Research Note: Dimensions of Program Quality in Regional Universities

Denise L. Young
Florida Board of Regents

Robert T. Blackburn
University of Michigan

and

Clifton F. Conrad
University of Arizona

This study replicated and extended research by Conrad and Blackburn on program quality in regional universities. The sample doubled the number of departments, increased the number of institutions and programs, and added an additional state, for a total of three states in this study. The same general variables emerged as the strongest predictors, but strengths were lower. When "state" did not load in the regression analysis, the inference was that generalizability is warranted.

Nearly all of the research on program quality in higher education has been conducted on doctoral departments in highly reputed research universities. An exception is a recent study by Conrad and Blackburn (1985). They determined correlates of program quality for MA departments in regional universities. Not surprisingly, faculty attributes and productivity correlated with program quality, but to a lesser extent ($R^2 = .28$). In contrast, Hagstrom (1971) and others have accounted for more than 75% of the variance of PhD program quality with the faculty dimensions alone. Conrad and Blackburn had to introduce student, program, and facilities variables to increase predictive power but still could not approach the variance levels found for doctoral programs in research universities. Regional institutions simply do not have the visibility, and hence the reputational component, that predicts program quality at research universities. For the majority of higher education programs in this country, quality is a more complex phenomenon.

There are, however, limitations to the Conrad and Blackburn study. They started with 110 programs in 22 institutions; missing data reduced their final analyses to 45 programs in 14 institutions. These covered five different departments: English, mathematics, chemistry, history, and education. That the universities were in but two contiguous states in the South also endangers generalization of their findings.

The current study extended the number of departments by adding more and diverse programs from the same institutions and by including more universities, within the Conrad and Blackburn states as well as in an entire different state. The social makeup and higher education system of the new state is appreciably different from the other two.

This research note displays the new findings and discusses their implications.

Results

The dependent variable, program quality, was derived from the quantification of experts' program reviews. This "score" represents the education team's overall impression of the quality of the program in terms of its faculty, student body, facilities, program, and support. (See Conrad & Blackburn, 1985, for a detailed explanation.) Although these primarily regional universities may differ less from one another *in the aggregate* than did the research universities analyzed by Hagstrom and others, their departments/programs (the unit of analysis) were rated over the entire range—from excellent to a recommendation for closure. The dependent variable has good variance.

The same six cluster variables that emerged in the Conrad and Blackburn study were the strongest predictors in this expanded study. These variables were the following:

Curricular Content

This variable, expressed as the number of undergraduate and graduate programs in the sciences, was an indicator of the research and hard sciences orientations of the institutions.

Local

This variable was expressed as the percentage of faculties' highest degrees granted at institutions from within the state and as the percentage of faculties' highest degrees granted at institutions within Southern Regional Educational Board states. "Inbreeding," or faculties with degrees from "local" institutions, is considered a positive attribute at elite institutions but a liability at other types of institutions.

Scholarly Productivity

This cluster variable includes several measures of publication productivity: publishing rate of faculty (percentage with four or more), publications

in the last 5 years, mean publications from 1974 to 1979, publications average from 1968 to 1973, mean yearly publication rate for the last 5 years, mean number of book reviews in the last 5 years, and mean number of conference papers in the last 5 years. High publication rates, especially current publications, correlate with high quality in the reputational studies.

Scope

This cluster includes the total number of baccalaureate degree programs, total number of masters degree programs, and total number of doctoral degree programs. This set of variables measures the breadth of programs and the mix of degrees; it is an indirect indicator of size. Larger departments receive higher ratings in reputational studies of doctoral programs.

Library

The number of holdings is also an indirect indicator of the research capabilities and size. This measure does not evaluate the quality of holdings; however, a large number of holdings is more likely to include a wide range and diverse mix of publications.

Youth

These measures include the percentage of faculty under age 40 and the percentage of faculty without tenure. These variables are indicators of inexperience which, it is hypothesized, may detract from program quality. Ratings of doctoral programs find positive quality correlates for senior, tenured faculty.

For the most part the strength of this study's relationships is weaker, as can be seen in Table 1, which displays the correlations found in both studies. Again, contrary to the studies of research university PhD departments, both local and younger faculty correlate positively rather than negatively.

As in the previous study, when the six cluster variables are entered in a

TABLE 1
Pearson correlations between program quality and cluster variables

Cluster variables	This study	Conrad & Blackburn
Curricular content	.25*	.46**–.54**
Local	.09	.23–.27
Scholarly productivity	.23*	.10–.36
Scope	.03	.09–.17
Library	.07	.15
Youth	.12	.23

$*p < .05.$
$**p < .01.$

stepwise regression, scholarly productivity and curricular content have the highest loadings. Their R^2s, however, are small, even lower than the values Conrad and Blackburn obtained (although they did not have enough cases for a regression analysis). See Table 2.

Finally, the "state" dummy variables were put into the stepwise regression program with an option to enter. None of the state variables entered the equation. It is concluded that, although the states differed in some ways (e.g., percentage of faculty over 40 years of age), the states did not differ significantly.

One important aspect of this study is the nonselection of the variable state in the stepwise regression of the 36 independent variables on program quality. Although all three state systems consist of regional institutions, two states are considered southern, whereas the third state is not identified as such. Before adding the third state, the sample was restricted to the South and had much less potential for generalizability. The addition of a non-southern state that does not vary in a statistically significant way from the southern states allows broader interpretation of the results.

Conclusions

Despite some obvious limitations, this research represents progress in the assessment of program quality. When this study expanded on the Conrad and Blackburn study by adding disciplines and increasing the number of institutions, the same variables emerged as the highest correlates of program quality. Nor did these results vary by state. It was found that although scholarly productivity is the greatest predictor of program quality, the relationship is not a strong one. This indicates that traditional indicators of quality may be valid, but they carry a different weight at regional institutions. For example, scholarly activity, an important aspect of quality at all universities, seems to be of greater importance (weight) at elite institutions.

The correlations of this study were slightly lower than those reported for the Conrad and Blackburn study. This means that their reported relation-

TABLE 2
Stepwise regression with program quality

| | | 6 combined variables and DQUAL | | |
| | | This study | | Conrad and Blackburn |
Step no.		R	R^2	R^2
1	Scholarly productivity	.31*	.10	.28
2	Curricular content	.39*	.15	.31*

* $p < .05$.

ships were an overestimate of the true correlates of program quality. The larger sample shows greater heterogeneity than was found earlier. Finding a more accurate estimate of the variable relationship, however, does not solve the basic problem of ascertaining program quality in regional institutions. Future research should continue to further define program quality, particularly its multifaceted nature in regional institutions.

References

Conrad, C., & Blackburn, R. T. (1985). Correlates of departmental quality in regional colleges and universities. *American Educational Research Journal, 22,* 279–295.

Hagstrom, W. O. (1971). Inputs, outputs and the prestige of university science departments. *Sociology of Education, 44,* 375–397.

Authors

DENISE L. YOUNG, Program Review Associate, Florida Board of Regents, Tallahassee, FL 32301. *Specialization:* academic programs.

ROBERT T. BLACKBURN, Professor, Center for the Study of Higher Education, University of Michigan, Ann Arbor, MI 48109. *Specialization:* faculty career patterns.

CLIFTON F. CONRAD, Professor of Higher Education and Associate Dean for Academic Affairs, College of Education, University of Arizona, Tucson, AZ 85721. *Specialization:* curriculum in higher education.