

DOCUMENT RESUME

ED 242 232

HE 017 038

AUTHOR Anderson, Richard E.
 TITLE Finance and Effectiveness: A Study of College Environments.
 INSTITUTION Educational Testing Service, Princeton, N.J.
 SPONS AGENCY Lilly Endowment, Inc., Indianapolis, Ind.
 PUB DATE Sep 83
 NOTE 193p.
 AVAILABLE FROM Educational Testing Service, College and University Programs, Princeton, NJ 08541 (\$8.00).
 PUB TYPE Reports Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
 DESCRIPTORS Check Lists; *College Environment; *Economic Factors; *Educational Finance; Enrollment Trends; Expenditures; *Financial Problems; Higher Education; Income; *Institutional Evaluation; Longitudinal Studies; School Surveys; *Teacher Attitudes; Trend Analysis
 IDENTIFIERS *Institutional Vitality

ABSTRACT

Results of a study of financial conditions and the functioning of 93 U.S. colleges and universities are presented. Institutional data were collected every third year between 1967-1968 and 1979-1980. Samples of faculty at each institution were surveyed in the late 1960s or early 1970s and again in 1980-1981. The Educational Testing Service's Institutional Functioning Inventory (IFI) was administered to the schools, and 13 colleges were visited. Results include the following: the average college had considerably more purchasing power at the close of the decade, but most of these resources had been used up by enrollment increases; the increase of federal funds was matched by declines in state support at public institutions and by declines in tuition and private gifts and grants at private colleges; and the decline in faculty pay in the 1970s matches almost exactly the increases in pay of the 1960s. Findings regarding changes in the higher education environment, indications of institutional effectiveness, and faculty perceptions are discussed, and recommendations for administrators and public officials are offered. An analysis of trends in educational demand and college income and expenditures is included as background information. Participating institutions are listed by Carnegie classification and IFI scale items are listed. (SW)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED242232

PS 1110 TH

Finance and Effectiveness: A Study of College Environments

"PERMISSION TO REPRODUCE THIS
MATERIAL IN MICROFICHE ONLY
HAS BEEN GRANTED BY

Richard E. Anderson

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.
Minor changes have been made to improve
reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

by **Richard E. Anderson**

Research for this report was carried out under a grant from the
Lilly Endowment.

Copies of this study may be ordered from College and University
Programs at Educational Testing Service, Princeton, New Jersey
08541. The price is \$8 plus postage. Editorial inquiries
concerning this study should be directed to Richard Anderson, Teachers
College, Columbia University, New York, New York 10027.

Copyright © 1983 by Educational Testing Service. All rights reserved.
Printed in the United States of America.

FINANCE AND EFFECTIVENESS:
A STUDY OF COLLEGE ENVIRONMENTS

Richard E. Anderson
September, 1983

Research supported by the Lilly Endowment

Acknowledgements

Many people have contributed to this study and the preparation of the report. Mike Suzor organized much of the data collection. Mike Cavanaugh assisted in the financial analyses. Rod Hartnett provided guidance on the use of the I/Fi. Bob Birnbaum and Wagner Thielens were good colleagues; they were appropriately supportive and critical as the occasion required. Debbie Inman began as administrative assistant to the project, but soon became a partner in the research effort. Her dedication and concern made the research more effective and pleasant. Stu Varden, Howie Spivak, and Janet Asteroff, as computer consultants, were effective liaisons between us and the room full of chips and wires. Nora Eisenberg provided essential editorial guidance. Nancy Beck was our friend at ETS, assisting us from conception of the project right through to publication. Of course, the project could not have been undertaken without support from the Lilly Endowment. Ralph Lundgren and Laura Bornholdt at the Lilly Endowment provided thoughtful comments and encouragement. Finally, we gratefully acknowledge the officers at the ninety-three colleges and universities who provided us with information and constructive criticism. All of the above people made the report possible. I trust that I have not let them down. All errors, both of omission and commission, are mine alone.

TABLE OF CONTENTS

EXECUTIVE SUMMARY AND RECOMMENDATIONS	1
1. THE STUDY	11
THE REPORT	13
THE COLLEGES AND THE INFORMATION THEY SUPPLIED	13
The Sample	13
Financial Data and Analyses	15
IFI Data	17
Summary	21
2. FINANCIAL TRENDS	23
DEMAND	24
Enrollment	24
Percent of Freshman Applications Accepted	24
Yield	26
SAT Scores	26
INCOME AND EXPENDITURES	33
Trends for the Full Sample	34
Public and Private Institutions	36
Public Institutions by Carnegie Classification	39
Private Institutions by Carnegie Classification	43
Salary Analysis	49
Maintenance and Operations	52
BALANCE SHEET ANALYSIS	56
WHAT HAPPENED IN THE SEVENTIES	60
3. CHANGES IN CAMPUS FUNCTIONING	63
SCALE SCORE CHANGES FOR ALL INSTITUTIONS	64
Measured Changes as Evidence of Validity	64
Responses to the Items	66
Intellectual-Aesthetic Extracurriculum	66
Freedom	67
Human Diversity	68
Concern for Improving Society	69
Concern for Undergraduate Learning	71
Democratic Governance	71
Meeting Local Needs	74
Self Study and Planning	74
Concern for Advancing Knowledge	74
Concern for Innovation	77
Institutional Esprit	78
PUBLIC AND PRIVATE INSTITUTIONS	79
Public Institutions by Carnegie Classification	82
Private Institutions by Carnegie Classification	87

Table of Contents

SUMMARY	94
4. OTHER FACULTY OPINIONS	97
RESULTS	97
Can Faculty Get \$500?	102
Support Services	103
Non-Financial Rewards of Faculty Membership	103
Outside Income	103
Are Faculty Leaving Academe?	104
Perceptions of College Financial Conditions	105
SUMMARY	105
5. RELATING CHANGING FINANCES TO FACULTY PERCEPTIONS	107
IFI RESULTS BY FINANCIAL GROUPINGS	109
Private Colleges	109
Public Colleges	110
MULTIVARIATE ANALYSES	116
The NCHEMS Model	116
Testing Other Models	117
SUMMARY	119
6. THE CAMPUS VISITS	121
SIX INSTITUTIONS	121
Muni Two-Year	122
Suburban Two-Year	126
City Two-Year	129
Mountain College	132
Plain College	135
Special University	138
SUMMARY	141
7. SUMMARY RESULTS	143
FINANCIAL RESULTS	143
Financial Operation	144
Capital Structure of Private Institutions	147
The Scramble for Students	148
THE CHANGES IN CAMPUS ENVIRONMENT	148
RESOURCES AND FACULTY PERCEPTIONS	150
SUCCESSFUL AND UNSUCCESSFUL COLLEGES	151
A. INSTITUTIONS BY CARNEGIE CLASSIFICATION	157
B. LISTING OF ITEMS BY SCALE	161

LIST OF CHARTS

Chart 2-1	Average FTE Enrollment	25
Chart 2-2	Average Percent Accepted Public Institutions	27
Chart 2-3	Average Percent Accepted Private Institutions	28
Chart 2-4	Average Yield Public Institutions	29
Chart 2-5	Average Yield Private Institutions	30
Chart 2-6	Average Entering SAT Scores Public Institutions	31
Chart 2-7	Average Entering SAT Scores Private Institutions	32
Chart 2-8	Income and Expenditures All Colleges and Universities	35
Chart 2-9	Income and Expenditures Public Colleges and Universities	37
Chart 2-10	Income and Expenditures Private Colleges and Universities	38
Chart 2-11	Income and Expenditures Public Research and Doctoral Universities	40
Chart 2-12	Income and Expenditures Public Comprehensive Universities	41
Chart 2-13	Income and Expenditures Public Two-Year Colleges	42
Chart 2-14	Income and Expenditures Private Research and Doctoral Universities	44
Chart 2-15	Income and Expenditures Private Comprehensive Universities	45
Chart 2-16	Income and Expenditures Private Liberal Arts Colleges I	46
Chart 2-17	Income and Expenditures Private Liberal Arts Colleges II	47
Chart 2-18	Income and Expenditures Private Two-Year Colleges	48
Chart 2-19	Average Faculty Salaries and Non-Farm Wages (In 1980 Dollars)	51
Chart 2-20	Average and Median Salaries of Selected Professional Groups (In 1980 Dollars)	53
Chart 2-21	Maintenance and Operating Expenditures Per \$1000 of Plant	55
Chart 2-22	Median Balance Sheet Ratios for Private Colleges	59
Chart 3-1	Changes on the Institutional Functioning Inventory All Colleges and Universities	65
Chart 3-2	Changes on the Institutional Functioning Inventory Public Colleges and Universities	80
Chart 3-3	Changes on the Institutional Functioning Inventory Private Colleges and Universities	81
Chart 3-4	Changes on the Institutional Functioning Inventory Public Research and Doctoral Universities	83
Chart 3-5	Changes on the Institutional Functioning Inventory Public Comprehensive Universities	84
Chart 3-6	Changes on the Institutional Functioning Inventory Public Two-Year Colleges	85
Chart 3-7	Changes on the Institutional Functioning Inventory Private Research and Doctoral Universities	88
Chart 3-8	Changes on the Institutional Functioning Inventory Private Comprehensive Universities	89

List of Charts

Chart 3-9	Changes on the Institutional Functioning Inventory Private Liberal Arts Colleges I	90
Chart 3-10	Changes on the Institutional Functioning Inventory Private Liberal Arts Colleges II	91
Chart 3-11	Changes on the Institutional Functioning Inventory Private Two-Year Colleges	92
Chart 5-1	Revenues Per Student at Hypothetical College	108
Chart 5-2	Changes on the Institutional Functioning Inventory Private Institutions with the Best Financial Trend	111
Chart 5-3	Changes on the Institutional Functioning Inventory Private Institutions with the Worst Financial Trend	112
Chart 5-4	Changes on the Institutional Functioning Inventory Public Institutions with the Best Financial Trends	114
Chart 5-5	Changes on the Institutional Functioning Inventory Public Institutions with the Worst Financial Trend	115
Chart 6-1	Changes on the Institutional Functioning Inventory Mini Two-Year College	123
Chart 6-2	Changes on the Institutional Functioning Inventory Suburban Two-Year College	128
Chart 6-3	Changes on the Institutional Functioning Inventory City Two-Year College	131
Chart 6-4	Changes on the Institutional Functioning Inventory Mountain College	134
Chart 6-5	Changes on the Institutional Functioning Inventory Plain College	137
Chart 6-6	Changes on the Institutional Functioning Inventory Special University	140

LIST OF TABLES

Table 1-1	Geographic Distribution of the Sample	15
Table 1-2	IFI Scale Definitions	17
Table 2-1	Peat Marwick, Mitchell & Co Balance Sheet Ratios	57
Table 3-1	Items on the Intellectual-Aesthetic Extracurriculum Scale for which Responses Changed at least 5 Percentiles	67
Table 3-2	Items on the Freedom Scale for which Responses Changed at least 5 Percentiles	68
Table 3-3	Items on the Human Diversity Scale for which Responses Changed at least 5 Percentiles	69
Table 3-4	Items on the Concern for Improvement of Society Scale for Which Responses Changed at least 5 Percentiles	70
Table 3-5	Items on the Concern for Undergraduate Learning Scale for Which Responses Changed at least 5 Percentiles	72
Table 3-6	Items on the Democratic Governance Scale for Which Responses Changed at least 5 Percentiles	73
Table 3-7	Items on the Meeting Local Needs Scale for Which Responses Changed at least 5 Percentiles	75
Table 3-8	Items on the Self-Study and Planning Scale for Which Responses Changed at least 5 Percentiles	76
Table 3-9	Items on the Concern for Advancing Knowledge Scale for Which Responses Changed at least 5 Percentiles	76
Table 3-10	Items on the Concern for Innovation Scale for Which Responses Changed at least 5 Percentiles	77
Table 3-11	Items on the Institutional Esprit Scale for Which Responses Changed at least 5 Percentiles	78
Table 3-12	Items Related to Disadvantaged Students at Private Liberal Art Colleges	93
Table 4-1	Local Option Questions	98
Table 5-1	Example of Financial Change Index	110
Table 5-2	Regression of the Weighted IFI Change Score Against Financial and Other Variables	118

EXECUTIVE SUMMARY AND RECOMMENDATIONS

In 1971, *The New Depression in Higher Education* was one of the first shots in what was to become a barrage of studies on college and university financial well-being. Later studies used larger samples, fund balance information supplemented current fund data as strategists borrowed methods from Wall Street, and multivariate statistics were added to the analytic artillery. In spite of these improvements, a fundamental problem remained -- the lack of satisfactory measures for evaluating institutional effectiveness. Unlike their Wall Street counterparts who count both investment and earnings in dollars, analysts of higher education must deal with such ambiguous and diverse output measures as student learning, the production of scholarship, and community service. Therefore these studies tend to focus simply on finances or use crude proxies for effectiveness like the number of degrees granted, counts of students attending, or the variety of programs offered.

In an attempt to expand the analysis of institutional financial health, we assembled a unique data base. A sample of ninety-three colleges and universities that had administered the Institutional Functioning Inventory to their faculty in the late 1960's or early 1970's re-administered the Inventory in 1980-81. The Institutional Functioning Inventory, with 132 items, measures campus climate on eleven scales including Concern for Improving Society, Concern for Undergraduate Instruction, Meeting Local Needs, Concern for Innovation, and Institutional Esprit. At the same time we collected financial, enrollment and personnel data for every third year between 1967-68 and 1979-80. After analyzing these data, we visited thirteen colleges, selecting most of the campuses because of results that were contrary to our expectations. For example, the IFI may have measured positive institutional development while financing or enrollments weakened. We visited other colleges because the opposite occurred -- faculty were increasingly dissatisfied, yet enrollments and income were growing.

FINANCIAL RESULTS

The financial analyses indicate that higher education fared reasonably well during the 1970's. Average educational and general income rose 44 percent beyond inflation between 1968 and 1980. On a per student basis, however, the total increase was only 10 percent--all of the growth occurring between 1968 and 1974. There were some modest variations by sector and Carnegie Classification but generally that pattern held. In sum, *the average college had considerably more purchasing power at the close of the decade but most of these resources had been used up by enrollment increases.* Over the period, Washington became a more important source of

Executive Summary and Recommendations

funds its share of educational and general income rising from six to nine percent. *The increase of federal funds was matched by declines in state support at public institutions and by declines in tuition and private gifts and grants at independent colleges and universities.* Local support for public community colleges fell sharply but was replaced by state funding.

Funding then has been moving away from the campus, and there is now the worrisome possibility that more decisions will be made by officials who are both geographically and educationally "out-of-touch." Moreover, federal, state, and local governments are increasingly facing resistance from taxpayers over the scope and tax burden of the various public enterprises. A challenge facing policy makers will be to replace the recently faltering public support with private funds. Individual and corporate gifts are potential sources of revenue but they are unlikely to be of significant magnitude. Tuition paid by students and their families has not increased as rapidly as consumer prices nor as rapidly as family disposable income. The financial resources of students and their families are a large potential source of funds for colleges and universities. Creative ways can be found to tap these resources. Tax incentives for families to save for education offer one approach. The popular Individual Retirement Account (IRA) should be explored as a possible mechanism for such incentives. In its present form, the IRA actually threatens college funding. Savers who currently use IRA's are likely to find when their children reach college age, the bulk of family savings locked into these accounts and the use of these funds for college expenses creating a tax liability. *But if higher education leaders and interested congressmen pursue the possibility of allowing parents to borrow from IRA's without tax penalties, the IRA could become a rich resource for higher education.*

Administration and general institutional expenditures received a larger share of the budget in 1980 than in 1968. Public institutions these days are spending slightly more on research and public service, particularly the latter. Private institutions devote more of their funds to student aid. In this analysis of budget percentages, the category of "instruction and departmental research" is on the losing end in both sectors. The cause is no secret. Faculty salaries have not risen as rapidly as prices during the 1970's. *The decline in faculty pay in the 1970's matches almost exactly the increases in pay of the 1960's. When faculty salaries are compared with other professionals, however, the decline in relative pay is severe.* Dentists, for example, earned about as much as faculty in 1940. By 1980 the average earnings by dentists was almost 175 percent higher than those of professors. One costless way in which college administrators can increase the income of faculty is to allow grants and contracts to pay "override" income to faculty. For example, a professor who receives a grant might write the budget to include a 15 or 20 percent salary supplement. At public institu-

Executive Summary and Recommendations

tions such a change may require system or even legislative approval. An impediment to such a policy is that it may be viewed as a form of institutionalized "double dipping" and therefore, politically awkward to initiate. However, public concern about the inadequacy of faculty salaries is rising and now may be an appropriate time to institute incentives like this. A potential drawback of this policy is that it might tip the balance of faculty activities from teaching to research. Bonuses to particularly effective teachers may be a desirable counter-weight.

Analysts have also expressed concern about the rising incidence of deferred maintenance. Although the percent of educational and general expenditures devoted to plant operation and maintenance has not changed appreciably, this percentage statistic is an inadequate indicator. One reason is that it fails to consider the amount of construction that has occurred in recent decades. "*Maintenance and plant operation*" expenditures per \$1000's of plant value declined 43 percent over the decade. Even this statistic may understate the magnitude of the problem. A larger percentage of recent maintenance and plant operation expenditures is devoted to fuel costs. Colleges like every other organization buying fuel, have been forced to pay much higher market prices. At some campuses, added expenditures for security have further diluted the maintenance and operations budget. Additionally, plant values have an historical basis. If plant replacement values were in the denominator, the ratio of expenditures to plant value would have shown an even greater decline. It is impossible to estimate how much of the drop in maintenance expenditures has been absorbed by improved efficiency or by reducing cosmetic activities -- cutting lawns less often, washing windows more infrequently, and similar savings. To the extent that the reduction in maintenance expenditures has created a backlog of necessary structural repairs, the physical plants of colleges and universities will deteriorate and major capital outlays will be necessary in the coming decades.

Conversations with campus officials as well as other data collected reveal that the *enrollments are being maintained by "scrambling."* The percent of applicants accepted, for example, has risen. The apparently liberalized admissions policies are especially noticeable at public and private Comprehensive Colleges and Universities and at Private Liberal Arts II colleges. In contrast to the percentage of students accepted, the matriculation "yields" from students offered admission are down, particularly at the public institutions. Average SAT scores for entering freshman are down for all categories of institutions, but the rate of change parallels the average score for all test takers. When campus officials discuss their concerns for their colleges, they typically mention enrollments and related issues first. These administrators are doing almost everything they can to make their institutions more attractive to students--to both traditional young adults as well as to area residents. *If academic accommodations are taken to extremes and sub-*

Executive Summary and Recommendations

vert the curriculum, then there will be cause for alarm. The results of the IFI, while not specifically addressing academic abuses, provide evidence that this competition for students may be causing some positive influences on educational processes and procedures.

CHANGES IN CAMPUS ENVIRONMENT

Changing faculty responses to the Institutional Functioning Inventory reveal several clear (and statistically significant) trends occurring during the decade. Most of these changes support commonly held perceptions about the current higher education environment. *Particularly noticeable is the increase in the continuing education efforts of these institutions.* In the early seventies two-thirds of the faculty responded that their campus had an adult education program. By 1981, almost 80 percent reported the existence of these programs. *Campus diversity has increased socio-economically but not politically.* Many more students of varying backgrounds and abilities are attending in the 1980s. Consequently there has been a large increase in the visibility of programs for disadvantaged students. These programs are only a part of the structural changes that have occurred to meet the needs of undergraduate students. Faculty responses indicate that *tenure and promotion are more likely to be based on teaching effectiveness.* These faculty also report that their colleagues are more concerned with "the best method to communicate knowledge to undergraduates" and with getting to know their students better.

Faculty perceive their colleges to be less democratically governed. According to the respondents, *administrators are making more of the decisions and involving students and faculty less than they did in the early 1970's.* Professors also perceive considerably less academic innovation, and in the 1980s the impetus behind new ideas is more likely to be financial. As college campuses have become more conservative the constituent groups also have exhibited less interest in improving society. Faculty note this reduced concern in themselves, in their students, and in the administrators and the trustees of the institutions.

The "scramble" for students has intruded upon the college environment. Colleges are not as free wheeling in the 1980's -- and probably not as much fun. In spite of the declines measured by the IFI, the colleges studied are functioning about as effectively as they did in the early seventies. The instruction of undergraduate students is receiving more attention. Disadvantaged students are more likely to get remedial work, and colleges are reaching out and offering their services more regularly to their neighbors.

The changes on the IFI scales were not uniform for all groups of in-

Executive Summary and Recommendations

stitutions. This is particularly noticeable in the public sector. *State supported universities--both the comprehensive regional ones and those with a major commitment to research and doctoral programs -- exhibited increases in almost all areas except Concern for Innovation. In contrast, the community colleges declined on four scales with the rest of the IFI indices remaining essentially unchanged.* Most of the faculty at these two-year institutions perceive themselves to be largely excluded from government. Morale has declined precipitously. The innovative character and willingness to experiment also appear greatly diminished at community colleges.

A comparison of the two sets of faculty surveys confirmed anecdotal reports about changes in American higher education. There has been, for example, greater emphasis on continuing education but otherwise less innovation. There have been changes in groups and in single institutions that are unexpected and startling and in many cases undesirable. It is important that deterioration of campus climate and capacities not be allowed to go unattended. True, the problems of balancing budgets, negotiating contracts, and settling legal claims are real and immediate, demanding administrative attention. The more ambiguous problems concerning campus climate and effectiveness, however, should not be simply relegated to mention at a college's annual convocation and then be set aside while the more clamorous problems are attended to, as is current custom. For after a while, the educational and environmental erosions can become so great as to be virtually irreversible. Regular surveys of faculty, students, and staff are one way to gather objective data about these changes. These data, of course, are not an end in themselves. They will often require further investigation and clarification. However, such surveys bring a sense of objectivity and immediacy to the issues and increase the likelihood that the problems will receive timely attention. *Administrators are urged to use surveys on a regular basis to assess campus climate.* The results should be discussed in committees with administrators and other relevant constituent groups with follow-up action as necessary.

The attempt to relate changes in the IFI with changes in institutional finance was almost totally unsuccessful. Several methods were tried and none showed any significant relationships. One reason for the absence of a correlation is that neither the financial nor the functioning measures are without problems. More important, however, is the fact that as financial problems develop, institutions and their faculties try harder. *This institutional mobilization acts as a buffer between finances and effectiveness. If enrollments begin to slip, for example, more attention is given to the instructional process and to continuing education programs. It would be foolish, of course, to assert that changes in available resources are not related to campus functioning and that extra effort can replace all lost funds. However, during the 1970's, it appears that other internal and ex-*

Executive Summary and Recommendations

ternal forces were more significant factors than finance in determining the campus environment.

SUCCESSFUL AND UNSUCCESSFUL COLLEGES

The most important finding to come from the college visits is that administrative leadership generally, presidential leadership specifically, is still an important force on many campuses. The thirteen institutions visited were not among the largest nor most prestigious institutions in the country. At these more modest colleges and universities, presidents have enormous influence on the campus environment and on institutional effectiveness.

Direct intrusion by presidents and other senior administrators was however quite limited. *High levels of democratic governance were especially noticeable in the most effectively managed institutions and were generally absent in the least effective institutions.* The relationship between effectiveness and democratic governance is attributed to the difficulty of measuring and evaluating college outcomes. If one cannot gauge the outcomes with some precision, it follows that it will be difficult to evaluate and control faculty. This is particularly true if tenure and collective bargaining agreements intrude in personnel policies. For an institution to be successful the faculty must be creative, energetic, and dedicated to their institution. Sustaining these qualities for a prolonged period of time is a monumental task and probably cannot be achieved through bureaucratic management. *If you cannot measure with reasonable accuracy what someone is doing, you cannot evaluate and control that individual with ordinary management techniques. Professors must believe in their institutions; they must assume a sense of proprietorship for their campuses. Democratic governance may be the best means by which to cultivate this "ownership" attitude.* For if faculty feel that the institution is theirs to govern, their energies will more likely be given to its best interests. This seems to be as true at community colleges as it is at four-year institutions. *The level of institutional financial support and faculty salaries appear to have less effect on faculty morale than the meaningful participation of faculty in governance. Regardless of financial pressures, college and university leaders should maintain their commitment to collegial governance traditions.*

Presidents and senior administrators at the most successful colleges and universities did intrude in personnel matters. The effective officers, unlike those at less successful institutions, were more likely to contravene hiring, promotion, and tenure decisions made in faculty committees. This intervention was not arbitrary nor taken with insufficient cause. All successful administrators preferred positive actions. The officers offered symbolic and material rewards for professorial accomplishments. A problem at public

Executive Summary and Recommendations

institutions is that budget and collective bargaining rules tend to constrain administrative action. Several presidents at public colleges and universities circumvented this limitation through the creation of quasi-independent foundations. The foundations are corporately independent but their sole purpose is to aid and develop a public college or university. A major use of the income from these foundations is for faculty development and reward.

In spite of the reservations that have been expressed recently regarding institutional planning, *successful institutions in this study were much more likely to have highly developed plans and to rely upon them.* Effective administrators, especially at private institutions, used the long-range plans for framing and analyzing management decisions. Effective administrators in the public sector showed a greater sense of organization and more attention to data analysis than administrators in the less effective colleges, but the disparity was not as obvious as in the private sector. The reason is that administrators at private institutions are essentially dealing with an impersonal environment. They must collect information about the environment, analyze it, and disseminate the results within their organization. There is little else they can do to get ready for the future. Weather reports are not perfect but they help one prepare. In contrast, the "environment" of public colleges is more interactive -- with the state government taking the form of an organizational deity. All planning can go awry if the state capital decides on a budget cut. *Some organizational effort at public colleges may be usefully diverted from planning to convincing the state officials that rain in this season of the college's life would be particularly detrimental to the public good.*

Another observation that arises from these visits is that educational leadership can be more difficult at publicly supported colleges than at independent institutions. The faculty of private institutions more commonly perceive their institutions as at risk. They worry about tuition that they might not be able to afford for their own children. They are much more likely to accept program changes, budget cuts, and professional discomfort if the changes are perceived to be in the best interest of their institution. The president of a public college is likely to be viewed by the faculty as guardian of the budget. The president's job, from this perspective, is to maintain or increase the current level of public funding. He or she is not expected to disrupt significantly the operation of the college. If the budget of a public college is insufficient, the president is the first to be blamed. At each of two public universities with successful activist presidents, there was a harsh campus-wide recognition of institutional jeopardy before changes were forthcoming. In one case, tenured faculty were laid off by the previous president, in the other, the university's closing had been publicly announced. These situations created leadership legitimacy for the presidents. *System and public officials can assist presidents in their managerial efforts by clearly*

and directly communicating to college constituencies about public financial predicaments as they occur. These officials, of course, should avoid interfering in campus affairs

In the 1960s new students and new funds pushed American colleges and universities into new waters, and old programs were enriched and expanded. But now the era of growing resources for higher education has ended. Colleges and universities are no longer sailing downwind. Rather, the financial gusts are blowing in their faces. As unsettling as this fact is, the results of the study reported in this volume provide some encouragement. The findings indicate that with strong leadership and with careful charting of a course, colleges can beat to windward. Administrators must tend the rudder conscientiously, but if the metaphor holds, the ride will be more exhilarating.

Recommendations for Administrators

The declining proportion of the budget devoted to instruction and departmental research is a decade-long phenomenon. One reason for this reduction is that faculty salaries have not kept pace with inflation. Administrators and trustees must be vigilant in their efforts to maintain adequate faculty salaries. An institutional policy that allows research and service grants to pay salary supplements to professors serves a dual purpose. It encourages scholarship and service and raises the income of productive faculty. Administrators at private institutions should initiate such a policy. Their public counterparts may need to persuade state officials of the merits of such a program. Bonuses to the best teachers could be used to reward and encourage teaching excellence.

- In spite of financial pressures, college and university administrators should not abandon the traditional shared governance system. There is evidence that this abandonment is occurring. There is also evidence that autocratic decision making has a greater negative effect on faculty morale than does reduction in institutional finances or faculty salary levels. College administrators must maintain an open communication system with all constituents. On many campuses college faculty are unaware of the problems facing their institutions.

- The importance of shared governance notwithstanding, activist administrators can be very effective. Judicious intervention in personnel decisions is most appropriate. When possible, intervention should be positive in nature -- special recognition for outstanding scholarship, teaching, or service. Effective leadership may also require bold negative actions -- overturning faculty committee decisions, dramatically altering the standards for promotion and tenure, and breaking tenure commitments with due cause.

- In spite of recent cynicism about rational decision making, planning is

not an outmoded concept. Careful attention to planning is particularly important for private institutions

- Public college administrators are often shackled by line item budgets and other formal financial limitations. Officers at these institutions should help set up quasi-independent foundations. Income from these foundations provides a flexible source of funding which can be used for rewarding productive faculty, for seed money in new program initiatives, or for many other useful purposes.

- Under pressure to balance budgets, negotiate contracts, and keep institutional legal commitments, administrators can neglect the more subtle, but equally important issue of campus climate. Campus officials should objectively and regularly "take the pulse" of campus attitudes so that appropriate and timely corrective action can be taken. The IFI is one instrument that is suitable for this. Some college research officers may wish to devise their own survey.

- There are measured instructional and outreach benefits associated in the current "scramble" for students. College administrators, however, must minimize any negative consequences. One potential consequence is an over-emphasis on vocational programs. Others may include unethical recruiting, slipshod program development, or diminished educational standards.

- College officials should stand as a bulwark against the rising tide of vocationalism. An important reason for public support of colleges and universities is their commitment to the betterment of society. If colleges assume the role of two-year and four-year vocational institutions, public largess for higher education may diminish and more nearly approximate the support offered proprietary institutions.

- The decline and dilution of maintenance expenditures are a cause for modest concern on some campuses and are a cause for alarm at others. Campus officials must maintain the basic physical integrity of their campuses. There are, of course, many competing budgetary claims. Administrators at public institutions should document the need for increased maintenance expenditures and press the issue with state officials. Private institutions need to present their case to donors. In both sectors the faculty and other constituent groups need to be made aware of the long-term problems associated with deferred structural maintenance.

Recommendations for Public Officials

- During the 1970's, the source of funding for American higher education moved away from the campus to ever higher levels of government. Federal funds have replaced tuition at private institutions and replaced state

Executive Summary and Recommendations

dollars at public institutions. Local resources have become proportionately less significant and state resources more significant at public two-year colleges. In spite of their increased leverage, federal and state officials should resist the temptation to interfere in campus affairs. The nature of higher education -- highly trained professionals working independently -- inevitably brings a certain amount of waste. Attempts to eradicate all waste would simultaneously limit scholarly and instructional creativity. Public officials should look for funding mechanisms that limit the likelihood of direct interference. Portable student grants offer one approach to this problem.

- Family resources represent the largest realistic source of additional funds for colleges and universities. Higher education officials, working with Congress, should propose legislation that would allow parents to borrow from IRAs for college expenses without tax penalty.

- Public college presidents are in a particularly paradoxical position. State and local education officials want them to reduce educational expenditures while their faculty expects them to bring an even larger share of public funds. State and local officials can assist presidents in their duty as guardians of the public treasury by communicating the government's needs and constraints in more detail to the entire higher education community. When faculty better understand budgetary pressures, organizational and instructional change is easier to achieve.

- Faculty salaries declined significantly during the 1970's. Although at present there is no large exodus from college teaching, certain disciplines are unable to attract all the qualified teachers that are necessary. State officials should carefully review the salaries of public college professors to be sure that they are competitive in all disciplines. As advocated in the recommendations to college officials, state policy should allow for salary overrides for these professors with grants and contracts.

- While enrollments rose in public colleges and universities and in larger private universities, small private colleges had virtually stable enrollments during the 1970's. Although the less prestigious liberal arts colleges still exhibit a strong commitment to undergraduate learning and although faculty morale is still high, these institutions have not been able to build a financial reserve as have other private colleges. Public officials should carefully monitor and assess the vulnerability of all private institutions, especially the small liberal arts colleges, as the competition for enrollment grows in the 1980's.

CHAPTER ONE THE STUDY

It is commonly perceived that the 1970's were a time of restricted resources for higher education and that the 1980's and 1990's are likely to be decades of true penury. Titles of two monographs published by a leading higher education association reflect this evolving perception. In 1974, the American Association for Higher Education (AAHE) published *Higher Education and the Steady State*.¹ The authors, Leslie and Miller, argue that colleges and universities will have to prepare for the end of growth. Five years later AAHE published Mortimer and Tierney's *The Three "R's" of the Eighties: Reduction, Reallocation and Retrenchment*² which presented a much grimmer prognosis. As a consequence of this increased fiscal concern and anxiety, a great deal of research has focused on evaluating the financial health of colleges and universities. The models for these analyses are typically borrowed from the profit-seeking sector; specifically, the tools of corporate financial analysts have been adapted for use in higher education. This corporate financial analytic approach is certainly useful. When applied to non-profit organizations, however, it is structurally inadequate and potentially dysfunctional. This is so because of the difference in goal orientations between the profit and non-profit sectors.

American corporations have the avowed goal of producing a profit. They raise capital with the intent of making it grow and enriching their shareholders. The results of these corporate efforts are expressed in financial terms, generally as a ratio of output to input. Measures such as return on investment, earnings per share, and related trend data have singular significance to the profit-seeking organization. These statements are not intended as argument that the financial analysis of corporations is a simple-minded science. Although the profit-to-equity measures are relatively straightforward indicators of past performance, they are less significant for predicting future performance. To predict future performance, estimates of risk must be considered. To estimate risk a variety of measures are used including evaluation of product, management, competition, and other external

¹Larry L. Leslie and Howard F. Miller, Jr. *Higher Education and the Steady State* (Washington, D.C.:American Association for Higher Education, 1974).

²Kenneth P. Mortimer and Michael L. Tierney *The Three "R's" of the Eighties: Reduction, Reallocation and Retrenchment*, (Washington, D.C.:American Association of Higher Education, 1979).

The Study

forces. Nevertheless, corporate management and the financial community carefully follow the basic fiscal data (sales and return on investment) and pass judgment on the health of companies or industries. Similarly, the government can set policy based on its interpretations of the financial figures.

Non-profit organizations, including public and private colleges and universities, exist to deliver services to the public. Their goal is to deliver the highest quality services at the lowest cost. Unlike their profit-seeking cousins, there are no clear measures of effectiveness. One reason is that outputs and inputs are not in the same denomination. As a result of this discrepancy, ratios of one to the other lack independent meaning. If a college expends \$4000 per student, there is no way to assess whether this is high, low, or moderate without knowing a good deal more about the college's goals, programs, and other characteristics. Moreover, all evaluations must be balanced on a scale of personal or legislative concern. Medical education is much more expensive than legal education. Remedial instruction is more costly than many other forms of education. Where and how institutions spend their funds must be determined by legislators, trustees, administrators and their constituents. The final cost-effectiveness determination is inherently a value decision.

Though in the long term, it is undeniably true that incoming resources must equal or exceed the resources consumed. This financial information is necessary but insufficient to evaluate the health of the non-profit organization. Indeed, *it makes little sense to talk independently about the financial health of non-profit organizations*. Their health is determined by their ability to effectively carry out their mission. In spite of this, public policy makers are showing increasing interest in "financial health." Farmer hints at the problems inherent in this effort: "One of the key uses of (financial) data over the next few years will be to provide 'financial indicators' and to give institutions the means to compare their condition to similar institutions. *As often is the case, financial indicators may be asked to bear a burden that is at best uncomfortable and at worst intolerable*"³ (emphasis mine). The use of near-financial measures, like enrollment, for determining institutional health also tends to ignore the more fundamental issue of goal achievement. Deitch asks the question directly: "To what extent will education's financial difficulties impair the sector's ability to accomplish its principal functions of learning and

³James Farmer, "Agenda for 1979: *Measuring the Financial Conditions of Colleges and Universities* (Washington, D.C.: American Council on Education, 1979) p. 161.

teaching?⁴

THE REPORT

This report is a product of a study of the changes that took place at ninety-three public and private colleges and universities during the 1970s. The report and the research upon which it is based, have several areas of inquiry. Chapter two reports an evaluation of financial trends in American higher education during the decade. Changes in college functioning as perceived by faculty, are presented in Chapters three and four. Chapter five attempts to relate the changes in finance to changes in functioning. In essence, this chapter tests the assumption that institutions with reduced resources will be less effective. In addition, Chapter six reports on visits to thirteen colleges and universities that participated in the study. These visits add texture to the analysis as well as providing alternative explanations for college success or failure. Chapter seven summarizes the findings.

THE COLLEGES AND THE INFORMATION THEY SUPPLIED

In 1980 ninety-three institutions agreed to participate in a study of the financial and educational trends in American higher education. The investigation employed a tripartite methodology. Complete financial and other statistical data were gathered for five academic years: 1967-68, 1970-71, 1973-74, 1976-77, and 1979-80. Each institution in the study administered a standardized instrument to a sample of faculty (in some cases to their entire faculty) in two time periods. The first period of faculty surveys was near the beginning of the 1970s and the second period was between 1979 and 1981. In addition, thirteen colleges were visited. These visits assisted the project staff in interpreting statistical data and added contextual information for this report. This report is based on the results of that study and this chapter explains the information that was gathered.

The Sample

Educational Testing Services Institutional Functioning Inventory (IFI) is a survey used to gauge campus climate and operations. Because it was important to have baseline data on all participating institutions, only the 220 colleges that had used the standardized IFI between 1968 and 1974 were

⁴Kenneth Deitch, *Some Aspects of the Economics of American Higher Education* (Cambridge, Massachusetts: Sloan Commission on Government and Higher Education, 1977) p. 131.

The Study

eligible to be included. Each was asked if it would be willing to participate, and 125 agreed (57%). The sample was reduced for two reasons. Budgeting constraints limited the number of colleges that could be included, and, in some cases, close inspection showed the early IFI data to be unusable. The final sample consists of ninety-three public and private colleges and universities. They are listed in Appendix A, using the Carnegie Classification of 1976⁵

Most groups of institutions are well represented. There are six public research and doctoral institutions, four of which are flagship institutions. Nineteen public comprehensive colleges participated as did ten public community colleges. Fifty-eight private colleges and universities are in the sample, of which fifty-three are comprehensive universities or liberal arts colleges. Only three private research universities had used the IFI during the baseline time period. The sample of two in this category, therefore, is understandable but still inadequate. Names have been omitted from this group in Appendix A to insure the promised confidentiality. Enrollments at private research and doctoral institutions account for only 6 percent of all college enrollments in 1975, but the influence of these institutions is far greater than their enrollment share. The number in this sample cell is a significant constraint of the study. There are only three private two-year colleges in the study. The same problem that occurred in creating the sample of private research universities prevailed. Yet, as a group, these institutions enroll a far smaller percentage of students than the universities and are much less influential.

Of the ninety-three institutions, 35 percent are located in the Northeast, 42 percent in the North Central states, 15 percent in the South, and 8 percent in the West. The Northeast and North Central states are somewhat over-represented, as shown in Table 1-1.

Weighting the Results The results of most of the analyses were weighted so that the final results better project national trends. The weights used are by sector and Carnegie Classification, and are based on the percentage of students enrolled in 1975-76. For example, private doctoral research universities account for 6 percent of all enrollments but only 2 percent of this sample. The statistical procedures were weighted so that the data of this group have the equivalent effect of 6 percent of the sample.

Within sector and Carnegie Classification no weighting was required. Enrollment change reported for public community colleges, for example, is simply the numerical average of enrollment changes at the ten institutions in the sample.

⁵A *Classification of Institutions of Higher Education* (New York: The Carnegie Foundation for the Advancement of Teaching, 1976).

Table 1-1: Geographic Distribution of the Sample

	Percent of Sample	Percent of All Institutions
Northeastern States	35%	25%
North Central States	42%	27%
Southern States	15%	32%
Western States	8%	16%
	<hr/>	<hr/>
	100%	100%

Financial Data and Analyses

This section is entitled *Financial Data and Analyses* but the term "financial" is given a broad meaning here and includes personnel and enrollment data. Indeed, all institutional summary statistics except the IFI have been categorized as "financial data" and are included in this section. Unless otherwise noted, data were collected for the 1967-68, 1970-71, 1973-74, 1976-77, and the 1979-80 academic years.

Personnel Data The National Center for Education Statistics' (NCES) Higher Education General Information Survey (HEGIS) report of Salaries, Tenure, and Fringe Benefits of Full-Time Institutional Faculty was the main source of data of this section. This survey is used to generate data on salaries and number of faculty. Because NCES did not collect these data in 1973-74, none are available for that year. There were some significant changes on the form from the first to the last year of the study, but the data were re-worked to create consistent statistics for each year. For example, salary information was in various forms. In this study, "average salary" is determined by averaging the average assistant professor's salary, the average associate professor's salary, and the average full professor's salary. To the extent that faculty have aged (i.e., the ratio of full to assistant professors has risen over the decade), the trend of this statistic will understate the trend in the average faculty member's salary. However, the trend of this statistic will accurately reflect changes in how competitive faculty salaries are with respect to salaries in other occupations. Salary trend data for professors and other professionals from the American Association of University Professors were used to supplement the salary analysis.

The participating colleges were also asked to supply information on faculty workload policies for 1970-71 and 1979-80. Workload is defined as the number of classes professors are required to teach each year.

Student Data Enrollments were determined using HEGIS data. The

The Study

number of full-time equivalent students (FTE's) was determined by adding one-third of the part-time head count to the full-time headcount. Institutions also supplied information on the number of freshman applications, acceptances, and the matriculation rate. In addition, institutions supplied SAT and ACT scores. ACT scores were converted to SAT score equivalents using a concordance table published by Chase and Barritt.⁶ There are some problems with this conversion,⁷ but they are largely theoretical and unimportant for this type of application.

Financial Data There were three sources of financial information in this study. NCES's HEGIS Financial Statistics of Institutions of Higher Education was the primary one. Other data came from institutional financial reports and also from direct questions of financial officers. All income and expenditure data are expressed in constant 1979-80 dollars. Although the HEGIS financial reporting categories are not consistent from the early years to the latter years, great care was taken to ensure data comparability even at the expense of detail. For example, the 1971 and 1974 HEGIS expense reports included "libraries" but not "academic support," "student support," or "general institutional support." These items are included in "other educational and general." As a result, these categories of expense data for each year are aggregated in the "other" category. In some cases, there was no obvious aggregate category. The separate listing of "student aid revenues" in 1968 is an example. In these cases, the staff consulted the college's full financial report to determine how consistency would best be served. These classification problems notwithstanding, most of the categories are consistent from year to year with reliability of items improving in the latter years.

Institutions were also asked to supply either fund balance and transfer data or full financial reports. Most chose to send the financial reports. In addition, the colleges were asked specific questions about state scholarship data, the inclusion of BEOG funds in their scholarship expense data, and institutional tuition levels.

If a university had a hospital and a medical school, all these financial data were eliminated from their reports because these expenses are so large that they distort comparisons. In addition, respondents were asked to comment on structural and/or financial changes that could affect the consistency

⁶Clinton I. Chase and L. Spencer Barritt, "A Table of Concordance between ACT and SAT," *College Student Personnel*, Vol. 7, No. 2, 1966.

⁷E. James Maxey and Oscar T. Lenning, "Another Look at Concordance Tables between ACT and SAT," *College Student Personnel*, Vol. 15, No. 4, 1974.

Changes in Campus Functioning

Table 3-7: Items on the Meeting Local Needs Scale for Which Responses Changed at least 5 Percentiles

Item No	Item	Percent Answering "yes" or "agree/strongly agree"	
		Early Admin.	Late Admin
73	This institution operates a program of evening courses open to local area residents	66	79
75	Courses are offered through which local area residents may be retrained or upgraded in their job skills	44	62
77	Counseling services are available to adults in the local area seeking information about educational and occupational matters.	39	59
80	There is a job placement service through which local employers may hire students for full- or part-time work.	75	82
83	Facilities are made available to local groups and organizations for meetings, short courses, clinics, forums, and the like.	74	81
86	There are a number of courses or programs that are designed to provide manpower for local area business, industry, or public services.	42	59
87	Courses dealing with artistic expression or appreciation are available to all adults in the local area.	48	60
91	The curriculum is deliberately designed to accommodate a great diversity in student ability levels and educational-vocational aspirations.	52	59
95	Attention is given to maintaining fairly close relationships with businesses and industries in the local area.	49	63
119	There are no courses or programs for students with educational deficiencies, i.e., remedial work.	37	12

seem more inclined toward knowledge-producing activities (items 79 and 82), yet trustees and administrators seem less committed (items 99 and 129). The explanation may be that faculty may perceive the need to be academic "triple threats" -- teaching, service, and scholarship -- in order to succeed professionally in a worsening labor market. Trustees and administrators, in contrast, may wish to bolster teaching because it is the primary source of revenue. Item 74 indicates government grant and contract funds are increasing. This may be a misleading item for this scale if the increase is a result of Title III FIPSE and training grants rather than research money.

Items 94 and 109 ask about the availability of labs and computers. The

Impact on Campus Functioning

Table 3-8: Response to the Institutional and Planning Scale for Which Responses Changed at least 5 Percentiles

Item No.	Item	Percent Answering "yes" or "agree strongly agree"	
		Early Admin.	Late Admin.
76	There is a long range plan for the institution that is embodied in a written document for distribution throughout the institution.	40	57
84	The institution has a long range plan based on a reasonably clear statement of goals.	58	65
103	The change that has taken place at this institution in recent years has been more the result of internal and external influences than of institutional purposes and deliberate planning based thereon.	55	63
108	Currently there is wide discussion and debate in the campus community about what the institution will or should be seeking to accomplish five to ten years in the future.	60	54

Table 3-9: Response to the Concern for Advancing Knowledge Scale for Which Responses Changed at least 5 Percentiles

Item No.	Item	Percent Answering "yes" or "agree strongly agree"	
		Early Admin.	Late Admin.
74	Government or foundation research grants comprise a substantial portion of the institution's income.	16	24
79	A number of departments frequently hold seminars or colloquia in which a visiting scholar discusses his ideas or research findings.	46	51
82	Quite a number of faculty members have had books published in the past two or three years.	23	32
94	Extensive laboratory facilities exist for research in the natural sciences.	36	29
99	In general, the governing board is committed to the view that advancement of knowledge through research and scholarship is a major institutional purpose.	46	36
109	Professors engaged in research that requires use of a computer have easy access to such equipment.	59	70
129	Senior administrators do not consider advancement of knowledge through research to be an important institutional purpose.	41	48

changing responses again conform to generally held perceptions of trends

Changes In Campus Functioning

Computers are in fact more available. Whether the proliferation of computer technology at colleges has kept pace with advances in the state of the art is not answered by item 109. Item 94 gives evidence that laboratories for natural sciences are less adequate at the end of the decade.

Concern for Innovation

The Innovation scale declined from the 50th to the 30th percentile of the ETS norms with all eight of the items on Table 3-10 supporting this trend. Items 98 and 107 specifically ask about major changes that have recently taken place and both show large shifts in the percentage of faculty recognizing such changes. The degree of complacency (item 124) has measurably increased on American campuses. Item 113 suggests that academic changes are somewhat more likely to be made on the basis of financial criteria in 1980.

Table 3-10: Items on the Concern for Innovation Scale for Which Responses Changed at least 5 Percentiles

Item No.	Item	Percent Answering "yes" or "agree/strongly agree"	
		Early Admin.	Late Admin.
96	There is a general willingness here to experiment with innovations that have shown promise at other institutions.	81	74
98	In the last few years, there have been a number of major departures from old ways of doing things at this institution.	28	53
101	High-ranking administrators or department chairmen generally encourage professors to experiment with new courses and teaching methods.	77	70
107	There have been few significant changes in the overall curriculum in the past five years.	25	43
113	Proposed curricular changes seem to be accepted or rejected more on the basis of financial considerations than of assumed educational merit.	42	47
114	The curriculum committee of the college concerns itself with basic curriculum issues rather than, for example, merely approving or disapproving new courses.	60	55
120	This institution would be willing to be among the first to experiment with a novel educational program or method if it appeared promising.	58	48
124	There is an air of complacency among many of the staff, a general feeling that most things at the college are all right as they are.	36	43

Changes in Campus Functioning

II. Esprit

The institutional Esprit scale is really a multi-dimensional scale attested to in Table 3-11. Esprit is probably best measured simply

Table 3-11. Items on the Institutional Esprit Scale for Which Responses Changed at least 5 Percentiles

Item No.	Item	Percent Answering "yes" or "agree/strongly agree"	
		Early Admin.	Late Admin.
97	Most faculty members consider the senior administrators on campus to be able and well-qualified for their positions.	66	57
104	Generally speaking, top-level administrators are providing effective educational leadership.	62	54
116	Close personal friendships between administrators and faculty members are quite common.	61	55
123	In general, faculty morale is high.	61	51
126	The faculty in general is strongly committed to the acknowledged purposes and ideals of the institution.	76	71

by item 123. The percent agreeing that faculty morale is high fell from 61 to 51 percent - an important decline. Parallel to this decrease in morale we find fewer faculty with confidence in their administrations (items 97, 104, and 116). And faculty are less committed to their institution's mission (76 percent to 71 percent on item 126). In spite of these changes, a sense of community has risen slightly (58 percent to 60 percent on item 122 not shown) and, importantly, slightly more faculty members believe that their college is successful in achieving its various goals (70 to 72 percent on item 112 not shown).

American higher education is comprised of a wide variety of institutional types. Reports on large aggregations of colleges and universities can distort and obscure trends within segments. Charts 3-2 and 3-3 provide IFI weighted average profiles for public and private institutions. Charts 3-3 through 3-11 give average IFI scale scores for public and private institutions by Carnegie Classification. The discussion of those charts will focus primarily on major discrepancies from the IFI profile of all colleges

PUBLIC AND PRIVATE INSTITUTIONS

Independent and state supported institutions differ more with respect to the absolute levels of their profiles than they do with respect to the changes that have occurred (See Charts 3-2 and 3-3)

Public colleges understandably exhibit higher average scores on the Human Diversity and the Meeting Local Needs scales. The smaller, more residential private colleges score higher on Concern for Undergraduate Learning and Institutional Esprit. The changes occurring over the decade are quite similar at both sets of institutions although they sometimes differ in degree.

Public and Private colleges show increases of approximately the same magnitude on the Concern for Undergraduate Learning and the Human Diversity scales and comparable declines on the Democratic Governance Scale. Independent colleges rose more on the Self-Study and Planning scale and also on Meeting Local Needs. Part of the explanation for the latter is that public colleges were so involved in continuing education and related activities in the early 1970s that increases were not as noticeable. Average scores on Concern for Improvement of Society and Concern for Innovation slipped in both sectors with the declines in the private sector being somewhat larger. Item responses provide additional useful details. For example, item 18 asks about college involvement in improving urban life. At the publicly supported colleges, there is an 8 percentage point decline in faculty members acknowledging less involvement. At private institutions the decline is 20 percent.

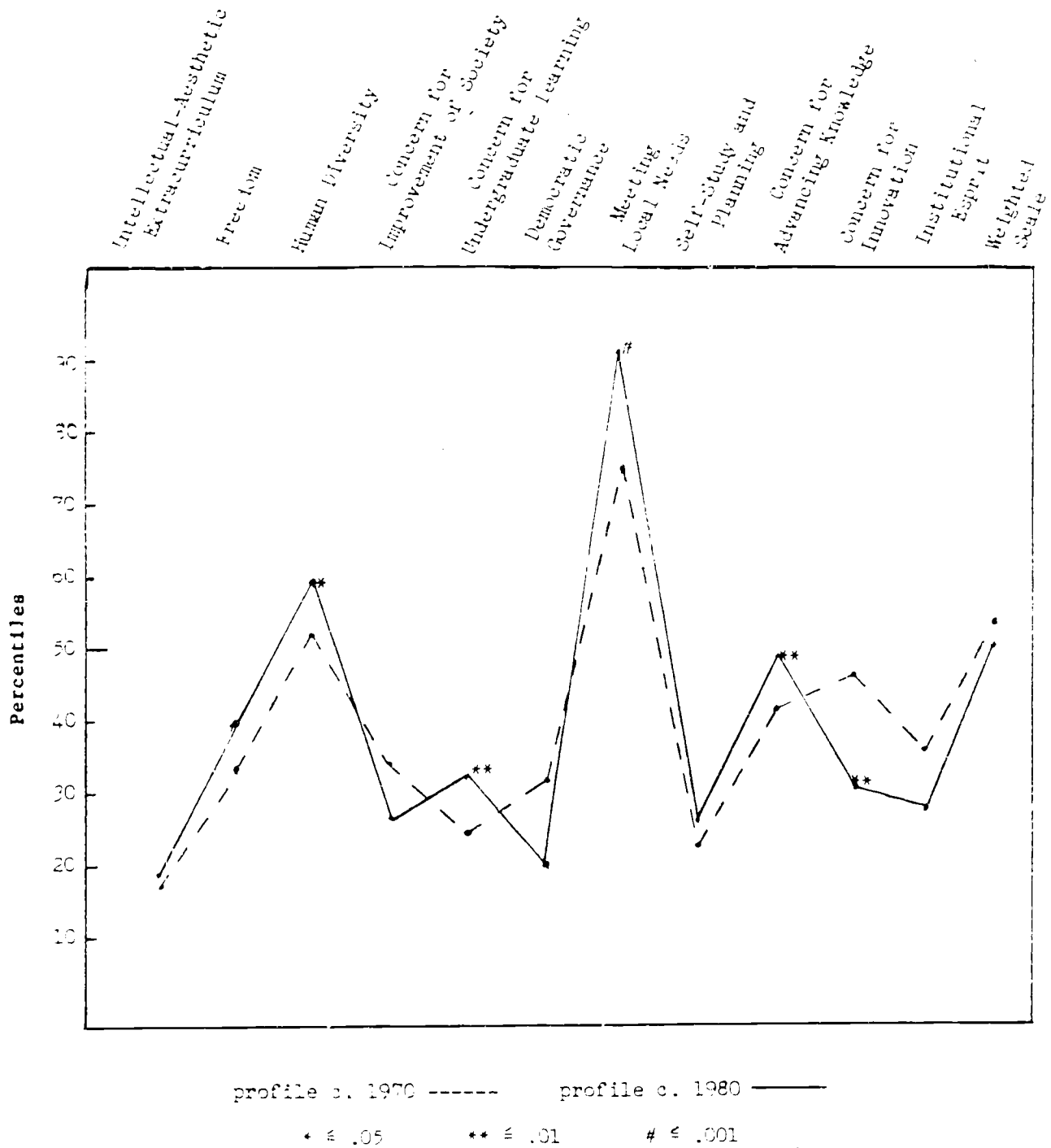
Similarly, in terms of innovation, we find a 30 percentage point drop in private college professors responding that there are 'major departures from old ways of doing things'. At public colleges the decline is only 10 percentage points.

On the Intellectual-Aesthetic Extracurriculum, Self Study and Planning, Concern for Advancing Knowledge and Institutional Esprit scales neither sector showed much change.

Only on the Freedom scale do the sectors diverge in direction significantly. The public sector is up 7 percentiles and the private sector down in equal amount. Item 61 asks if faculty feel free to express radical political beliefs in their classrooms. Roughly two-thirds of both the public and private sectors acknowledge this freedom, but the trends are different. In 1980 slightly more faculty members in the public sector affirm this freedom. In the private sector fewer faculty members in 1980 feel free to express radical political beliefs. Similarly, there has been a slight decrease in the acceptance of nonconformist student styles in public colleges (down 7 per-

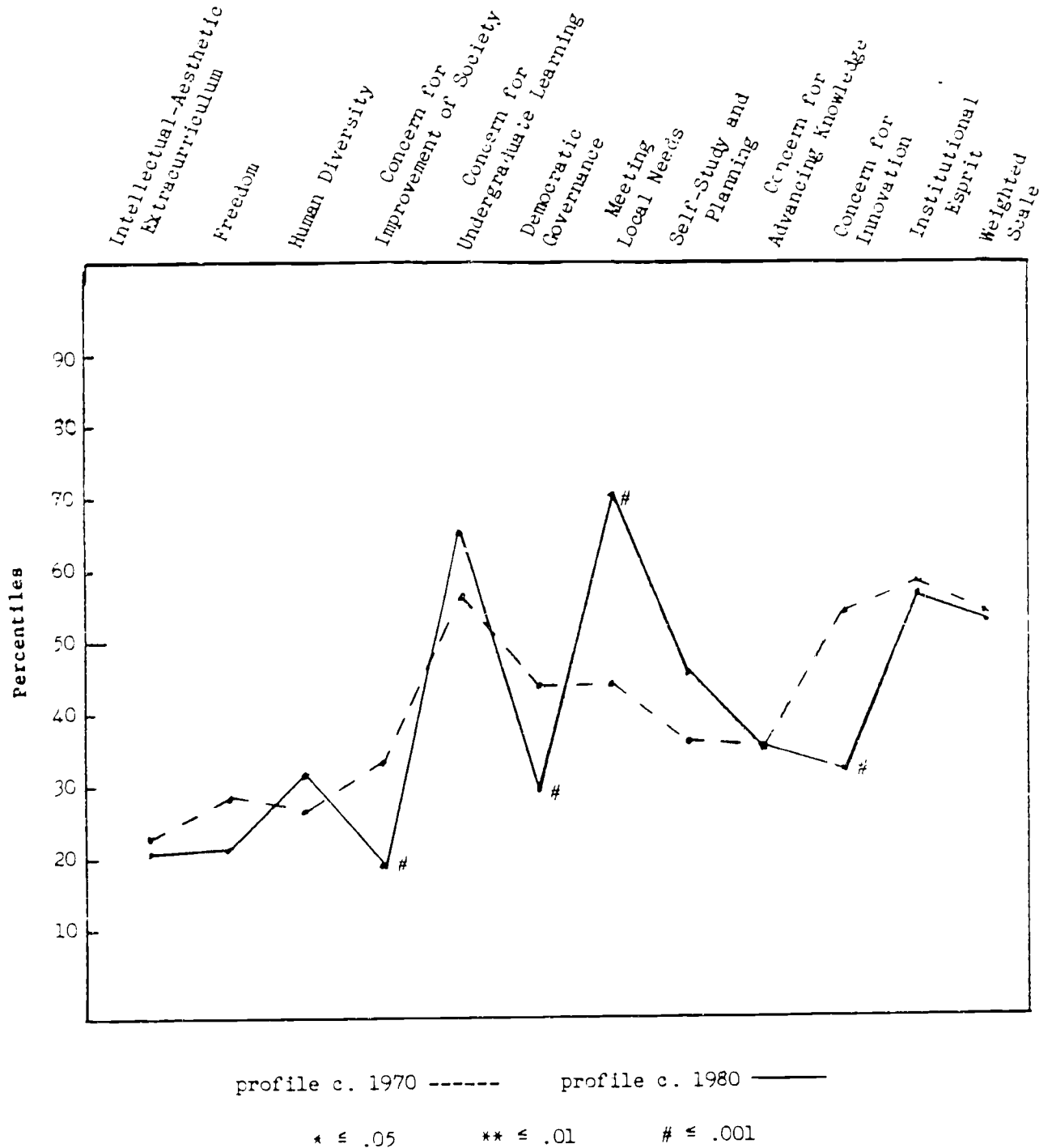
Changes In Campus Functioning

Chart 3-2: Changes on the Institutional Functioning inventory
Public Colleges and Universities
N=35



Changes In Campus Functioning

Chart 3-3: Changes on the Institutional Functioning Inventory
Private Colleges and Universities
N=58



Changes In Campus Functioning

centage points) compared with a much more severe decline at private institutions (down 19 percentage points).

Public Institutions by Carnegie Classification

The chronicle of changing faculty opinions of public college operations is indeed a story of institutional type. Public colleges as a whole have been stable. Examining the data by Carnegie Classification, however, offers new insights, as evidenced on Charts 3-4 through 3-6.

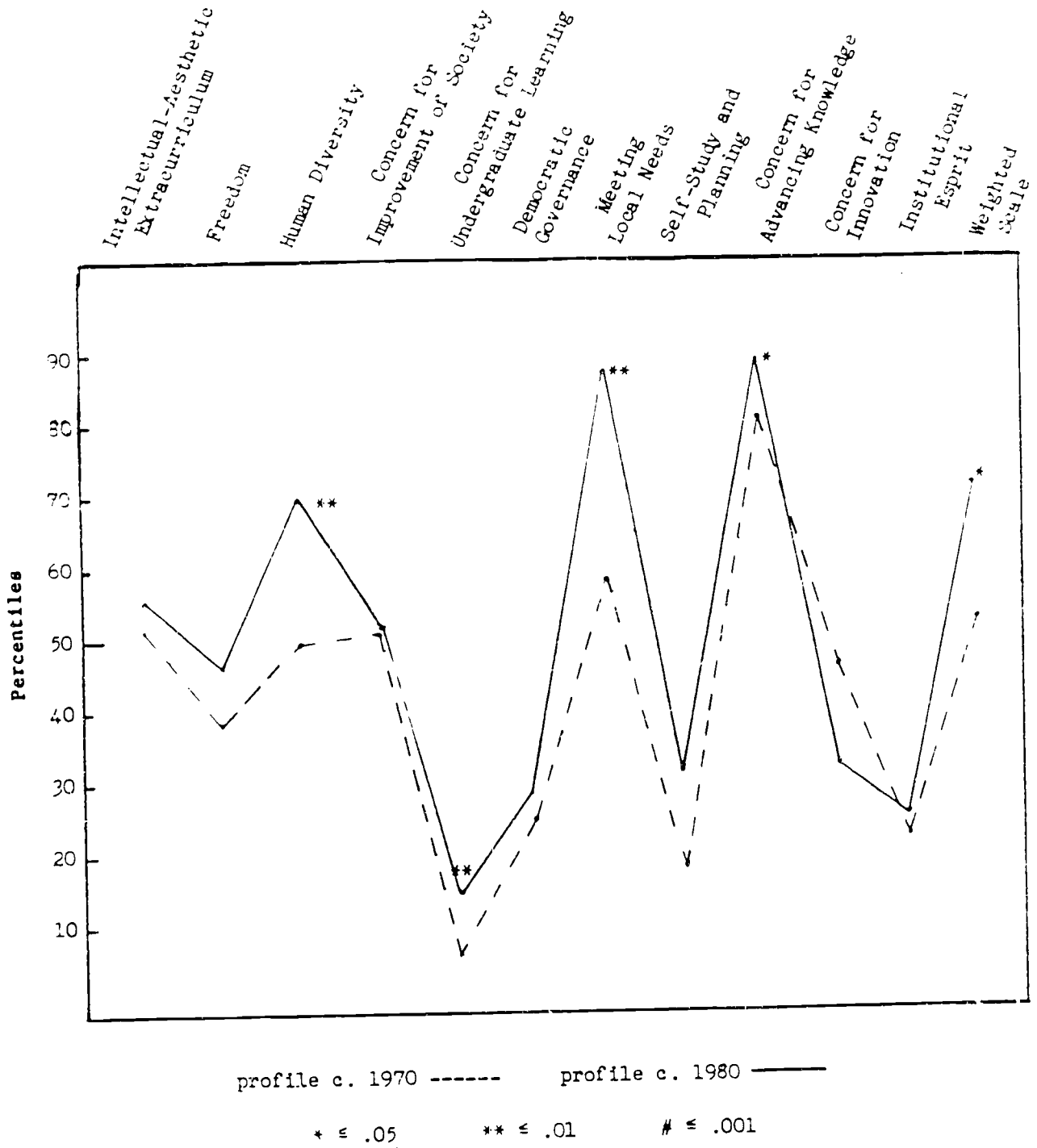
Public Research and Doctoral Institutions These research institutions emerged from the decade in apparently better condition than at the start. Only one average score that measuring Concern For Innovation declined. Some of the changes are slight but run counter to the trends at most other types of colleges. The stability of the Concern For Improvement of Society scale is an example of such a change. The average score for every other group of institutions declined on this scale. It is unchanged over the decade at research oriented public universities. According to the perceptions of faculty members, it seems that administrators and trustees are at least partially responsible. Item 34 asks about faculty and administrators support for solving social problems. The number agreeing rose from 49 to 50 percent. Support declined at all other institutions. Probing for resistance from the governing board, item 70 shows that professors at the public research institutions notice less trustee opposition (35 percent to 33 percent) while those at all other institutional types notice more (43 percent to 49 percent). The Human Diversity scale and the Meeting Local Needs scales increased substantially, suggesting that these larger institutions are competing more with community colleges for disadvantaged and older students. For example on item 2, more faculty members observe the existence of disadvantaged students (61 percent to 74 percent), and more are aware of remedial programs (77 percent to 93 percent on item 119). There is a 36 percentage point increase in professors citing strong efforts by these universities to attract students of diverse ethnic and social backgrounds (item 19). The changes are not limited to the types of students they seek; these universities are also changing how they compete. In the early administration 79 percent cited the existence of an adult program with evening courses. That figure is now 96 percent (item 73).

These large state universities scored at the 86th percentile on the Concern for Advancing Knowledge scale. In 1980 the average scale score was slightly higher. Concern for Undergraduate Learning, historically low at these universities, rose about 7 percentage points. The Institutional Esprit scale was up marginally. However, faculty morale declined quite significantly. In the early administration 54 percent agreed that faculty morale was high, but only 40 percent agreed at the end of the 1970s.

Changes In Campus Functioning

Chart 3-4: Changes on the Institutional Functioning Inventory
Public Research and Doctoral Universities

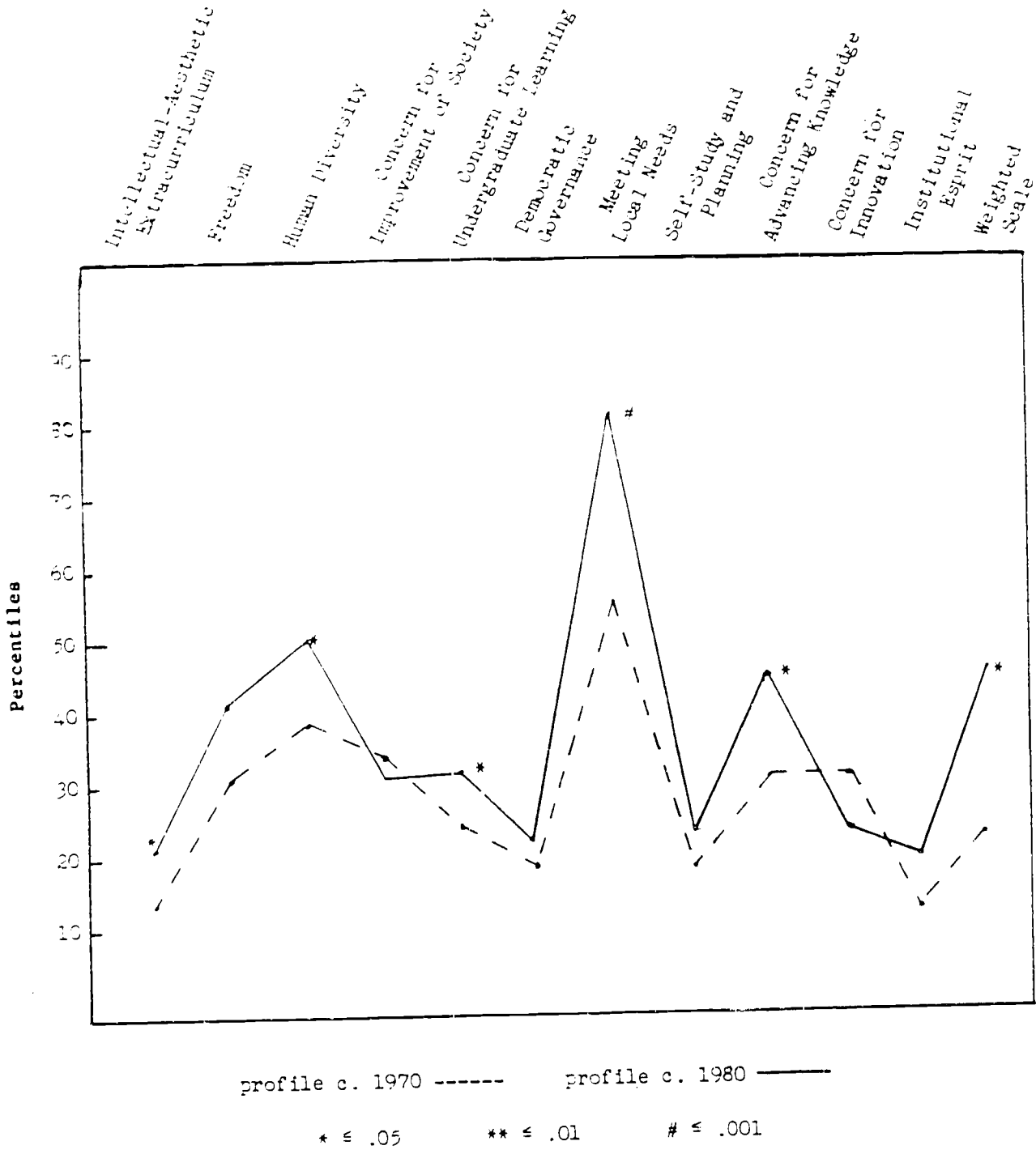
N=6



Changes In Campus Functioning

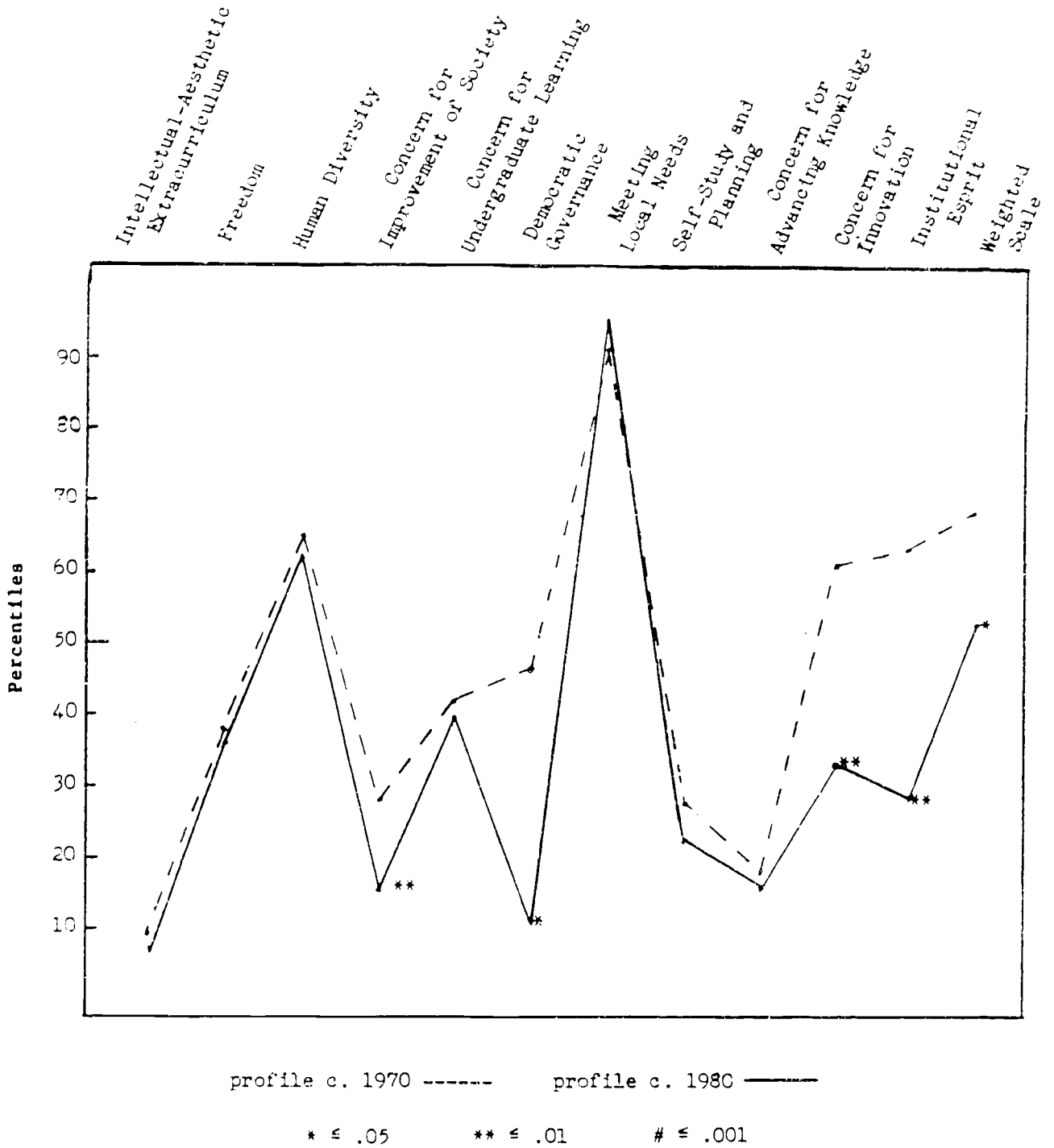
Chart 3-5: Changes on the Institutional Functioning Inventory
Public Comprehensive Universities

N=19



Changes in Campus Functioning

Chart 3-6: Changes on the Institutional Functioning Inventory
Public Two-Year Colleges
N=10



Changes in Campus Functioning

The president's Weighted Scale score rose from the 51st to the 71st percentile. This summary statistic of change and most of the other measures of campus environment provide evidence that these large public universities emerged from the decade in rather good condition.

Public Comprehensive Colleges and Universities These former teachers colleges, which now have expanded their missions, also show largely positive changes. The Democratic Governance and Concern for Improvement of Society scales did not change. The Concern for Innovation dropped, but other changes were all positive and in several instances surpassed those of the public research universities. Again, there are fairly substantial increases on the Human Diversity and Meeting Local Needs scales. The same items attest to the possibility of greater competition with public community colleges. A larger proportion of faculty members observe disadvantaged students (63 percent to 70 percent on item 2) and many more are aware of remedial programs (69 percent to 92 percent on item 119). There is a twelve percentage point increase in faculty observing strong efforts to attract students of diverse ethnic and social backgrounds (item 19). Evening courses for area residents were commonly seen at the colleges in 1970 (74 percent on item 73). Now they are almost unanimously observed (94 percent).

Contrary to the trends at most groups of colleges, the Concern for Advancing Knowledge scale rose significantly. Item 99 shows no change in trustee support of research, but it does show a twelve percentage point increase in faculty citing administrative support. Indeed, more faculty believe promotions to be based primarily on scholarship (8 percent to 15 percent on item 90). A larger proportion of the faculty believe that "many" of their colleagues have published books recently (24 percent to 32 percent on item 82).

Community Colleges Seven of the eleven scale scores are essentially unchanged. In contrast with other publicly supported colleges, however, several scales have declined measurably. The Concern for Innovation scale fell 30 percentiles -- a change that seems ironic considering the historical perception of community colleges as adaptable institutions²⁵. Democratic Governance has fallen 35 percentiles. In the early administration 55 percent of the faculty members described governance as one in which faculty and administration shared authority. In the latest survey only 30 percent perceive this sharing. The slide of the Institutional Esprit scale was even more pronounced -- 38 percentiles. The professors at these ten institutions have lost confidence in their administration. For example, 45 percent of the

²⁵ James W. Thornton, Jr. *The Community Junior College* (New York: John Wiley, 1960) p32

faculty believe their administrators offer effective leadership compared with 65 percent a decade ago (item 104). Morale has declined more than in any other group of colleges studied (65 percent to 41 percent on item 123). Why public community college faculty should be so dispirited is not clear. Some tentative explanations are offered in Chapter Seven.

The difference in trends between community colleges and other public institutions is so striking that the possibility that the data are in error has been considered. There are no comparable measures of environmental change. ETS has, however, recently compiled new normative data for community college.²⁹ The new norms were established by averaging the scores from twenty-one public two-year colleges that used the IFI between 1977 and 1982. Eight of those are colleges from this study, the remaining thirteen are not. The average scale scores for the sample of twenty-one institutions coincides almost perfectly with the new average scores of the sample of ten used in this study. Only the Freedom scale score differs by more than 5 deciles -- the average score on that scale for the sample of 21 falls 20 deciles below that of the sample in the study. The close fit on ten of eleven scales is additional support that community college environments have become particularly unsettled during the 1970's.

Private Institutions by Carnegie Classification

The story of changes at private colleges is not so neat nor so simple as the one at public institutions (See Charts 3-7 through 3-11). There are several reasons for this complexity. First, the numbers of private research universities and two-year colleges in the sample are very small. Then, too, the Carnegie Classification does not fit the private colleges as well as it does those in the public sector -- particularly in the middle ranges. For example, the public comprehensive colleges are very similar to each other in their history and current mission³⁰ while the private comprehensive colleges are much more diversified. Some have a long history as universities, others are liberal arts colleges to which graduate programs have been added. Quite a few of these private comprehensive colleges more closely resemble liberal arts colleges than universities. Some have a strong religious heritage.

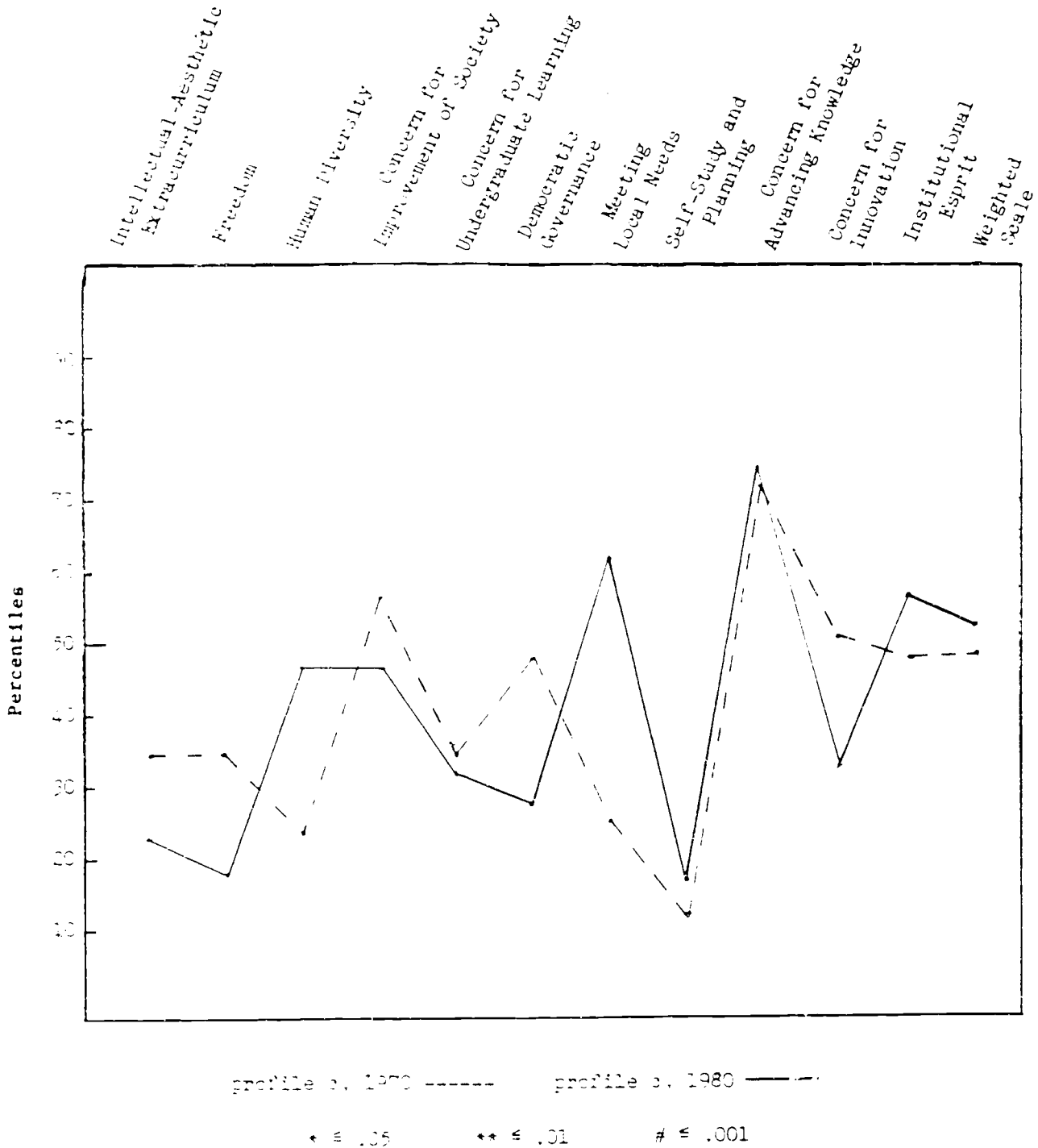
In spite of these classification and sample problems, there is a good deal of consensus across the groups. The changes on most of the scales

²⁹Comparative Data, *Institutional Functioning Inventory, Community Colleges* (Princeton, NJ: Educational Testing Service, 1982).

³⁰Christopher Jencks and David Riesman, *The Academic Revolution* (Garden City, NY: Doubleday, 1968), p. 232.

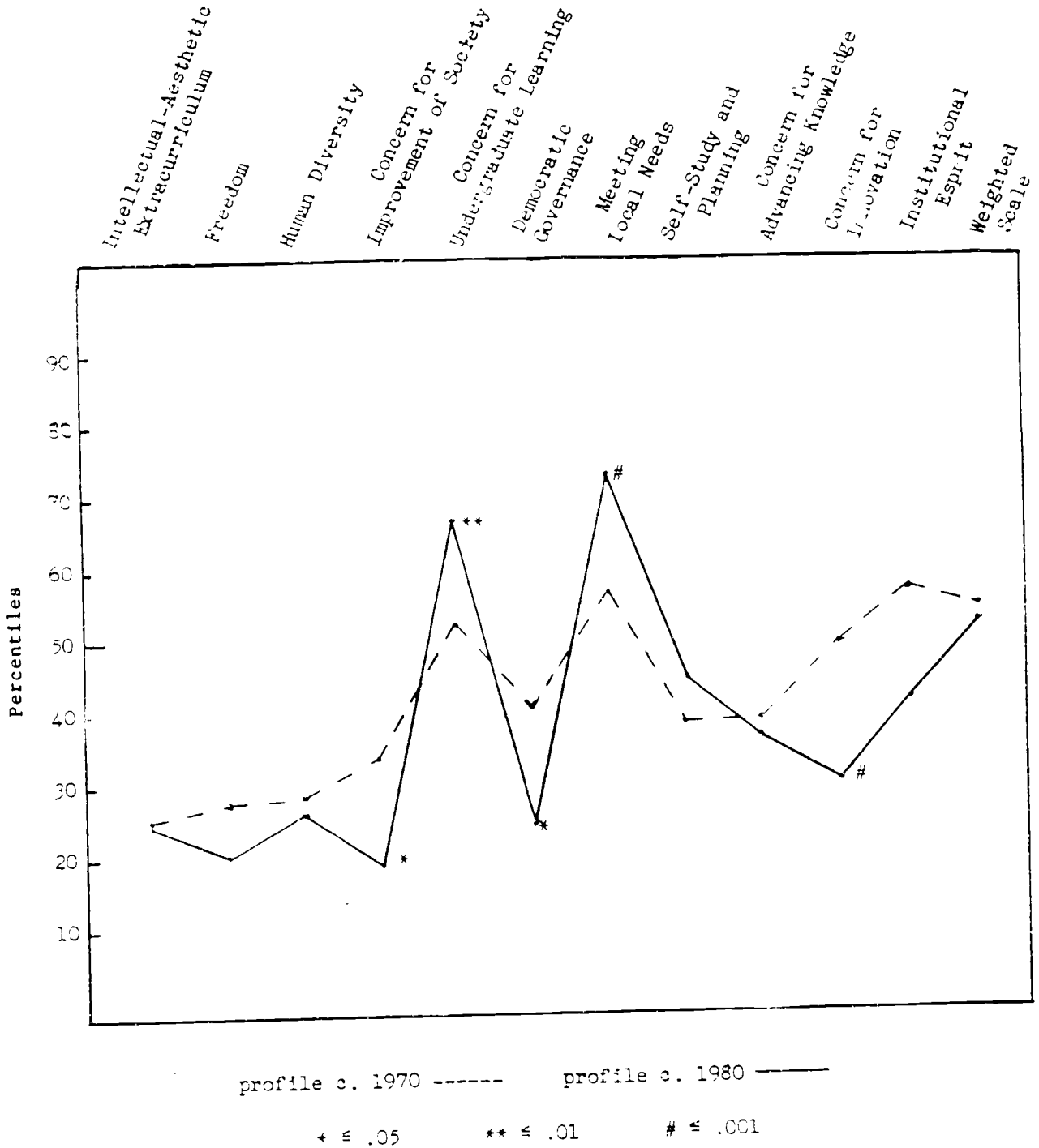
Changes In Campus Functioning

Chart 3-7: Changes on the Institutional Functioning Inventory
 Private Research and Doctoral Universities
 N=2



Changes In Campus Functioning

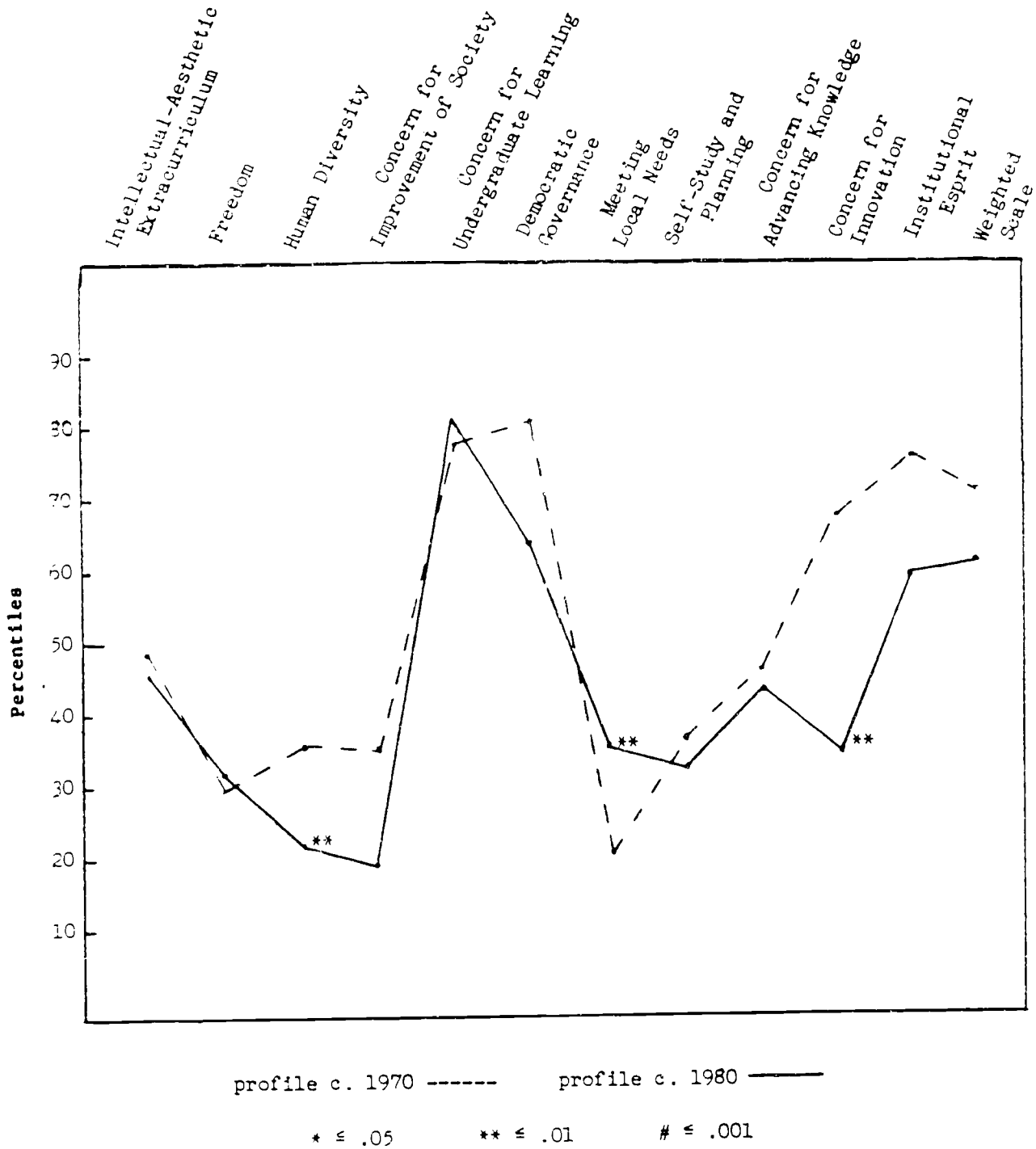
Chart 3-8: Changes on the Institutional Functioning Inventory
Private Comprehensive Universities
N=24



Changes In Campus Functioning

**Chart 3-9: Changes on the Institutional Functioning Inventory:
Private Liberal Arts Colleges I**

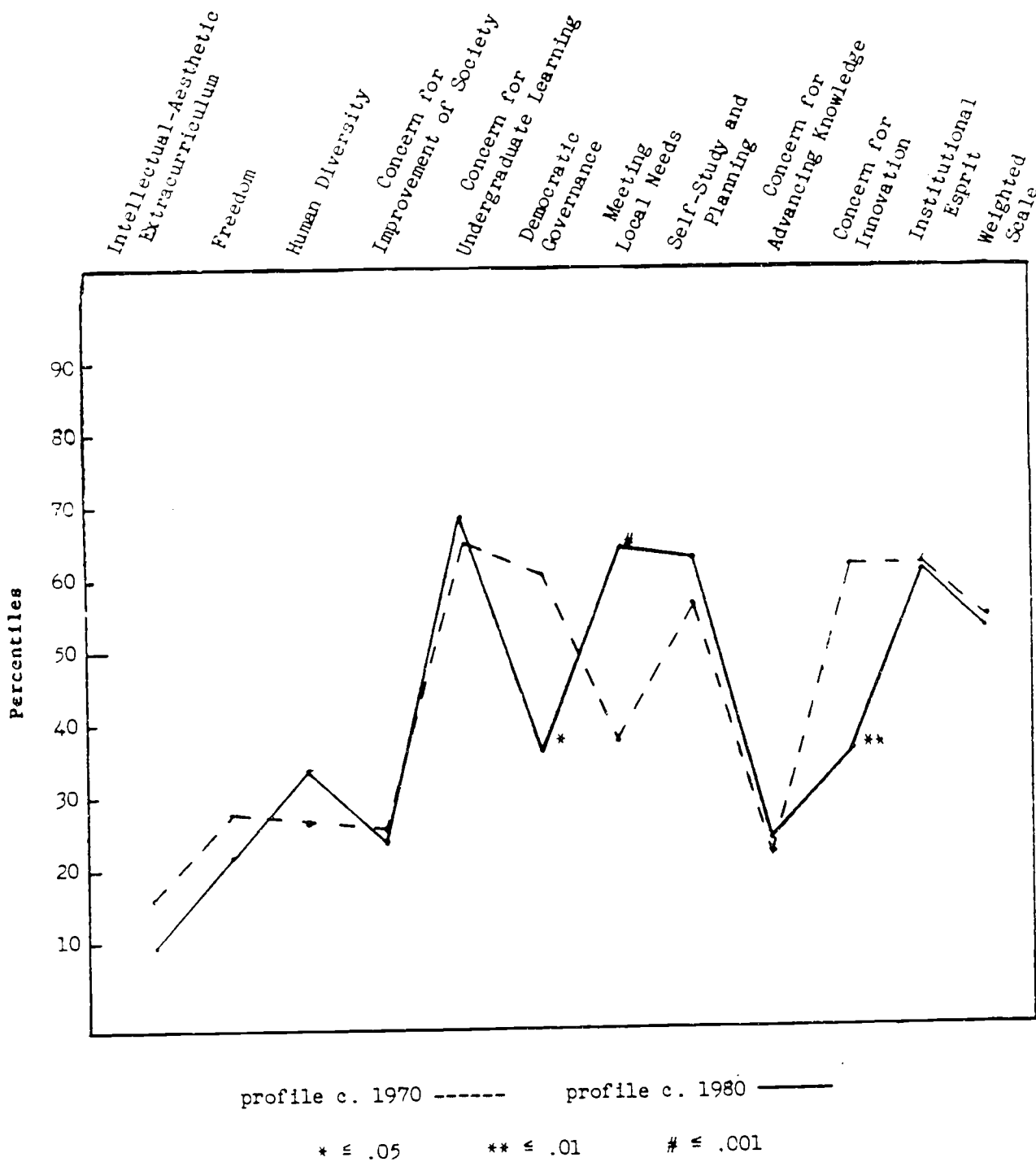
N=11



Changes In Campus Functioning

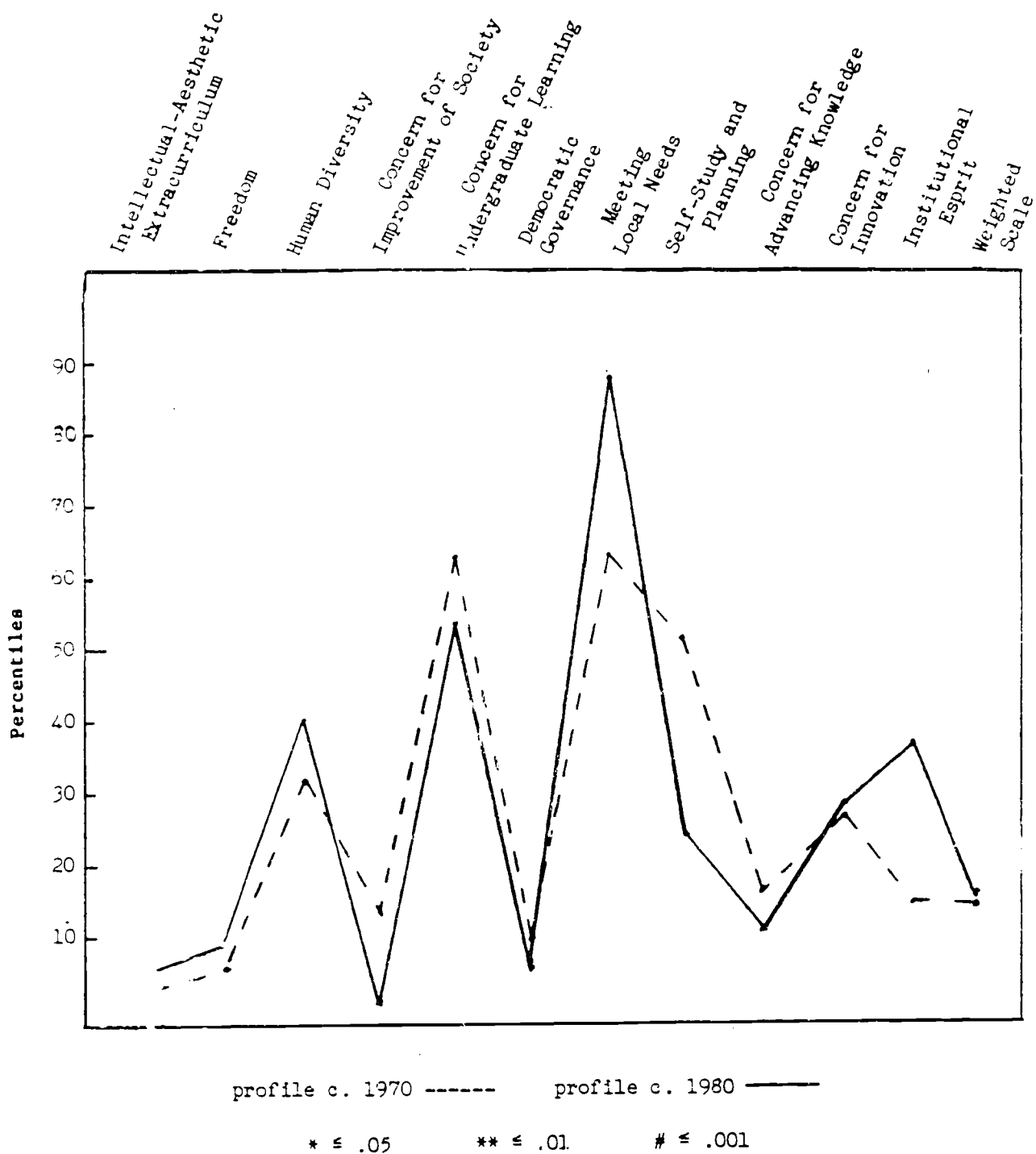
**Chart 3-10: Changes on the Institutional Functioning Inventory.
Private Liberal Arts Colleges II**

N=18



Changes In Campus Functioning

Chart 3-11: Changes on the Institutional Functioning Inventory:
Private Two-Year Colleges
N=3



Changes In Campus Functioning

Table 3-12: Items Related to Disadvantaged Students at Private Liberal Art I Colleges

Item No.	Item	Percent Answering "yes" or "agree/strongly agree"	
		Early Admin.	Late Admin
2	There are provisions by which some number of educationally disadvantaged students may be admitted to the institution without meeting the normal entrance requirements.	66	55
11	This institution deliberately seeks to admit a student body in which a variety of attitudes and values will be present.	48	44
19	A concerted effort is made to attract students of diverse ethnic and social backgrounds.	52	48
28	This institution tends to attract students from a somewhat restricted range of socioeconomic backgrounds.	77	81
53	Compared with most other colleges, fewer minority groups are represented on this campus.	49	62
119	There are no courses or programs for students with educational deficiencies, i.e., remedial work.	43	22
130	This institution considers its most valuable service to lie in educating the upper 10 percent or so of secondary school graduates.	41	41

Changes In Campus Functioning

are similar for all groups of colleges with only three notable exceptions. First, Concern for Improvement of Society and Institutional Esprit remain constant at Liberal Arts II colleges and both scales fall significantly at all other colleges. The Liberal Arts II category has more religious institutions, which may be an explanatory fact. The steady and relatively high Institutional Esprit score is particularly perplexing considering the financial weakness of these small colleges. Reviewing the items does not clarify the results. Although the faculty express less confidence in their administrators (items 97 and 104) they believe that their colleges are more successful than a decade earlier (72 percent to 77 percent on item 112). Currently 65 percent of the faculty cite morale as high only 3 percent less than a decade earlier (item 123).

The final puzzle occurs at the Liberal Arts I colleges, which, contrary to the trends at most other independent colleges, register a decline of 13 deciles on the Human Diversity scale. The relevant items are listed on Table 3-12. The numbers are not so dramatic until contrasted with other groups of colleges. Other institutions, for reasons that may be educational or financial, are enrolling considerably more disadvantaged students. The faculty members at the more selective Liberal Arts I colleges see fewer disadvantaged and fewer minority students and more students from a restricted socio-economic range. Yet, there are more remedial programs on campus. Have these colleges reached the point at which they feel additional disadvantaged students cannot be properly accommodated? Are the "missing disadvantaged students" really from lower middle income homes without private or public resources to attend these colleges? Have these colleges pulled back from a commitment to disadvantaged and minority students because they perceive their competitive "niche" to be that of serving primarily the upper middle class? Unfortunately, the data cannot answer these questions.

SUMMARY

Although it is common to refer to the seventies as a tumultuous decade in higher education, faculty perceptions of their campuses have remained relatively stable. The 1980 IFI profile of any type of college in either sector is much more likely to resemble its own 1970 profile rather than the profile of any other group of institutions. Both negative and positive changes, however, have occurred. Professors in 1980 believe that their opinions on college operations are considered less, that innovation is a considerably rarer commodity, and that the entire academic community is less concerned with solving social problems. Faculty have less confidence in administration and generally have lower morale. On the other hand, faculty members see a good deal more outreach toward the local community, they

Changes In Campus Functioning

notice a student body which is more diverse socio-economically, and they perceive their colleagues paying more attention to the teaching of undergraduate students. In sum, colleges are probably less fun than they were a decade ago. But in certain ways they are more effective.

Most of the public institutions seem to have fared better than those in the private sector. Public research and doctoral and public comprehensive universities have all of the positive features mentioned above with the negative aspects being much less apparent. The negative trends in the public sector are concentrated at locally supported two-year colleges. No dimension of their environment shows any improvement and the instructional staff of these campuses has become especially dispirited and disgruntled during the decade.

CHAPTER FOUR OTHER FACULTY OPINIONS

The IFI answering and scoring systems have been designed by the Educational Testing Service in such a manner that ten "local option" questions can be added. These questions were developed by the Institute of Higher Education, for the 88 colleges that administered the IFI in the 1980-81 academic year. There are, of course, no comparable questions for the early administration. The number of faculty responding to these special questions is 4,819 or 94 percent of all respondents.

Eight of the questions were designed to trace linkages between finance and faculty work. How have budget changes affected what professors do? One question explores the non-financial rewards of professorial activities. The last question probes faculty members' opinion of their own college's finances.

Ten questions provide very limited room for subtlety or for detailed inquiry. This was partially overcome by expanding (and complicating) the number of possible responses. Within a single question the respondents were asked for both levels and direction of change (high and increasing, high and stable, etc). More problematic was the unavailability of baseline data. No group of faculty had been asked these questions before. When faculty were asked if they could get \$500, what percentage of respondents could be reasonably expected to say they could get the money easily? 25 percent? 50 percent? 75 percent?

Although faculty were asked about change over time, not much confidence can be placed on their answers. Faculty are presumably aware that there is a great deal of discussion concerning the "financial crisis" of higher education, and this awareness must affect their response patterns. The data are presented within the context of these limitations.

RESULTS

Table 4-1 lists the ten questions and the percentage response rate for all faculty -- for faculty at public colleges, and for faculty at private colleges. In addition, the data were reviewed by Carnegie Classification when they departed significantly from the general patterns.

Other Faculty Opinions

Table 4-1: Local Option Questions

Number of Faculty = 4819

Number of Institutions = 89

Question 1. Suppose you wanted to make a minor change in one of your courses requiring about \$500 in college (or departmental) funds, and the idea is generally received as good, which would you say is most likely to occur?

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
I would get the \$500 after proceeding through prescribed administrative channels.	50	41	57
I would be interminably delayed in bureaucratic channels but would get the money.	15	19	12
I would be immediately told that the college cannot afford it.	24	25	23
I would be delayed in bureaucratic channels and not get the money.	11	15	8

Question 2. Suppose you requested about \$500 in college (or departmental) funds to assist you in your scholarly work or research, and the pursuit is generally perceived to be valuable. For example, you may need the funds for equipment, travel, or a research assistant. Which would you say is most likely to occur?

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
I would get the \$500 after proceeding through prescribed administrative channels.	49	41	54
I would be interminably delayed in bureaucratic channels but would get the money.	14	17	12
I would be immediately told that the college cannot afford it.	28	29	27
I would be delayed in bureaucratic channels and not get the money.	9	13	7

Other Faculty Opinions

Question 3. Suppose you wanted to initiate a community outreach project or some other community service project which required about \$500 in college (or departmental) funds. It is generally received as a good idea, but there is no financial payback. Which would you say is most likely to occur?

	Percent Responding		
	Total	Public	Private
I would get the \$500 after proceeding through prescribed administrative channels.	25	23	26
I would be interminably delayed in bureaucratic channels but would get the money.	15	16	14
I would be immediately told that the college cannot afford it.	43	44	45
I would be delayed in bureaucratic channels and not get the money.	17	17	15

Question 4. Since 1970, college funds available for instructional innovation, faculty scholarship, and community service activities have:

	Percent Responding		
	Total	Public	Private
Become much more difficult to obtain.	28	37	19
Become somewhat more difficult to obtain.	33	34	32
Remained unchanged.	17	11	22
Become somewhat easier to obtain.	19	12	23
Become much easier to obtain.	3	6	4

Question 5. Faculty require different support services to adequately do their jobs. These services may include typing, duplicating, library resources, data processing, etc. With respect to your responsibilities as a faculty member, please evaluate services at your institution.

	Percent Responding		
	Total	Public	Private
Superior	13	12	14
Superior but declining.	5	8	2
Adequate and improving.	17	11	22
Adequate and stable.	30	25	34
Adequate but declining.	17	27	10
Poor but improving.	5	3	6
Poor and stable.	8	7	9
Poor and declining.	5	7	3

Other Faculty Opinions

Question 6. The non-financial rewards of my job are:

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
Very significant and increasing.	10	8	11
Very significant and stable.	18	15	20
Very significant but declining.	9	10	9
Significant and increasing.	10	8	11
Significant and stable.	25	24	26
Significant but declining.	18	22	15
Insignificant but increasing.	1	1	1
Insignificant and stable.	4	5	4
Insignificant and declining.	5	7	3

Question 7. Since 1970, I have:

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
Greatly increased my efforts to supplement my income from activities other than teaching and research.	19	18	19
Somewhat increased my efforts.	30	31	28
Neither increased nor decreased my efforts.	47	46	49
Somewhat decreased my efforts.	3	3	3
Greatly decreased my efforts.	1	2	1

Question 8. My outside income comes primarily from:

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
A private professional practice (such as psychological, business, legal, medical, or tutorial work).	8	7	9
Consulting	12	13	11
Book royalties or patent income.	3	4	2
Other work directly related to my academic work, e.g., teaching at other institutions or research	13	10	15
Work not directly related to my academic work.	14	14	13
No significant outside income.	50	52	50

Other Faculty Opinions

Question 9. Since assuming your present position, how would you describe your efforts to secure another job outside your institution? (Choose one which best applies to you.)

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
I have not looked for another position and I would not consider one.	18	16	19
I have not looked for another position but might consider one at another college or university if attractive.	35	34	36
I have not looked for another position but might consider one outside of academe if attractive.	15	17	14
I have explored the possibility of another position(s) at a college or university.	18	18	19
I have explored the possibility of another position(s) outside of academe.	7	8	6
I am actively seeking another position at another college or university.	4	4	4
I am actively seeking another position outside of academe.	3	3	2

Question 10. I consider the financial condition of my college to be:

	Percent Responding		
	<u>Total</u>	<u>Public</u>	<u>Private</u>
Very strong	6	4	9
Reasonably strong.	48	39	54
Somewhat weak	31	38	26
Very weak.	11	15	9
I do not know	4	4	2

- Collier, Douglas J and Patrick, Cathleen *A Multivariate Approach to the Analysis of Institutional Financial Condition* Boulder, Colorado National Center for Higher Education Management Systems, 1978
- Deitch, Kenneth *Some Aspects of the Economics of American Higher Education* Cambridge, Massachusetts Sloan Commission on Government and Higher Education, 1977
- Farmer, James "Agenda for 1979" in *Measuring the Financial Conditions of Colleges and Universities* Washington, DC American Council on Education, 1979
- Handbook of Labor Statistics* Washington, D C US Department of Labor, Bureau of Labor Statistics, December, 1970 Bulletin 2070.
- Historical Statistics of the U.S. -- Colonial Times to 1970* Washington, DC US Dept of Commerce Bureau of Census
- Hutchins, Robert M "Hard Times and the Higher Learning" in *Yale Review*, Vol 22, 1933
- Jellema, William W *From Red to Black?* San Francisco Jossey-Bass, 1973
- Jencks, Christopher and Riesman, David *The Academic Revolution* Garden City NY Doubleday, 1968
- Kaiser, HH *Mortgaging the Future: The Cost of Deferred Maintenance* Washington, D C Association of Physical Plant Administrators, 1979
- Lanier, Lyle H and Andersen Charles J *A Study of the Financial Condition of Colleges and Universities: 1972-1975* Washington, DC: American Council on Education, 1975
- Leslie, Larry L and Miller, Howard F Jr *Higher Education and the Steady State* Washington DC American Association for Higher Education, 1974
- Maxey, E James and Lenning, Oscar T "Another Look at Concordance Tables between ACT and SAT," *College Student Personnel*, Vol. 15, No. 4, 1974
- Minter, W John and Bowen, Howard R *Independent Higher Education: Fifth Annual Report* Washington, DC National Institute of Independent Colleges, 1980
- Minter, W John and Bowen, Howard R *Preserving America's Investment in*

Human Capital. Washington, D. C. American Association of State Colleges and Universities. 1980

Mortimer, Kenneth P. and Tierney, Michael L. *The Three "R's" of the Eighties: Reduction, Reallocation and Retrenchment*. Washington, D.C. American Association of Higher Education. 1979

Peterson, Richard E., Centra, John A., Harnett, Rodney T., and Linn, Robert L. *Institutional Functioning Inventory Preliminary Technical Manual*. Princeton, N.J. Educational Testing Service. 1970

Ratio Analysis in Higher Education. New York: Peat, Marwick, Mitchell and Co., 1980

Riesman, David *On Higher Education*. San Francisco: Foundation for the Advancement of Teaching/Jossey-Bass. 1980.

Statistical Abstract of the U.S. 1971-1974, 1976-1981

Thompson, James W. and Anderson, Richard E. "Financial Results During Periods of Inflation" in *Business Officer*, January 1983.

Thornton, James Jr. *The Community Junior College*. New York: John Wiley, 1960

About the Author

Richard Anderson is Associate Professor of Higher Education at Teachers College, Columbia University and Chairman of the Department of Higher and Adult Education. He has written extensively on financial issues of post-secondary education. His books include *Strategic Policy Changes at Private Colleges* and *The Cost and Financing of Adult Education and Training*. He is currently involved in a study of the economics of training programs in American corporations.