

EXCELLENCE AT RISK

The College of Arts and Sciences

Indiana University, Bloomington

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EXCELLENCE AT RISK:

The College of Arts and Sciences, Indiana University

- The College has achieved first class status in most programs.
- Inadequate share of resources available to the College threatens this achievement.

Teaching

- Insufficient resources prevents uniformly excellent lower division instruction.
- Inadequate preparation and supervision plagues many Associate Instructor taught courses.
- Undergraduates can complete two years with only minimal writing assignments.
- Lower division students rarely have substantially academic conversations with faculty.
- Half of our undergraduates remain outside degree granting academic programs.

Research

- Faculty research has expanded and grown in the College during the past decade.
- Grant and overhead percentages from the College have grown substantially in the decade.
- The reallocation of funds from instruction to research has been accomplished through:
 - * Reduced teaching loads for research faculty;
 - * Funds for technicians, programmers, and other support personnel;
 - * Funds for institutes and programs in the social sciences and humanities; and
 - * Support of research supplies, expenses, and equipment.
- The College competes successfully against the top 5 in many fields for faculty and grants.

The Risk

- First rate research has come at the expense of excellence in undergraduate instruction.
- Research excellence also faces the danger of decline for lack of adequate support.
- The College has squeezed every efficiency and economy out of the financial structure with:
 - * Associate Instructors providing inexpensive instruction;
 - * Supplies, expenses, and equipment suffering a relative decline;
 - * Computerization coming without adequate maintenance or support funds; and
 - * College expenditures being reduced by the equivalent of 40 faculty by 1989.
- Faculty salaries have fallen well below competitive levels within the Big 10 as indicated by:
 - * The best research faculty receiving better offers from competitive institutions;
 - * The compressed salary scale inhibiting the reward of excellence in research or teaching;
 - * Rewarding research more than teaching because outside offers reflect research; and
 - * Associate Instructors receiving \$1,000 less than at comparable Big 10 institutions.

Alternatives

- Reduce the number of students taught to permit reallocation:
 - * Very disadvantageous for the University.
 - * The University loses 3 dollars in tuition for every one the College saves.
- Increase the College share of Campus academic resources from 57% to 59%:
 - * The College provides 86% of the overhead and 81% of the grants and contracts.
 - * The College provides 66% of the academic unit credit hours.

Conclusion

- Research must remain excellent, even if the range of research must be reduced.
- Teaching must become excellent, even if the number of students served must be reduced.

EXCELLENCE AT RISK:

The College of Arts and Sciences, Indiana University

All of us at Indiana University have reason to celebrate the accomplishments of the faculty, students, and staff of the College of Arts and Sciences. Over the past decade the College has built and expanded its faculty and programs until today we approach world class status in many and first class status in practically all programs.

This achievement represents not only the accomplishments of College departments and faculty but also the support and commitment of Campus and University administrators, Trustees, State Legislators, foundations, donors, and external granting agencies. All have provided diverse resources helping the College become an outstanding center of teaching, research, and service for Indiana University.

While we have every reason to take pride in these accomplishments, the achievement won with such a commitment of energy, imagination, and resources stands in considerable danger of dissipation and disintegration, a threat made real by the inadequate resources available to the University and the College.

This report provides a perspective on the achievement of Indiana University's College of Arts and Sciences and outlines the dimensions of the risk of mediocrity that faces us in the next five years.

Teaching

Last year (1985/86) the College conducted a comprehensive review of departments in an effort to assess the quality of research and teaching. This year (1986/87) the College developed a cost analysis of College instructional programs. From these data, we have learned about the success of College instruction, as well as much about the weaknesses in our instructional mission.

Indiana University's College provides the major portion of first and second year undergraduate instruction for the Bloomington Campus students anticipating majors in most schools and in the departments of the College. While departments have made extraordinary efforts to provide quality undergraduate instruction for students in the first and second year of a collegiate career, we have failed to identify sufficient resources to provide excellent lower division instruction.

A substantial portion of 100- and 200-level courses are taught by Associate Instructors, graduate students whose dedicated performance in the classroom makes possible very inexpensive and sometimes excellent instruction. But even the majority of qualified Associate Instructors cannot provide the kind of sustained high quality instruction available from tenure track professors. Many Associate Instructors find themselves teaching courses for which they have inadequate preparation, others have assignments and loads too heavy for careful instruction. Many instructors teach without adequate supervision or training.

Compounding these difficulties, a substantial number of courses at the 100- and 200-level do not require written work. Undergraduates can complete two years of collegiate work with only minimal writing assignments. In spite of the almost universal recognition that writing skills often define the quality of an educated College graduate, Indiana University does not always insist on quality written work as a prerequisite for a successful collegiate career.

Equally disturbing, a significant number of freshmen and sophomores have never participated in a class of fewer than 100 taught by regular tenure-track faculty. After two years of collegiate work, a student may never have had a substantive academic conversation with a member of the faculty.

Indicative of our inability to handle freshman and sophomore students with the care and integrity they deserve, half of the undergraduates at Indiana University have not identified a major or professional concentration. Half of Indiana University undergraduates remain students in the University Division

without attachment to or supervision by a degree-granting academic program of the University. Although University Division advisors make heroic efforts to substitute for the academic involvement of faculty, departments, and schools, half of our students remain outside the majors and professional specializations of the University.

The situation for majors within the departments of the College is considerably better, as is no doubt the case with students matriculated into professional schools. Once a student has declared a major and been accepted into the appropriate department in the College, faculty become more accessible, class sizes for junior and senior courses smaller, the process of academic advising more focused, and the student's efforts better directed.

Even here, however, the College encounters great difficulties. High demand fields are oversubscribed. In some cases students with good credentials are unable to complete degrees in those fields. Class availability is severely restricted and while most students can complete a satisfactory course of study, the best pattern of courses often eludes students because of restrictions on scheduling and reduced availability of course sections.

Even at the junior and senior levels, students find major writing assignments few, contact with tenure track professors limited, and the availability of small classes, where critical thinking, learning, and discussion take place, rare.

In spite of these problems, the College's undergraduate program produces outstanding graduates year after year. These students manage to learn and study, find the faculty and majors they need, and graduate to pursue highly successful careers in business, government, and the professions. We provide a good education, but we do not provide an excellent education for the majority of students at Indiana University.

Research

The past decade has seen a major growth in the research capabilities of the faculty of the College. This comes as a result of an impressive investment of institutional and departmental resources into the promotion and support of research activities. Indiana University must be a world class university, and the hallmark of such an institution is outstanding research productivity in the humanities, the social sciences, the arts, and the sciences.

The College's contribution to Indiana University's success in research is impressive indeed. In our most recent survey of College departments, we found that over half the faculty work in departments judged outstanding in research productivity. Moreover, in departments with good research productivity, over half the faculty in those units have personal research records judged outstanding.

Our faculty's ability to capture significant external funding is impressive. About 81 percent of the Bloomington campus research grant revenue comes from projects sponsored from within the College of Arts and Sciences and about 86 percent of the overhead revenue generated on the Bloomington Campus from external research projects and grants comes from College programs.

Research excellence demands a major institutional investment, and the University, Campus, and College have all contributed substantial resources to achieve these results. The University and the Campus have provided new facilities and renovated old buildings, major support for research equipment and library resources, substantial investment in computing support, and programs to assist faculty in finding outside funding for their projects.

The College has effectively reallocated funds from instruction to research through various mechanisms. With strong support from the Campus, the College has reduced teaching loads for research faculty. More prevalent in the experimental sciences than the humanities, this shift of faculty time from teaching to research has produced a remarkable flowering of productivity in laboratories and projects of various kinds. Moreover it has allowed Indiana University to remain competitive with comparable

institutions in attracting and retaining the best faculty talent available.

By reallocating funds through the provision of research support personnel, the College has increased its commitment to research. Whether laboratory technicians, computer programmers, research technicians, or other support personnel, these technical people often make the difference between a mediocre research performance and an outstanding one. While some individuals in these roles are funded by external grants and contracts, the College has found it necessary to hire a significant number of technicians in order to maintain competitiveness and excellence in research. The pressure for such reallocations is becoming more intense as the number of disciplines requiring technical support for research expands.

The College has allocated student support funds to non-instructional purposes, primarily to support research institutes and programs in the social sciences and humanities. Some of these student support funds go to graduate assistants in libraries, archives, research institutes, or editorial offices. While the students receive excellent training in these positions, the faculty projects and research gain the assistance that makes the difference between modest and superlative research productivity.

The outstanding research performance of the College faculty brings with it a higher demand on auxiliary support services. Supplies and expenses adequate for a modestly productive faculty are inadequate for a highly productive faculty, computer support that is sufficient for a low level of research must be increased to maintain excellent research. As a result, the College has reallocated funds from general supplies, expenses, and equipment support, to research related supplies and equipment.

Because of this effort, Indiana University is now a major research university. Indiana University programs currently compete with the top 5 in many fields for faculty and research grants, and we compete successfully.

We must take great pride in the results of this institutional investment and in the commitment that has been required to achieve these outstanding results.

The Risk

On balance, then, the College of Arts and Sciences has succeeded in creating first-rate research and graduate departments. We have many departments and faculty who are the best or near best in their fields. But at the same time we have gradually lost some of the excellence that should characterize our instructional programs. Worse, even the research excellence won with a decade of improvement and institutional investment faces the danger of decline for lack of adequate continuing support.

In building the College into its current position of research and graduate excellence, we have squeezed every possible efficiency, every economy out of the financial structure invented to sustain this excellence. Associate Instructors, Adjunct and Visiting Professors, provide inexpensive undergraduate instruction, supplies and expenses have suffered a relative decline while grants and contracts have only been able to pick up some of the deficiency. Instructional equipment grows old and outdated, we accept computing equipment without adequate maintenance or support funds, and we receive research grants without funds to provide the institutional contributions promised the granting agencies.

In the period when funding for the university grew at reasonable rates and internal economies within the College produced savings that could be recycled into research support, these structural problems could be avoided. We no longer have that luxury.

In 1985/86 the College of Arts and Sciences began running a serious deficit, continued in 1986/87. In 1987/88 College expenditures must be reduced by 600,000 dollars (the equivalent of 20 faculty on tenure track). The following year College expenditures must be reduced by an additional 600,000 dollars (representing the loss of the equivalent of another 20 faculty).

This reduction in force represents a serious threat to the College's ability to sustain major research excellence and graduate program distinction and will strain the ability of departments to offer both lower and upper division instruction in a number of fields of high student demand. It is only the first of a series of equally serious financial problems.

Indiana University has been unable to allocate sufficient salary funds to the College of Arts and Sciences to maintain faculty salaries at competitive levels within the Big 10, not to mention the East and West Coast institutions which compete for our faculty. Compared to our Big 10 counterparts the College departments have steadily declined over the last three years. This effect, recognized by the State Legislature in providing attract and retain funds to the University, has not been reversed. While the Campus provided some extra funds to the College in recent years, the amounts proved insufficient as predicted in the College budget presentation in the spring of 1986.

The consequences of this situation are several. The best and most productive Indiana University faculty continue to receive substantially better offers from competitive institutions. While the College attempts to meet these offers, the funds available simply do not suffice. Moreover, it is much more expensive to meet outside offers than to provide a high quality individual with a competitive salary in the first place.

The reduced salary funds and inability to meet the salaries paid in comparable institutions affect the faculty unevenly. Because we must meet the market for entry-level faculty, but do not meet the market for more senior colleagues, the salary scale in many fields is greatly compressed. It is increasingly difficult to maintain a ratio of 1 to 2 to 3 between the salaries of beginning assistants, good productive fulls, and world class professors within the College, a situation that produces numerous outside offers because Indiana University cannot or will not reward excellence at the level of other comparable institutions.

By failing to provide minimal salary support to outstanding faculty the College has pushed its limited resources towards the reward of research to the neglect of teaching. This is so because the benefits of excellence in teaching accrue to Indiana University and not to the individual as a person in the national market for professorial talent. Few faculty receive outside offers based on their instructional excellence, hence the College's resources are continually tested by outside offers based on research. Faculty, as rational human beings, quickly discover that this institution will not provide support for teaching excellence and emphasize research productivity in order to compete in the only market available.

However disturbing the salary situation for faculty, the compensation provided teaching assistants offers another perspective on the underfunding of College instruction. Associate Instructors provide two important ingredients of a great university. They provide the human resources for an effective and inexpensive instructional program for introductory courses in many fields and they represent the quality graduate student population essential for the maintenance of a major university's graduate programs and for the preservation, transmission, and creation of knowledge that is the research university's primary function.

Whatever their field or current stipend, Associate Instructors at Indiana University receive about \$1,000 less than their counterparts at comparable Big 10 institutions. Given the remarkably low stipends involved (\$4,500 to \$7,500), this difference represents a major competitive disadvantage. Many of our programs are of such stature that graduate students will come no matter how uncompetitive our stipends appear. As the difference continues to grow, we find fewer and fewer superior students willing to suffer the financial hardship represented by that 1,000 dollar difference. The consequence is that many programs must settle for less qualified students, and the program's graduate quality declines at the same time the quality of teaching in the undergraduate program declines.

Because the College faces these problems at the same time it must reduce its resources by the equivalent of 40 faculty members, there are no internal sources within the College that can be reallocated. If the problems are not addressed, the research quality achieved at such cost and effort will quickly dissipate and the instructional problems outlined will intensify.

Alternatives

The College has identified two major alternatives for solving these problems, in addition to the possible hope of significant additional funding from the General Assembly.

Alternative 1: Reduce the Number of Students Taught in College Courses

If the College were to follow the lead of the School of Business and reduce its student enrollment by about 7%, we could save sufficient funds to improve teaching quality for the remaining students and address some of the most critical salary requirements. However, while a reduction of 7% in College enrollment will save about \$650,000, it will cost the University in lost tuition alone about three times that amount.

Our best calculation indicates that the College must increase faculty salaries on average by a minimum of 6% to stem the decline of our departments relative to their counterparts in the Big 10. Each percent increment in faculty salaries costs the College about \$310,000. The College will have to find additional funds internally to bring whatever percentage the Campus provides up to a minimum of 6% through the reductions described here.

The College needs a minimum of \$1,000,000 to bring current AI stipends into line with our competitors. In addition, we need \$240,000 to improve teaching effectiveness, \$220,000 to support departmental computerization, about \$200,000 for non-instructional research support, or a total of \$1.66 million in addition to faculty salary increments.

Alternative 2: Reallocation of Campus Resources to the College

The College contributions to Campus revenues clearly indicates that the College is significantly underfunded:

- The College provides 86% of the Campus generated overhead
- The College provides 81% of the Campus revenue from grants and contracts
- The College provides 66% of the Campus revenue from student credit hours
- BUT -- The College receives 57% of the Campus academic budget

The Campus underfunding of the College, 9% of the Campus budget for academic units, represents a subsidy of about 9 million dollars from College instruction to non-College programs and schools. This situation is reflected by the fact that the costs per credit hour of several units on campus are more than double what it is for the College.

To begin solving the current College financial dilemma, improve instruction, and address critical salary needs, the College needs to increase its share of the Campus budget from 57% to 59% (about 2 million dollars), leaving a continuing Campus underfunding of the College of about 7 million for the subsidy of non-College programs.

Conclusion

The Campus and College must address these issues immediately and forcefully. The College welcomes the opportunity of discussing with the Campus a phased increase in resources to avoid Alternative 1. Failing that, departments, faculty, and the College Policy Committee must provide the guidance needed to set priorities and reduce enrollment, programs, courses, or research as required.

We must maintain our excellent research capability, even if the range of our research programs may need to be reduced. We must achieve excellence in instruction, even if the number of students served must be reduced.

The College welcomes support or assistance from the Campus and the University in resolving these problems, and solicits advice from colleagues.

THE DATA

Figures

Figure 1: College Share of Campus overhead on grants and contracts

Figure 2: College Share of Campus grants and contracts

Figure 3: College Share of Campus credit hours and Campus academic budget

Figure 4: Relative Cost per Credit Hour: College compared to other schools

Assumptions

Amount required to meet salary needs:

Amount required to meet AI stipend needs:

Amount required to improve teaching effectiveness:

Amount required for departmental computerization:

Amount required for non-instructional research support:

Budget analysis of results of 7% reduction in College enrollment:

FIGURE 1: COLLEGE SHARE OF CAMPUS OVERHEAD ON GRANTS AND CONTRACTS

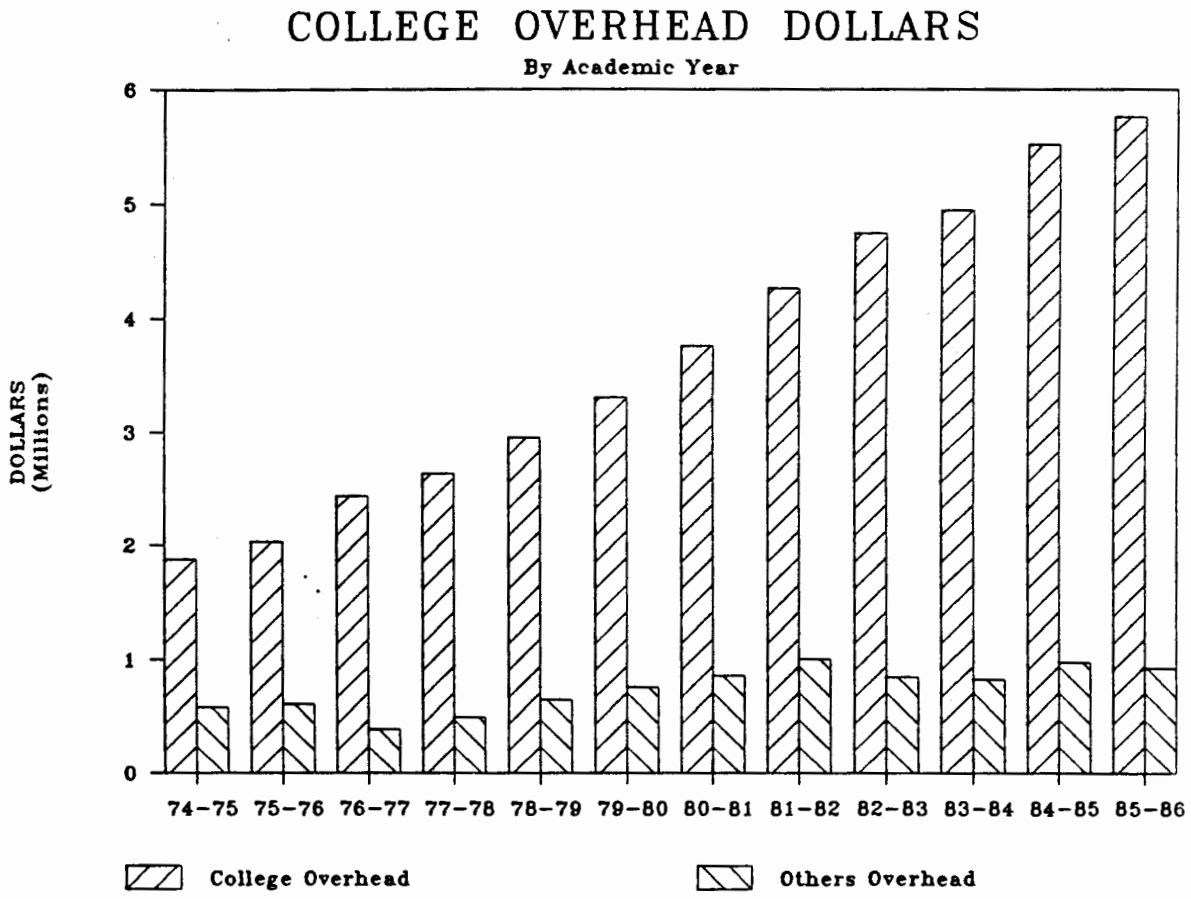


FIGURE 2: COLLEGE SHARE OF CAMPUS GRANTS AND CONTRACTS

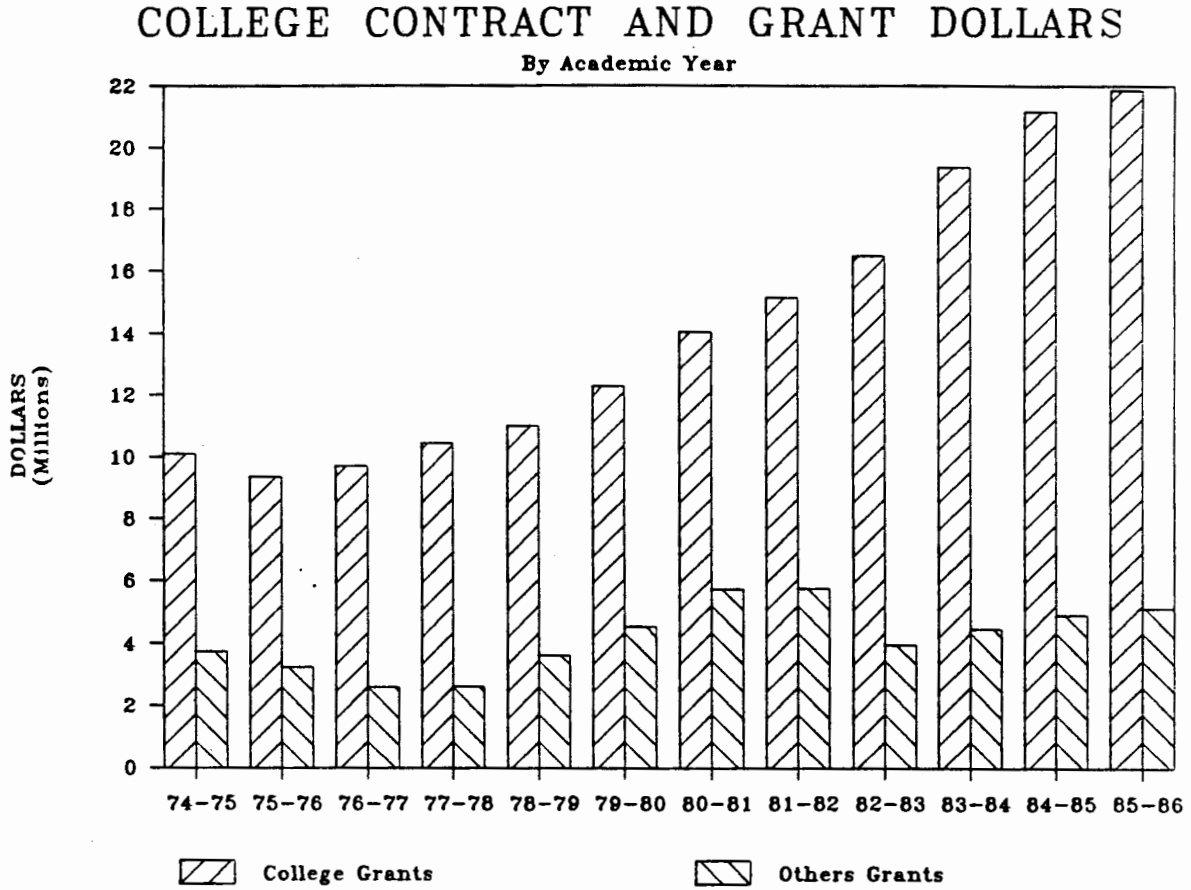


FIGURE 3: COLLEGE SHARE OF CAMPUS CREDIT HOURS AND CAMPUS ACADEMIC BUDGET

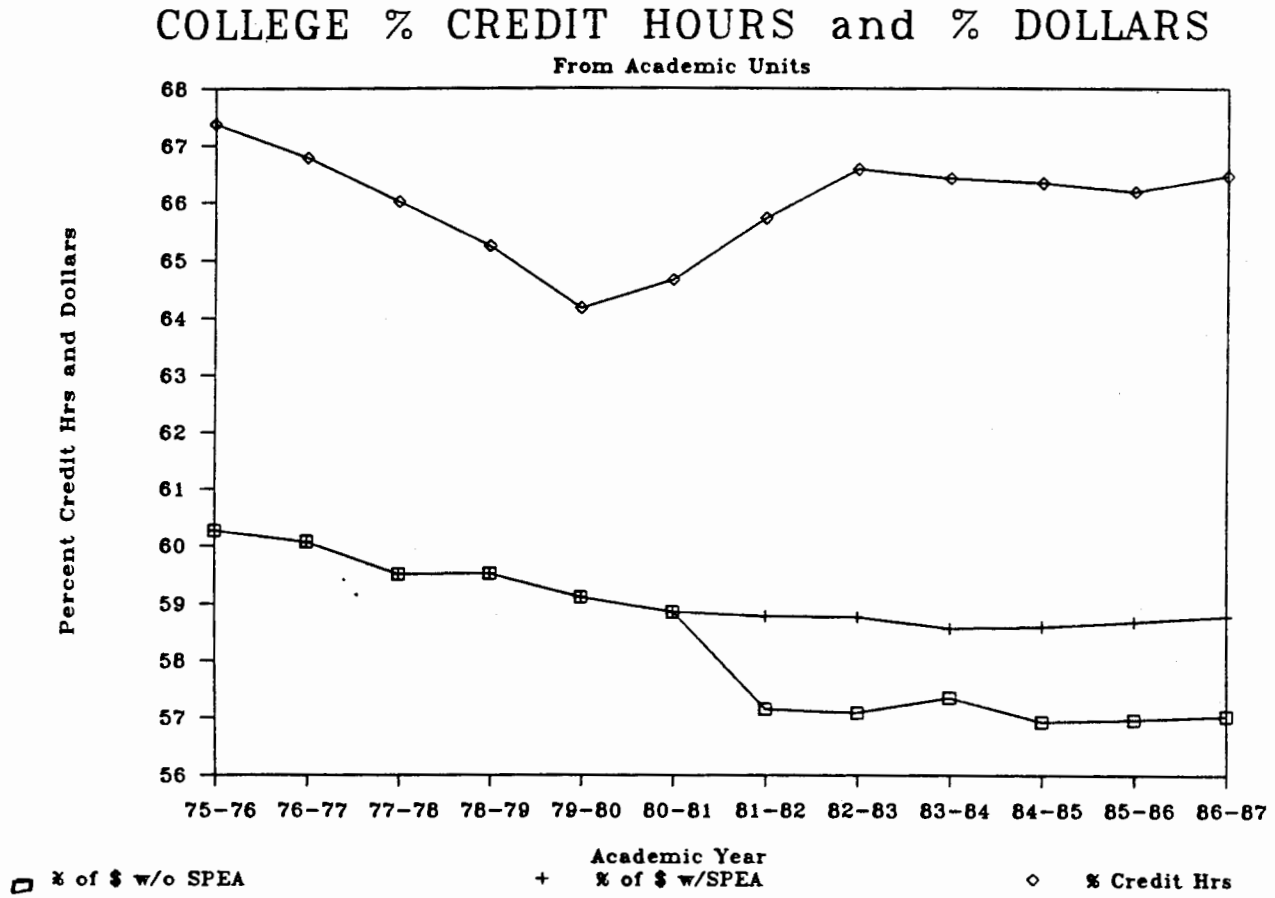
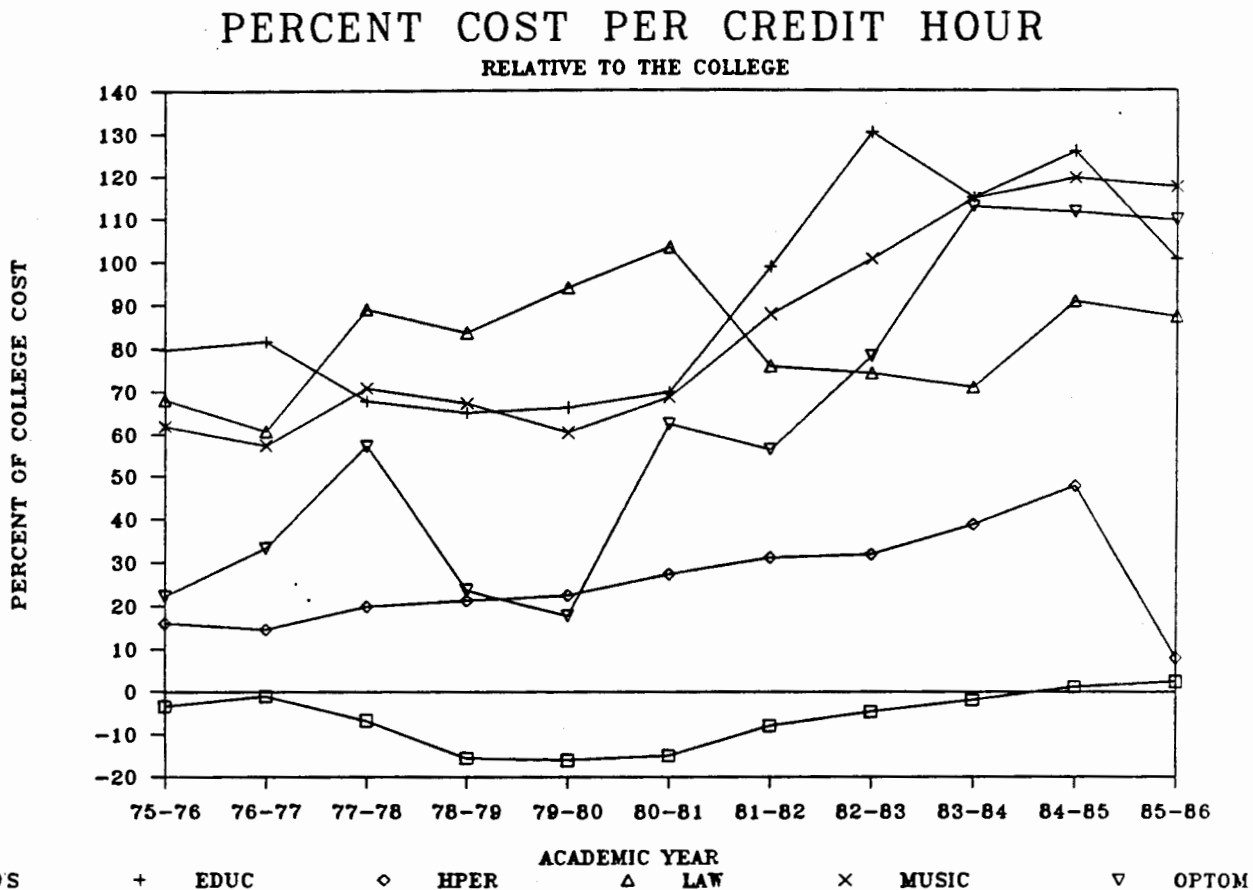


FIGURE 4: RELATIVE COST PER CREDIT HOUR: COLLEGE COMPARED TO OTHER SCHOOLS



ASSUMPTIONS

Amount required to meet salary needs:

An analysis of preliminary data provided by chairs shows that College faculty lost ground with respect to their peers at other Big 10 Universities from 1985-86 to 1986-87. An absolute minimum salary increment of 6% is required. The difference between what the Campus makes available to the College and 6% must be obtained within the College budget.

A one percent increment in salaries costs the College \$310,000.

Amount required to meet AI stipend needs:

An analysis conducted in connection with the preparation of our 1986-87 budget proposal showed a need for an increment of approximately 20% in funds for AI stipends. We received approximately 5%. As anticipated, comparisons this year are dismal, and our AI stipends average about \$1,000 below the competition across fields.

To bring our AI stipends into line with those of our competitors will cost approximately \$1,000,000.

Amount required to improve teaching effectiveness:

An incentive program for 80 faculty to teach one additional course (subject to guidelines on class size, written work required, and course evaluation procedures) requires about \$3,000 per faculty member.

The cost of this program is $80 \times \$3,000$ or \$240,000.

Amount required for departmental computerization:

Technical staff requirements:

Total commitment over the next five years will be approximately 10 FTE at \$30,000 each, for a total of \$300,000.

Known cost for 1987-88: 3.5 FTE at \$30,000 or \$105,000

Additional S&E:

Long term commitment will be \$1,000 per unit for 50 units or a total of \$50,000.

Cost for 1987-88: \$1,000 for 10 units or \$10,000

TOTAL Departmental Computerization Cost for 1987-88 will be \$115,000.

Amount required for non-instructional research support:Technical Staff (non-CER):

Commitment of 2 FTE at \$30,000 or \$60,000.

Technical Staff Computer Science CER Grant:

Total College commitment by 1990-91 is projected to be \$245,000.

Cost for 1987-88 is \$82,000.

Workshops, Seminars, Distinguished Visitors:

This includes various kinds of similar support committed in negotiation to match outside offers or attract outstanding faculty.

Cost for 1987-88 is about \$60,000.

TOTAL Non-Instructional Research Support:

Cost for 1987-88 is about \$202,000.

Budget analysis of results of 7% reduction in College enrollment:Revenue Loss to the Campus:

1985-86 College 100-200 level credit hours =	332,790
Credit hours lost through 7% reduction =	23,295
Weighted average of resident/non-resident fees/cr:	\$ 84.
Tuition revenue lost through 7% reduction = (NOTE: does not include lost dorm income.)	\$ 1,964,234.

Savings to the College:

Cost/section:	AI with 27 students =	\$ 1,800.
	Visiting Faculty with 60 students =	\$ 6,000.
11,650 credit hours taught by AIs eliminated or 144 sections		
11,650 credit hours taught by Visitors eliminated or 65 sections		
Savings from 144 AI sections eliminated =		\$ 258,889.
Savings from 65 Visitor sections eliminated =		\$ 388,333.

TOTAL SAVED BY COLLEGE = \$ 647,000.

TOTAL LOST BY CAMPUS = \$ 1,964,234.

(revenue lost)/(cost saved) = 3.03