enrolled in the natural sciences are of higher quality.

Facilities

Of the 164 variables originally identified, 19 were classified in the facilities category. Because of missing data, however, all but one of the variables had to be dropped from the analysis. The single remaining variable, number of volumes in the library, has a small correlation with departmental quality (Table III). This variable accounts for about 2% of the variance in departmental quality (Table IV).

DISCUSSION

Over a decade ago, in his study of the correlates of prestige in science departments, Hagstrom (1971) found that combinations of from six to nine variables could explain about 75% of the variance in departmental excellence. He concluded that "unless it is possible to devise some systematic causal theory, it will make little sense to seek additional predictors of departmental prestige or productivity" (p. 389). With most of the variance explained with a handful of variables, any estimate of departmental quality was not going to be substantially improved with the addition of another variable.

Other studies of the correlates of quality provide support for Hagstrom's conclusion. While the magnitude of the correlations varies across studies, several clusters of variables have been found to account for a substantial amount of variation in departmental quality. In particular, department size (Elton & Rogers, 1971; Elton & Rose, 1972; Hagstrom, 1971) and research/publication productivity (Cartter, 1966; Drew & Karpf, 1981;

Hagstrom, 1971; Knudsen & Vaughan, 1969) have been identified as significant correlates of departmental quality.

For the problem he and most other researchers set for themselves, Hagstrom probably was right in concluding that there was not much to be gained by further refining measures of departmental quality, at least not for top-ranked programs identified on the basis of reputational ratings. However, the findings reported here suggest that when departmental quality as measured through well-informed peer review is examined in regional colleges and universities, there may be much to be gained by further refining measures of quality.

Of the major correlates of quality identified in previous studies that were examined here, most have been found to have at least small correlation with departmental quality. At the same time, however, most of the key correlates of quality isolated earlier were not found to have the same strength of association with departmental quality. Faculty scholarly productivity, grantsmanship, and educational qualifications; student enrollment (number) and ability; and library size all were found to be less powerful correlates of departmental quality than previously suggested.

No less telling is our finding that departmental quality seems to have qualitative dimensions seldom explored in previous research. This study has isolated a variety of such correlates, including faculty teaching workload (negative correlation), age and tenure status of faculty (negative correlation), graduate degrees awarded, and number and range of degree programs. Moreover, some of the correlates identified in this study suggest that various characteristics of the institutional environment affect departmental quality. Several institutional variables and combinations of institutional variables related to student and program characteristics had at least moderate correlations with departmental quality: student enrollment, student ability, proportion of degree programs at the advanced graduate level, and curricular concentration.

In summary, while some of the correlates of quality isolated here support previous research, these overall results differ from the extant literature in several important ways. First, these findings suggest that the strength of some key correlates found in previous research may be overstated. Second, these results suggest that several dimensions of quality rarely examined in previous research help to explain variation in departmental quality. In short, these findings indicate that departmental quality is more multidimensional than has been previously suggested—that multiple and diverse factors contribute to graduate departmental excellence.

How can the differences between these findings and previous research be explained? It might be that at least some of the differences lie in the measure of the dependent variable, departmental quality. Almost all previous studies have measured quality on the basis of departments identified

in reputational peer ratings. Since most faculty raters of departmental quality in reputational studies probably had little knowledge about the overall quality of the programs they were evaluating, it seems likely that their assessment of the quality of various departments was based principally on their judgment of faculty scholarly reputation and productivity. In turn, it does not seem surprising that previous studies have been able to isolate a small number of correlates—many related to faculty scholarly productivity and reputation—that explain much of the variation in quality.

In this study, however, the measure of departmental quality was extracted from the comprehensive reports of reviewers that were clearly aimed at judging overall departmental quality. Since these peer judgments were based on a broad base of information, it does not seem unusual that when factors previously found highly correlated with departmental quality were correlated with those peer judgments they did not have the same strength of association found in previous research. The fact that other important correlates and dimensions of quality were identified here may be due in part to the measure of the dependent variable as well as by the fact that these correlates had not been previously investigated.

A second explanation for many of the differences concerns the types of institutions in which departmental quality has been examined. As discussed earlier, previous research has focused on top-ranked departments in leading research institutions, while this study has examined departments in regional colleges and universities. It may be that the correlates of departmental quality are more multidimensional in regional colleges and universities.

Because the findings of this study raise telling questions about the limitations of the extant literature as applied to regional colleges and universities, the two major limitations of the study bear repeating. First, the sample was limited to those 45 departments out of a population of 110 departments for which sufficient data were available. Second, missing data reduced the number of variables examined to 73 from an original list of 164 variables and required procedures for estimating missing cases.

Several strengths of the study deserve mention. Since judgments about departmental quality were based on well-informed peer judgments, the measure of the dependent variable seems to be a more defensible measure than the reputational peer ratings used in previous studies. Moreover, the study explored a larger number and a greater range of potential correlates than in any previous study of the quantitative correlates of quality.

In conclusion, the findings reported here strongly suggest that the factors associated with departmental quality are more multidimensional in regional colleges and universities than in departments at leading research universities. While the study provides a foundation for estimating quality on the basis of quantitative correlates, further research is needed to identify additional quantitative correlates that can help to explain more fully

variation in departmental quality. Moreover, future research should examine a wider range of departments at the associate and baccalaureate degree levels as well as the graduate level. As this study compellingly suggests, there is a clear need for additional research on the correlates of departmental quality.

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