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**ABSTRACT**

Forty private colleges that experienced rapid revenue decline from 1973 to 1976 were assessed in relation to factors accounting for recovery from financial decline. One subset of the 40 colleges showed dramatic recovery in total revenues during 1976 to 1979; the other continued to decline. These groups are compared, using data from the Higher Education General Information Survey (HEGIS). Attention is directed to financial characteristics, variables that are less subject to management (such as age, size, location, and selectivity), and those that are more subject to management (such as programs offered, revenue configurations, and expenditure pattern). Typically, colleges that made a dramatic recovery were small, young, nonselective liberal arts colleges that added a few two-year programs, catered to part-time students, emphasized instruction, and had relatively few revenue sources. Those that continued to decline were large at first, fairly selective, liberal arts and comprehensive colleges in rural areas. They did not add degree levels, but did tend to offer levels other than the baccalaureate. They also added masters programs, enrolled almost entirely full-time students, and spent a decreasing proportion of their budgets for instructional purposes. If common ideas about vulnerability to decline are accurate, these results suggest that a less vulnerable institution that finally succumbs to decline is exceptionally resistant to recovery, or different factors contribute to experiencing rapid decline than to recovering from it. Directions for further study are suggested. (Author/SW)

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Environmental Decline  
and Strategic Decisionmaking

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# Association for the Study of Higher Education

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# Environmental Decline and Strategic Decisionmaking

Ellen Earle Chaffee

## ABSTRACT

What accounts for recovery from financial decline in private colleges? To what extent can management decisions effect favorable outcomes? Is it more useful to consolidate around the traditional mission, or to accomodate diverse demands?

From among 40 private colleges that experienced rapid revenue decline from 1973 to 1976, two subsets were selected. One showed dramatic recovery in total revenues during 1976 to 1979; the other continued to decline. These groups are compared, using HEGIS data, on financial characteristics, variables that are less subject to management (such as age, size, location, and selectivity), and those that are more subject to management (such as programs offered, revenue configurations, and expenditure pattern).

Typically, colleges that made a dramatic recovery were small, young, non-selective liberal arts colleges that added a few two-year programs, catered to part-time students, emphasized instruction, and had relatively few revenue sources. Those that continued to decline were large at first, fairly selective, liberal arts and comprehensive colleges in rural areas. If common ideas about vulnerability to decline are accurate, these results suggest (a) that a less vulnerable institution that finally succumbs to decline is exceptionally resistant to recovery, or (b) different factors contribute to experiencing rapid decline than to recovering from it.

ENVIRONMENTAL DECLINE  
AND STRATEGIC DECISIONMAKING

During the 1970s, private higher education's share of the student enrollment market slipped from 25% to 20%. New public colleges opened at the rate of 1.43 schools for each public college that closed or merged, while only .24 new private colleges opened for each one that closed, merged, or changed control. Over 8% of a large sample of private college presidents predicted in 1979 that their college would have closed, merged, or shifted control by 1985-86. Nearly half of those presidents led less selective liberal arts colleges (Carnegie Council, 1980). Despite unprecedented growth in higher education during the 1960s, by 1971 Earl Cheit had written a book about actual and impending severe stress that amounted to what he called The New Depression in Higher Education. Given oil embargos, high inflation, out-migration, and projected decline in the population of typical college students--and despite critical federal assistance in the form of educational loans to students--the 1970s have proven to be a decade of adjustment to no growth and pockets of decline, with private institutions generally harder hit than public institutions.

The prospects for the future are worse than extrapolation from the 1970s trends. The Carnegie Council's Three Thousand Futures portrays a collective future so hostile that colleges and universities are all categorized in terms of their level of vulnerability, not their level of success or growth. Only ten of the 700 "most vulnerable" institutions are public (1980, 61). The trends envisioned in the book include the rise of the public sector, at the expense of the private

sector except for the most prestigious and selective institutions, and the supremacy of the market in dictating conditions for institutional survival. In addition to being private, existing research and professional judgments suggest that the colleges that have been and will continue to be most vulnerable to decline are small, less selective, single sex, liberal arts, or located in rural areas (Carnegie Council 1977, 1980, and Mayhew 1979).

The role of management. The literature on managing higher education institutions in such times contains two countervailing themes. One is the determinacy of uncontrollable forces. From student demand for programs to major shifts in federal student aid policy, such forces are projected and their impact assessed virtually as if institutions lay helplessly passive in their path. On the other hand, Cheit found that one of the four major results of financial stringency ten years ago was acceptance of the idea of the managed university (1973, 64). He found that three-fourths of the presidents had developed an overall strategy for dealing with decline and that things had generally improved in the institutions he studied. Furthermore, it is not uncommon to find inferences that institutions are capable of learning--that those which coped with adversity before will be in a better position to do so again (Zammuto, 1982). The implication of such statements is that collegiate administrators are not helpless or passive--that they have strategies or coping skills that effectively mediate the impact of decline. So far, however, the literature rarely separates that which is determinant from that which is not, nor that which constitutes useful intervention from that which does not.

A second set of incongruous themes also relates to college management in a declining environment. Some authors advise that a college consolidate around its mission (Mayhew, 1979) while others promote flexibility, diversity, and variety in the quest for a stable and viable match between the organization and its environment. Most of the strategic planning literature, borrowed from business and currently popular reading in higher education, implicitly or explicitly adopts this perspective--see, for example, Kotler and Murphy, 1981, Cope, 1981, or Shirley, 1979. The literature on organizational response to crisis often identifies maladaptive organizational management responses such as restricting their domain (Bozeman and Slusher, 1979), invoking normal responses, failing to challenge their own assumptions, failing to experiment with strategies, and retaining top management personnel (Starbuck, Greve, and Hedberg, 1978). These points, too, suggest that organizations should, at a minimum, have sufficient flexibility to consider innovative, varied solutions to crisis situations.

The disadvantage of consolidation, of centering on key features of institutional identity, is the risk that too few people will be interested in that identity to support it. A college might be doing what it does exceptionally well, but only until the students stop coming and the money runs out. The saying in business is that it is more important to do the right things than to do things right. The issue in higher education is, who determines what things the college should be doing--the faculty or the students? As the Carnegie Council put it,

Some of the drama of the next two decades will center around the natural and strong efforts of many within the academic community and particularly among faculty members, to hold on to what they cherish most from the past, and the necessity, felt more

strongly by administrators and trustees, to adapt to the new realities of the student market. (1980, 31)

One disadvantage of diversifying and remaining flexible, changing as the environment changes, is that one risks losing all sense of purpose and principle. This risk is minimized to the extent that the college knows its outer limits and is creative in defining environmental demand in terms that are compatible with what the college is equipped to do. A more serious liability, from the perspective of one theme in organizational theory, is the possibility that each institutional shift will create, abandon, or affect a strategic constituency—a set of people who provide critical resources to the organization and whose continuing satisfaction is therefore relevant to collegiate well-being. Although the high ambiguity of education institutions enables them to satisfy multiple, conflicting demands from constituents (see, for example, Weick, 1976 and Cohen and March, 1974), surely there is some limit on the number, diversity, and change in strategic constituents that can be handled by a single organization in a given period of time.

The first of these two issues, whether or to what extent management may be a sufficiently potent force to restore institutional health, remains primarily an unstated, unrealized, and—in some contexts—unrealistic assumption in most of the higher education literature on decline. The second issue is the subject of strong statements on either side, but rarely is the issue joined. A leading spokesperson for consolidation, Lewis B. Mayhew, wrote, "The best base for continued vitality is to continue to serve a traditional mission but with greater attention to details and refinement of technique" (1979, 303). A contrasting view that argues for flexibility and that



also illustrates the propensity to assume that management can make a difference is provided by Jonsen, Bogue, and Chambers: "The best guarantees of survival remain (1) capable institutional management, (2) program flexibility to respond to new needs, (3) a sound fiscal base, and (4) the good fortune to be located in a [growing] part of the country. . . ." (1981, 316).

Recovery from decline. The past and projected conditions of decline, their disproportionate effect on private colleges, the ambiguity of management's capability to mediate those effects, and the disparity in recommended management solutions combine to suggest the research question for this study:

What accounts for recovery from decline in private colleges?

In order to have at least a modest amount of control for unmeasured factors, the population for the study was restricted to focus on four-year colleges with at least 650 students that experienced severe revenue decline between 1973 and 1976. Those years were generally hard on private colleges, but the three years that followed were a period of stabilization for them (Zammuto, 1982). Most of the hardest hit colleges did stabilize their condition, but a few of them showed dramatic recovery, while some others continued to decline at a slower rate than the previous period. Comparing these two subsets allows inspection of how institutions that are able to make a dramatic turnaround in their situation differ from those that are not able to do so.

We are interested in exploring recovery from the perspective of the two sets of paradoxical themes outlined above. To what extent is

recovery a matter of fate, and to what extent is it managed? Is it achieved by consolidation or by diversification and flexibility?

### Research Method

The complete research design calls for preliminary analysis of quantitative data, followed by site visits and qualitative analysis. This report covers only the first stage and should be taken as an interim report of tentative findings. What we have learned here will be used as lines of inquiry to be confirmed, expanded, modified, or discarded as appropriate to the case study findings.

Quantitative analysis reported here consists of descriptive comparisons among a group of forty colleges and two subgroups of the forty. The larger group is all private comprehensive and liberal arts colleges with enrollments of 650 or more in 1979 that experienced rapid revenue decline between 1973 and 1976. Rapid revenue decline was measured as Zammuto (1982) describes in some detail. Colleges in rapid decline experienced no years of growth in total revenues (adjusted for inflation using the Higher Education Price Index) during the period. The minimum four-year decline in total revenues was at least six percent; the average four-year decline was 29 percent.

The two subgroups are the set that made the most dramatic recovery from decline (R) and those that continued to decline (N) from 1976 to 1979. Group R is composed of all colleges within the group of forty that had at least 25% revenue improvement, or

$$\frac{1979 \text{ revenue} - 1976 \text{ revenue}}{1976 \text{ revenue}} \geq 25\%$$

Each member of group N scored less than or equal to -6% on the same measure. Nine of the forty colleges recovered, and nine continued to decline.

All data for this portion of the study were taken from the Higher Education General Information Survey (HEGIS). Following sample identification, data focused on the years 1972-3 and 1979-80.

Variables that are less subject to management. Working from the characteristics that are most often listed in the higher education literature in connection with decline, the first set of variables includes size, selectivity, sex, type, location, and control. Based on the strategic planning point of view, we added one more variable that is not subject to management--age. Our rationale was that older institutions may carry more numerous and more weighty traditions and norms, and therefore they may be less flexible. Although few of these variables are immune to management decision, changing any of these dimensions would require both huge investments of organizational energy and considerable time between implementation and goal achievement. This is not to say that these are all of the forces that could prove deterministic to institutional fortune--they are simply the ones that are available for measurement and related to much of the previous literature.

Size is measured as full-time equivalent (FTE) student enrollment. Selectivity, always subject to measurement dispute, is suggested from two sources. First, Cass and Birnbaum (1977) have rated some 500 colleges, and their ratings were used when available. Second, the Carnegie classification system provides a dichotomous selectivity score

for comprehensive and liberal arts colleges. Category I is more selective than category II.

Sex of institution was reported to HEGIS by the school. In some cases, a school for women may enroll men, or the reverse, but this variable was taken from the school's report of mission rather than from its enrollment distribution.

Institutional type is defined by Carnegie classification: comprehensive I or II and liberal arts I or II. These categories include all four-year colleges that offer limited or no graduate study, none of it at the doctoral level.

The location variable has two dimensions. Region is aggregated to four categories--North Atlantic, Lakes and Plains, Southeast, and West-Southwest--because these categories were sufficient to show variations in this small sample. Setting is identified by census categories, with eight groups ranging from rural to inside a city of two million or more.

Control is independent, Protestant, or Roman Catholic. No non-Christian sectarian schools are represented in the group of forty. Roman Catholic schools are shown separately because they are sometimes thought to be more vulnerable than other sectarian colleges.

Age is measured simply as years of existence. It was calculated by subtracting the date of founding from 1982.

Variables that are more subject to management. The primary areas in which management decisions could be made--decisions that could have the cumulative effect either of consolidating around the mission or achieving flexibility and diversity--are programs, students, and finances. To consolidate, selected programs could be strengthened

while others are dropped, recruiting and retention efforts could be intensified but otherwise unchanged, and broad patterns of financial support and allocation would remain unchanged. To achieve flexibility and diversity, new programs could be added; new kinds of students sought through recruiting, program changes, or technical changes such as course scheduling; and financial support could be solicited from new sources and expended in new ways.

The program variables are counts--the number of programs a school offers at the baccalaureate, masters, and two-year levels. Since these are primarily four-year colleges, we are also interested in the dichotomous variable, whether or not the college offers masters or two-year programs. At this point, we are making the tenuous assumption that more numerous programs is equivalent to more diverse programs--an inference that the case studies will address.

The primary student variable that was accessible for this part of the study was the rate of part-time enrollment, which we measured by dividing the number of FTE students into the total number of students (head count), thereby developing an index of part-time study for the school. This variable allows examination of the extent to which the school has tapped a market that was largely ignored prior to the projected decline of the traditional undergraduate population--employed or otherwise occupied, usually adult learners. Secondly, and more valid for this set of colleges than it would have been for research universities that are less dependent on students as their critical market, is the ratio of expenditures for instruction to total educational and general (E&G) expenditures. This variable is intended to reveal something about the relative emphasis of the college on

satisfying its student market--however, colleges that engage in research are systematically and probably unjustifiably handicapped by it.

Common sense and collegiate lore say that the broader the financial base, the better the college is able to withstand adversity. For example, the more funding sources it has, the less it is presumed affected by erosion of any one source. Therefore, the less dependent it is on tuition, the better--especially in four-year private colleges that typically are more dependent on tuition than any other class. The measures of revenue and expenditure diversity are (1) tuition revenue as a proportion of total revenue, (2) whether the college receives federal or state appropriations, (3) the number of sources of revenue for the college, (4) whether the college expends funds for public service, and (5) whether it expends funds for research.

### Results

The data in table 1 show characteristics of the large group and each of the two subgroups, recoverers (R) and non-recoverers (N). On average, from 1973 to 1976 both R and N experienced greater loss of total revenues than did the entire group of rapidly declining colleges. The rate of recovery for R was more than triple that of the large group, while N continued to experience revenue decline--but at a rate far smaller than that for the previous period. In a sense, all three groups improved over 1973 to 1976. However, R made a dramatic recovery with sizable gains, while N was only able to slow down the rate at which it was losing ground.

TABLE 1

## CHARACTERISTICS OF THE COLLEGES

	Rapid Decline Group (N = 40)	Recovery Group (N = 9)	Non-recovery Group (N = 9)
Change in adjusted total revenues			
. 1973 to 1976	(19.9%)	(24.4%)	(23.0%)
. 1976 to 1979	11.1%	34.1%	( 8.5%)
Change in student FTE enrollment			
. 1973 to 1976	(20.2%)	(20.2%)	(18.8%)
. 1976 to 1979	9.8%	39.6%	( 7.9%)
Expenditure per student			
. in 1973	\$3472	\$3292	\$4391
. in 1980	\$5718	\$5020	\$6780
. 1980, adusted	\$3430	\$3011	\$4067
. ratio of 1980 (adjusted) to 1973	.988	.914	.926

As one might expect, these colleges also experienced loss of student FTEs in 1973 to 1976. Losses for all three groups were roughly equivalent at 19-20%. The enrollment recovery patterns for 1976 to 1979 are comparable to the revenue patterns for the period, with R almost quadrupling the improvement rate of the total group and N continuing to decline.

Finally, the data show that all groups spent less per student in the second period than they had in the first, but both R and N tightened their financial belts more than did the total group of forty. The index for the total group, after 1980 expenditures are adjusted for inflation, is .99, while the other two groups are at about .92. The R group decreased its expenditure per student slightly more than did N, but much cannot be made of this due to the small number of institutions involved. Furthermore, R apparently was not previously profligate; if these schools had been spending large amounts per student, one might suspect that they had recovered just by becoming less extravagant. On the contrary, R spent less per student in 1973 than did the total group, while N spent far more, on average. There are reasons for this other than extravagance, such as having more expensive programs or more active research programs. At this point, the only defensible observation is that R seems not to have had the advantage of more than typical amounts of financial slack.

Behavior of the three groups on variables that cannot readily be controlled by management is outlined in table 2. The average size of the total group is well over the 1000 FTE minimum efficient size proposed by many in higher education, even after a 12% decline in the seven years of the study. Contrary to the expected value of that



TABLE 2

## VARIABLES LESS SUBJECT TO MANAGEMENT

	Rapid Decline Group (N = 46)		Recovery Group (N = 9)		Non-recovery Group (N = 9)	
	1973	1980	1973	1980	1973	1980
<u>Size</u>						
. FTE enrollment	1497	1317	921	1064	1662	1254
. change in FTE		(12%)		16%		(25%)
. enrollment group						
650-999	11	11	6	3	2	4
1000-2499	25	26	3	6	6	5
2500-4999	4	2	0	0	1	0
5000-9999	0	1	0	0	0	0
<u>Selectivity</u>						
. rating (1 = low)						
missing		27		7		3
1		9		2		3
2		3		0		2
3		1		0		1
. Carnegie (II = low)						
II	28	30	8	9	4	4
I	12	10	1	0	5	5
<u>Sex</u>						
. female	3	3	2	2	0	0
<u>Type</u>						
. Comprehensive I	5	5	0	0	0	1
. Comprehensive II	6	6	0	1	2	2
. Liberal Arts I	7	5	1	0	5	4
. Liberal Arts II	22	24	8	8	2	2
<u>Location</u>						
. Region						
North Atlantic		13		3		2
Lakes and Plains		16		2		6
Southeast		7		2		1
West/Southwest		4		2		0

TABLE 2 - Continued

VARIABLES LESS SUBJECT TO MANAGEMENT

	Rapid Decline Group (N = 40)		Recovery Group (N = 9)		Non-recovery Group (N = 9)	
	1973	1980	1973	1980	1973	1980
<u>Location - continued</u>						
. Setting						
Rural		15		3		5
Under 250,000		6		1		0
Up to 500,000		6		0		2
Up to 1 million		4		1		1
1-2 million, out of city		1		0		0
1-2 million, in city		2		1		0
Over 2 million, out of city		3		2		0
Over 2 million, in city		3		1		1
<u>Control</u>						
. Independent		20		5		5
. Protestant		18		3		4
. Roman Catholic		2		1		0
<u>Age (mean)</u>		87.5		51.7		105.9

minimum size, however, R was (a) on average only 921 strong in 1973 with two-thirds of its members having fewer than 1000 FTE and (b) much smaller than N. By 1980, R had crossed the 1000 threshold, both in average size and in majority of institutions. Many small colleges, including all of them with fewer than 650 FTE students in 1979, are excluded from this analysis, so one cannot generalize too far from these results. It does appear that enrolling fewer than 1000 students was not a disadvantage in attempting to recover from financial decline.

Only thirteen of the forty colleges were ranked by Cass and Birnbaum (1977). On a scale of 1 to 5, the highest level of selectivity achieved in this group was a 3, with nine of the 13 schools ranking the lowest, 1. Against all odds and against all predictions of what kinds of schools are more vulnerable to adversity, nearly half of the ranked colleges fell in the N group. The missing values from Cass and Birnbaum's rankings are more likely to be biased in support of this conclusion than against it; that is, they are more likely to have missed less selective colleges than more selective ones. Furthermore, the dichotomous selectivity measure from the Carnegie classifications also supports this conclusion. Over half (5) of the N schools were in the more selective Carnegie class. Only one of the R schools was in that class in 1973, and it had moved to less selectivity by 1980. It may be true that the more selective schools are less likely to run into adversity, but among these schools if they did have trouble, they were less likely to recover from it than were less selective schools.

More than a few single sex schools considered changing or did change to coeducation during the 1970s (Anderson, 1977). Their behavior was compatible with the notion that the larger a school's

market is, the more likely it is to get a certain (desirably large) number of students. Enrolling one sex can be seen as an unnecessary limitation that excludes some 50% of one's potential market. However, these single sex institutions were not at a disadvantage. Of the three women's colleges in the large group, two were present in R, none in N.

Institutional type is a function of the kind and dispersion of programs and of selectivity. Of the two classes in this study, the more varied programs are offered in the comprehensive category, while the more selective schools are in category I. In R, one school became less selective in the seven-year period, while another moved from liberal arts to comprehensive. In N, two schools became less selective, one of them also shifting from liberal arts to comprehensive. Although comprehensive schools did not appear in the total group as often as liberal arts schools, they are found disproportionately in N. Liberal arts schools were unusually likely to recover.

The data on institutional location follow what one would expect, based on shifts in regional populations. The North Atlantic and Lakes and Plains regions are heavily represented in the total group and in N. Nonetheless, the growing regions--Southeast and West-Southwest--do not fully account for the recovering group. In fact, more than half of R is located in the Midwest and Northeast.

The forty-member group is predominantly rural, with 38% in outlying areas and another 30% in cities and towns of less than .5 million. A slightly greater proportion is rural in N than is true of the total group, and a slightly greater proportion in R is from inside or near cities of two million or more than is true of the total group.

Overall, a slight bias appears to favor being located in more populous areas.

Whether the college is independent, Protestant, or Roman Catholic makes little difference in recovery for this set of schools. These Roman Catholic colleges were not at a disadvantage in their recovery rate, inasmuch as 50% (one of the two) recovered.

Perhaps one of the most striking results of this part of the study is the mean age of each set of schools. They are, on average, old, well-established institutions with a mean age of 87.5. But those that recovered, R, were a youthful 52, while the N group averaged nearly 106. Only two of the nine recovering schools had a three-digit age. With those two excluded, the mean age of other R schools is only 30 years. By contrast, only two of the N group had a two-digit age. Excluding them, the mean age of N climbs to 125 years. For undetermined reasons, younger schools were far more likely to recover from decline than older schools.

The final set of data in this stage of the study deals with variables that are more subject to management control than is the preceding set. The results are shown in table 3. In the area of academic programs offered by the schools, each of the three groups offered an average of ten to eleven baccalaureate programs in 1973 and each increased its average number by 1980. Differences among the groups are more dramatic when programs at all levels--baccalaureate, masters, and two-year--are combined. The recovering group offered fewer programs than either of the other two groups in 1973, and the difference became more pronounced by 1980. The major changes that

TABLE 3

## VARIABLES MORE SUBJECT TO MANAGEMENT

	Rapid Decline Group (N = 40)		Recovery Group (N = 9)		Non-recovery Group (N = 9)	
	1973	1980	1973	1980	1973	1980
<u>Programs</u>						
. mean number at baccalaureate all levels	10.8 12.5	12.4 15.2	10.1 11.4	11.2 13.9	10.9 12.2	13.0 16.1
. number colleges with masters	13	13	1	1	3	3
. two-year	9	21	3	6	3	4
. mean number of programs (if level is offered)						
masters	3.8	5.2	6	9	3	5.8
two-year	1.8	2.2	2	2.5	1	1.2
. mean number of new programs, 1973-1980, total group		2.7		2.4		3.9
<u>Students</u>						
. part time index	1.18	1.20	1.24	1.25	1.06	1.07
. instruction's share of E&G expenditures	46.7	38.5	46.1	43.0	46.0	36.8
<u>Finances</u>						
. tuition's share of total revenue	73.2	66.3	71.4	69.6	73.0	71.1
. number that get fed/state approp.	21	10	4	1	4	3
. mean number of revenue sources	8.17	8.65	7.11	7.56	9.11	9.44
. number that spend for public service	6	13	1	2	1	4
. number that spend for research	11	12	1	0	5	5

occurred and the major differences among groups were at the masters and two-year levels.

There was no change in the number of schools offering one or more masters programs. However, the number offering one or more two-year programs more than doubled in the total group--a rate of increase that was paralleled in R but not in N. All three groups did increase the number of masters programs, where coursework had already been offered at that level in 1973, but at approximately the same rate among groups. At the two-year level, R offered, on average, more programs in 1973 (although the number is still very small--about one two-year program per five baccalaureate programs) and a greater rate of increase in the number of programs by 1980. On average, but less so in N, the forty colleges appear to have added two-year programs where they did not previously exist and to add one or two to the repertoire of pre-existing two-year programs. They also added masters programs, but only if they already offered coursework at that level.

As the final variable in this section shows, the group rate of program addition was far greater for N than for either of the other two. In fact, R was slightly less likely to add programs than was the total group. What appears to account for the large number of additions in N is this: these schools were more likely to have masters programs than was R, and they were more likely to add masters programs than was the total group.

The two student variables deal with the relationship of the college to its primary market. The part-time index suggests the extent to which the college has expanded its market by enrolling part-time students. The indices show relatively little change from 1973 to 1980

in any of the groups, but the difference between R and N on this dimension is large. The rate of part-time attendance in R is higher than the mean for the total group and much higher than the rate for N. The emphasis on instruction as a proportion of total E&G expenditures was almost identical for all three groups in 1973, and it declined for all three by 1980. However, the average decline for R was less than half of that for the total group, while the average decline for N was larger than the total group mean. R was much better able to continue to devote proportionate resources toward the instruction of students than were either of the other groups.

In the area of financial management, relative dependence on tuition is one indication of revenue diversity--the higher tuition's share, the less diverse other sources of revenue can be in achieving a stable balance. On this measure, all forty schools scored high--over 70%, compared to an average in 1979 of about 50% for liberal arts colleges--suggesting that tuition dependence may have been a factor in the rapid revenue decline that qualified them for the study. However, relative dependence on tuition improved for all forty schools more than it did for either R or N, each of which experienced a slight improvement. R and N show major differences in two sources of revenue--federal or state appropriations and grant monies from any source. By 1980, N schools were much more likely to receive an appropriation than R schools. The N appropriations were from the state; R was from the federal government. The R schools received revenues from fewer sources than either of the other two groups, on average. As for expenditures, by 1980 not one of the nine R schools expended funds in the research category. The N schools, on the other



hand, did spend money for research. The N schools also became more likely to spend for public service in 1980 than they were in 1973. These costs probably were in connection with non-credit courses or community relations activities, another possible indication that the schools were conscious of, and seeking to please, their environment through diverse activities.

### Discussion

Typically, the colleges that made a dramatic recovery from revenue decline were small, young, non-selective liberal arts colleges that added a few two-year programs, catered to part-time students, emphasized instruction, and had relatively few revenue sources. Those that continued to decline were large at first, fairly selective, liberal arts and comprehensive colleges in rural areas. They did not add degree levels, but they did tend to offer levels other than the baccalaureate. They also added masters programs, enrolled almost entirely full-time students, and spent a decreasing proportion of their budgets for instructional purposes. On many dimensions, the non-recovering colleges are more typical of the total group of forty colleges than are those that recovered. As major exceptions to this generalization, the non-recovering colleges are more selective, less likely to add two-year programs, more likely to add masters programs, more likely to increase the total number of programs offered, and less likely to enroll part-time students than was the total group.

On the issue of whether management has the capacity to influence recovery, the data did show patterns of difference between the recovering and non-recovering groups on management variables. This

suggests that management may have some effect. Specifically, several ideas arose for further study:

1. Are smaller private liberal arts colleges unable to afford either research or graduate study, once they encounter serious financial problems?
2. Is there an upper limit on the rate or magnitude of feasible institutional change? On most dimensions, the R schools changed less than did the N schools. Yet common advice to retrenching institutions is to be bold (Mingle and Norris, 1981, 67).
3. Is diversity in clientele, or market, more advantageous than diversity of program?

Certain unmanageable factors are also important, however. Smallness and non-selectiveness were not intrinsically disadvantageous, in this set of schools, as might have been expected. A young institution is apparently more resilient, and location isn't everything. . . but it helps.

As for the question of focus versus variety, again the early evidence points both ways. Variety of degree levels and number of academic programs behaved as if focus is the mode of choice. So did change in number of academic programs. Similarly, the financial measures--both revenue and expenditure--do not support an argument for variety. The schools that improved tended to have fewer revenue sources and they tended not to expend funds for research or public service. The suggestions that these data offer for a strategy of variety are these: if you must have masters programs, have as many as

possible; increase your activity at the level of two-year programs; and enroll part-time students.

### Conclusions

In this early stage of the project, conclusions for practice and research are inappropriate. However, some key ideas for the next stage of the study have emerged.

We will want to look closely at the role of research, graduate study, and public service in these two sets of schools. Intrinsically valuable as these functions are, do they handicap an institution's recovery from severe financial distress? How are the programs of N and R different from each other? More data on characteristics of and changes in each school's student clientele will allow closer inspection of the possibility that a diverse student body is desirable. We need to know more about the schools that secured funds from state legislatures--are the differences between N and R on this dimension causes or effects? In other words, did the states bail out schools that would otherwise have sunk? Or is this difference one of bookkeeping? Or is state aid less helpful than one might predict? Further quantitative and qualitative analyses on such topics should shed light on the issues of management effectiveness and focus/variety that remain unresolved in this analysis.

On unintended product of the analysis so far is a tentative observation. If commonly held ideas about the characteristics that make an institution vulnerable to decline are accurate--and they certainly have face validity--then one of two conclusions can be drawn from our data. Either a less vulnerable institution that finally

succumbs to powerful hostile forces' is exceptionally resistant to recovery, or different factors contribute to experiencing rapid decline than to recovering from it. The first option is captured in the phrase, "The bigger they are, the harder they fall." The second provides hope for those who care about a declining institution--the factors that put them into that situation are not likely to be the same factors as those that would keep them there.

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