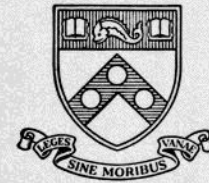


*PENNSYLVANIA:
ONE UNIVERSITY*



*Report of the
University Development Commission
January 1973*



**PENNSYLVANIA:
ONE UNIVERSITY**

Following is the official text of the Report of the University Development Commission. Comments and additional proposals may be forwarded to the administration by March 30 through Dr. Robert H. Dyson, Jr., at the Commission Office in the University Museum.

TO THE UNIVERSITY COMMUNITY

It is with great pleasure that I forward to you the report of the University Development Commission.

It is the result of the widest investigation and consultation process since the Educational Survey of the early 1950's. The program of review, evaluation and consideration has already begun in the University Council, the Senate Advisory Committee, the Council of Academic Deans and the Trustees' Committee on Resource Evaluation.

We are deeply in the debt of those members of our University who, under the able stimulus and guidance of Professors Robert Dyson and Eliot Stellar, worked so devotedly for the past year on the Commission.

The Commission ends its report by summoning "one university" to a decade of excellence. I know we are equal to that task.


Martin Meyerson
President

TABLE OF CONTENTS

1. Reallocation . . .	3
2. Undergraduate Education . . .	9
3. Graduate Education . . .	13
4. Professional Schools . . .	14
5. Black Presence . . .	17
6. Intrauniversity Cooperation . . .	18
7. Continuing Education . . .	20
8. Interinstitutional Cooperation . . .	21
9. Endowed Professorships . . .	23
10. Endowed Scholarships and Fellowships . . .	
11. Educational Living Patterns . . .	25
12. Library . . .	26
13. Audio-Visual Resources . . .	27
14. Calendar . . .	28
15. Visual Environment . . .	28
16. Creative and Performing Arts . . .	29
17. Future Planning . . .	29
18. Summary . . .	30
19. Priorities . . .	31
20. Conclusions . . .	32
Minority Statements . . .	32

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PENNSYLVANIA: ONE UNIVERSITY

Periodically during its long history the University has found it necessary to debate its purposes, its organization, and its intellectual and financial needs. It did this at its founding, again after the Revolution and after the War between the States, and several times in the later nineteenth and early twentieth centuries. In the beginning Benjamin Franklin called for a school in which students would acquire "an ability to serve Mankind, one's Country, Friends and Family." Nearly two and a half centuries later the former President of our University, Gaylord Harnwell, in his first *Annual Report* (1955) reminded us that our distinctive character lay in part in our ability "to achieve a balance between education designed to serve cultural ends and education designed for vocational needs," proving the words of the University's historian Edward Potts Cheyney that the University is "not so much a drama, but rather a theme with variations" (*History of the University of Pennsylvania 1740-1940*, 1940).

The last great debate on this theme with variations was the *Educational Survey* of 1954-59 which led to the *Integrated Development Plan* of 1962. The success of this effort resulted in the building of a major campus and the broadening of the student body and faculty. From a largely regional institution Pennsylvania was transformed by its own efforts into a national University. At the same time the tides of national interest led to a vast expansion of its research activities and an unprecedented growth in its graduate program. In 1971 the study and the report of the *Task Force on University Governance* led to organizational and structural changes in the decision-making processes of the University which are responsive to current need and function. Consequently, the University we see today is quite unlike that of 20 years ago not only in the quality and sophistication of its faculty and students, but also in the level of expectation which these groups now bring to the campus. Rightly they raise models of achievement elsewhere and compare them with the unexploited opportunities around us. Old ways must bend to these new expectations and opportunities must be seized if we are to make full use of the demands for improvement expressed by our faculty and students. We must have the courage to face our needs, our weaknesses and our strengths, with the same objective vigor and imagination which we bring to bear on our scholarly studies. We must find a way to the future which is appropriately a Pennsylvania way.

The current search for such a way was initiated by President Meyerson in his statement on *Directions for the University of Pennsylvania in the Mid-Seventies* in January 1972. In this document the President underscored the need for action in relation to the deteriorating financial situation in which the University found itself. "This much is certain," he said, "we cannot simply continue as before." In reviewing the options before the University he pointed to three possibilities: to try to become state related; to cut University activities, salaries

and expenses to a minimum; or to raise more new money than ever before and to raise it primarily for qualitative improvements in programs and in the people who conduct those programs. But he warned that success in the third option, which was the one he strongly recommended, would be impossible unless it became clear that "(1) the University is putting its own house in order financially and managerially . . . that (2) There is a real determination to reallocate existing resources in terms of articulated priorities, and . . . that (3) Those priorities will make Pennsylvania far more outstanding than it is now in learning and research."

In February 1972, President Meyerson appointed the University Development Commission and charged it to review his proposals, which included the reallocation of existing funds and the planning of future growth using the concept of "selective excellence" to strengthen undergraduate education and to promote particularly strong graduate fields to national rank. The Commission was to examine other available plans, and advise him in some detail how in the light of the University's needs a major funding effort could achieve a leap forward in educational excellence. While the overall thrust of the Commission's work was thus academically oriented, it nevertheless contained a strong fiscal component. In no time at all the Commission concluded that nothing less than a general overview of existing planning in all aspects and by all segments of the University could serve this purpose. This vantage point gave the Commission a unique opportunity to view problems across historic and structural boundaries within the institution and led to the development of a *One University* concept.

The concept of *One University* is based on the conclusion that our greatest potential strength and uniqueness lies both in our historic linkage of professional education with the liberal arts and sciences, and in our contemporary advantage of the close physical proximity of our schools on one campus. The key to the philosophy underlying the concept is the thought that the University of Pennsylvania should be an institution which sees life whole. To see life whole means to be concerned with the past, the present and the future, to see root causes of the condition of the earth and man, and to see the condition itself both in its obvious and in its more subtle and immanent characteristics.

In the long view, professions such as law and medicine and architecture have demonstrated that they function best when they do not operate in isolation from the rest of the University. There are perhaps three outstanding reasons for this. First, each profession functions in a cultural environment and derives its broadest context from that culture. The culture of Western man has played this formative role in ways of which we are aware for over 3000 years. But the evolving world culture will also include a major and more ancient Oriental stream, as well as an Indian and an African stream—to men-

tion only the major contributions. Second, the professions function in a social context. The social and economic system based on the national state, the industrial revolution, and universal literacy has evolved in the Western culture only in the last 300 years. As a human institution, it is new and relatively untried, and as we look around us we can see that it is beset by stresses and difficulties—some of them contributed to and some of them assuaged by the professions. Third, the professions are based upon institutions, technologies, and sciences which are rapidly changing. In all probability the professional who is educated in the 1970's will be unable to practice effectively in the 1990's without a major effort to assimilate these changes. The capacity for reacting to the changed basis of a profession implies an understanding of that basis. Consequently, the best professional schools require that their students have a sound training in the basic disciplines relevant to their work; this indeed may be more important in the long run than the professional skills themselves.

On the other hand, the arts and sciences which are essential to sound training in the professions cannot afford to exist without contact with the real world, some of which derives from the professions themselves. In legend it is told that Hercules defeated Antaeus by holding him in the air and depriving him of contact with his mother Earth. Scholarship which is entirely self-sufficient and self-justifying risks the same defeat. It is not at all clear how the findings of the professions about the real world can properly feed back into the greater body of knowledge which a university comprises, but a more formal recognition of the problem and a more systematic exploration of it could not fail to be useful.

It should be recognized in any event that professional education often does combine the academic disciplines in a creative way in order to provide theoretical foundations for professional missions. Such novel combinations often give rise to significant developments in the academic disciplines themselves. Thus the intellectual innovations of the professional schools filter to the "academic departments" and become absorbed into the mainstream of the work of the arts and sciences. The intellectual overlap between arts and sciences and the professional schools is great and it is important that the core of unity between schools and departments be recognized and fostered.

In making these observations, the Commission does not presume that the University should aim to solve all of the problems of the world immediately or indeed over a longer perspective. In the first place, the University is essentially without resources, without institutional influence, and without power—except for the power of ideas. It cannot expect to change the world, but it can expect to train people and generate ideas which may change the world. In any event, it must also be recognized that universities have many functions which can only be exercised over a long period of time. One of these functions is the simple preservation of knowledge. A second is the protection of dissent. A third function is the exploration of problems which may take many years to resolve. A fourth is the creation of knowledge whose immediate uses are unknown but which may ultimately become important. The university, except in the most ascetic and self-denying circumstances, is indebted to society for major support, but that support cannot usefully be achieved by giving up all or most of these principal functions. To do so is bound to be self-defeating. If the University cannot survive by convincing society of the usefulness of its true functions, it will not survive as a university.

Having made these observations, it is apparent that the unique contribution which Pennsylvania with its *One University* theme can make to higher education will be found precisely in the recommended increased interaction between research and training for the professions on the one hand, and research and training in the arts and sciences on the other.

For this reason, while divisions are necessary in order to separate and clarify the functions of the different parts of the university, easy interaction is also necessary. Given the complexity of our institution the concept of *One University* lends itself to a program for academic reform and development aimed at achieving these ends. The overall program falls naturally into two dimensions: *Programs for Excellence* and *An Environment for Living and Learning*.

Programs for Excellence in *One University* as outlined in the sections of the report which follow stress the reformation of undergraduate education in the direction of an early and intensive introduction to the University with optional modes of study in later years and earlier entrance into graduate and professional programs; the development of selective excellence among graduate programs; the provision of opportunity for professional orientation at the undergraduate level (but not primarily professional studies); the more effective development of integrative programs between schools, and of centers, institutes, and other catalytic organizational mechanisms promoting interaction within the University; an improved program of Afro-American Studies; increased participation of the University in academic activity on an international level; increased integration of continuing education and regular educational programs; and the use of endowed professorships and fellowships as a means to achieve these ends.

Programs for Excellence without an *Environment for Living and Learning* which supported them would be doomed from the beginning to partial success. Therefore, the second group of recommendations concerns itself with the need to make the campus attractive and liveable and to update the tools and systems we need for scholarship and teaching. Now that we have completed the basic physical plant and have drawn together a resident population, we have the opportunity to provide this new population with cultural activities on the campus while at the same time supporting some of our academic programs such as music, fine arts, theatre, etc. We have the potential to develop our residential system into a combination of unstructured residences and residences with educational programs catering to a variety of academic interests. We can increase the representation of foreign cultural achievements on campus through visitors' programs. We can make our library increasingly useful by initiating the best information retrieval systems and restore its national standing through increased selective book purchases; and we can augment available modes of study through the judicious development of audio-visual resources. We can restore to a position of eminence and activity the nation's first student union—Houston Hall. And with careful effort we can vastly improve the visual appearance of the campus.

Each of these dimensions of the *One University* concept consists of a number of recommendations drawn from the reports of work teams chaired by members of the Commission as described in the Commission's *Interim Report* of last May. The chairmen of the work teams were assisted by a large number of other members of the University in formulating these reports. In November and early December abstracts of what the Commission felt were the important points in these reports were circulated for University comment through the University Council, the *ad hoc* Senate Committee on Academic Priorities, the Council of Academic Deans, the department chairmen and the administrative officers. In the light of this constructive comment the Commission reviewed and revised these drafts and adopted the present document. The Commission wishes to thank the several hundred students, faculty and administrators who helped it in its work. Although the report necessarily deals with fiscal policy in part, the major thrust follows the theme laid down in the *Interim Report* that the success of any program can only be ensured by the quality of the individuals in that program.

Over the past decade there has been a measurable qualita-

tive increase in both faculty and student body at Pennsylvania. It is the aim of the program proposed here to maintain that momentum and to make a comparable improvement in the programmatic structures through which this community operates. For this reason we do not foresee large capital expenditures for new physical plant, although we recognize that previous irrevocable capital commitments must be met. The University must be most judicious in committing itself to any capital projects beyond these in view of the pressing need for limited renovations and alterations of older buildings and the necessity for adequate maintenance of the many new buildings recently completed. Implicit in this point of view is the opinion that the student body should remain about constant and that the faculty should increase by only a modest percentage.

Many of the proposals contained in the report have rough estimates of annual program costs. The translation of estimated annual costs into total initial resource needs, of course, depends upon the contemplated number of years of support. At one extreme is a *one-time program expenditure* which, like building and equipment, concentrates total resource needs and total expenditures in the same very short span of time. At the other extreme is the *endowment fund*, established with initial resources sufficient to generate a certain level of income and capital gains in perpetuity. In between, are *annuity funds* in which the resource base is sufficient to return—from income and a portion of the actual capital base—a certain amount per year for a fixed number of years.

Unquestionably, endowment is the most secure. Law and tradition have generally discouraged philanthropic organizations from dipping into capital. Furthermore, the notion of supporting an enterprise forever may be an important consideration of a potential donor. Other things being equal, then, it is more comfortable to have \$X a year in perpetuity than the same \$X for some shorter span of time.

Other things, however, are not always equal. It costs considerably more to assure a given annual dollar flow for perpetuity than for, say, 20 years, and a great deal more than to assure that cash flow for only 10 years. The extra costs are funds which might otherwise be available for other programs. For example, \$1,000,000 invested in traditional endowment should provide about \$60,000 a year in income. That same \$1,000,000, however, invested in a 20-year annuity would bring in \$87,185 a year; in a 15-year annuity \$102,963, and in a 10-year annuity, \$135,868. Or, expressed another way, to assure \$350,000 a year *forever* would require an initial capital amount of \$5,833,333; to collect \$350,000 annually for 20 years would take an initial capital base of just over \$4 million; and a 10-year annuity would require only \$2,576,000.

In general, the Commission believes the emphasis should be on endowment. We are relatively underendowed for an independent university, and must as a result absorb an undue proportion of costs out of governmental or tuition revenues or out of annual giving. Some of the program possibilities described in the report, however, need start-up costs or plant and equipment. Others may be so avowedly experimental as to suggest current—or at most annuity—funding. Our priority upon endowment, then, should not preclude our looking in some instances toward lesser amounts of resources for shorter periods of time.

Of the Commission's recommendations which lead to funding efforts, many will necessarily have to be refined in the months to come in much finer detail. They will also have to be appraised by our Development Office for feasibility in relation to potential sources of funding. The Commission's report contains, in addition, a number of recommendations which can be acted upon administratively, and others which require further study. These recommendations are included with the clear purpose on the one hand of providing mechanisms for implementation and action and, on the other, of

maintaining the University's involvement and momentum in the current process of planning and evaluation. These recommendations rest squarely on the belief that we can solve our own problems and that the Administration should make far more *ad hoc* use of the expertise of our University family for this purpose than ever before.

The University Development Commission has completed its task. It renders its report in the hope that its recommendations will move Pennsylvania towards the vision of *One University*. The Commission is confident that the entire University will respond constructively to the challenge of its own future.

1. REALLOCATION

Like all private universities, the University of Pennsylvania has found expenses rising more rapidly than income. This trend created deficits of approximately \$2,300,000 in fiscal 1970, \$1,200,000 in 1971, and \$1,900,000 in 1972. The University's operating reserve fund of \$1,600,000 was exhausted to reduce the 1970 deficit to \$700,000. We will have a balanced budget in 1973 due to fortunate circumstances. However, new deficits are possible in the years beyond. The Commonwealth of Pennsylvania provides the University with a yearly appropriation. The appropriation itself has risen since 1966, but as a fraction of our budget it has declined. The Commonwealth may not increase its appropriation significantly. Alumni annual giving to Pennsylvania also increased since 1966, but too slowly to cover deficits. Tuition increases large enough to meet deficits would price the University out of the market. Thus, we must meet our own problems by our own actions and especially through fiscal control.

Fiscal control must have clearly stated purposes. The first purpose is survival. Deficits cannot accumulate indefinitely. The second purpose is to provide a strong base for new fundraising. Fiscal control must generate funds for adequate planning and careful initiation of new programs. Fiscal control which prevented new programs and strangled important but youthful ones would ultimately cause stagnation. Third, fiscal control must increase the quality of the University. Not every part of Pennsylvania is of equal quality. Fiscal control should go hand in hand with academic review to force qualitatively poorer parts of the University to improve or vanish, thus raising overall quality.

Two main approaches exist to fiscal control. One cuts the expenses of all units by a fixed percentage. The other sets targets for units which generate both expenses and income and places limits on expenditures by units which generate only expenses and no income. Either approach would accomplish the first two goals of fiscal control. The across-the-board approach tacitly assumes that everyone's present level of support is equally justified. The target procedure, however, permits clear judgments of cost-benefit relationships. We therefore have taken the target approach. In setting targets, all parts of the University, academic and nonacademic alike, are candidates for reduction of deficits or expenses.

Analysis of Income and Expenses

Table 1 gives an overall picture of the expenses and income of the University for fiscal years ending June 1971 and June 1972, and referred to hereafter as fiscal 1971 and 1972. These and all subsequent figures were supplied by the office of the Associate Provost for Planning. The table divides the University into academic programs and other subvention centers. The latter include the Department of Intercollegiate Athletics (DIA), the University Museum, Graduate Hospital and the Hospital of the University of Pennsylvania (HUP). The academic programs generate income from tuition less student aid, and from gifts, endowments, grants and other sources. They also generate direct costs, which are the total of the Deans' budgets and personnel benefits. If a program vanished overnight by some magic, its income and direct costs would

immediately disappear. Each program also generates indirect costs attributable to it, such as expenses for libraries, operations and maintenance of buildings, research administration, and the like. Table 1 separates from total indirect costs the net costs of auxiliary enterprises. These enterprises include the residential halls and dining services. Deficits from auxiliary enterprises have been allocated among schools based on student use of these enterprises. Total indirect costs in Table 1 sum the net auxiliary enterprise costs and other indirect costs. No provision has been made for depreciation of physical plant; steps must be taken to include such a provision in attributable indirect costs. Besides allocatable indirect costs, programs also generate overhead costs from using central administration and general administrative offices. These general overhead costs are allocated to schools on a flat percentage basis. The difference between income of academic programs and the total of direct costs, indirect costs, and general overhead shows the amount of subvention which academic programs require from undistributed University income.

Table 1 also shows subventions which other centers needed after applying income towards costs. Details appear in Table 2. The subvention for the Hospital of the University of Pennsylvania arises entirely from indirect costs of the Hospital to the University. The subventions for Graduate Hospital, however, include in 1971 and 1972 substantial deficits in direct costs in addition to attributable overhead costs. These deficits could be covered as a result of current negotiations with Blue Cross.

The total subventions are the sum of academic and non-academic subventions. These are met from undistributed University income, which Table 1 displays by sources of origin. The Commonwealth appropriation excludes aid specified for the Medical School, the Veterinary School, and the Museum. These income items are included for the two schools in Tables 3 and 4 and for the Museum in Table 2. The last line of the income section of Table 1 shows total undistributed income. The calculated University deficit is the difference between

total subventions and total undistributed income. The official deficit confirmed by the auditor appears in the final line of the table for fiscal year 1971. The final audit for fiscal year 1972 is not complete. Differences between the last two lines reflect rounding errors in calculations underlying Table 1.

Auxiliary Enterprises. Tables 1 and 2 immediately point out two areas for prompt action. One is hospitals; we will return to this problem below. The other is net auxiliary enterprise costs. The University should not profit from its students by providing them food and housing. On the other hand, the University has recognized in principle for years that it should not lose money on these ventures. The Commission therefore recommends:

1. *That net auxiliary enterprise costs must be eliminated.* A plan already is available to achieve this for residence halls within four years. The other major source of auxiliary enterprise costs is the Dining Service. If its losses cannot be eliminated in three years, the University should liquidate the Dining Service and wherever possible find other positions for affected employees.

Analysis of Academic Programs by School

Tables 3 and 4 contain a more detailed analysis of academic activities. This analysis could be conducted in three different ways: by schools, by departments, or by programs. Everybody is familiar with schools and departments. Analysis by program would involve identifying major academic efforts, such as Ph.D. training, which usually bridge across departments and schools. This type of analysis leads to so-called program budgeting, techniques for which are under development. Application of these techniques will require identification of responsible authorities to exert fiscal control over programs. Program budgeting, however, is not far enough advanced to provide the framework for examining our immediate problems. We urge that program budgeting be developed and tested as quickly as possible. This will require help from faculty in devising realistic ways of obtaining information on

TABLE 1

University Finances
(in thousands of dollars)

	1970-71	1971-72
ACADEMIC PROGRAMS		
1. Income	87901	93943
2. Direct Costs	83560	88062
Deans' Budgets	77133	81284
Personnel Benefits	6427	6778
3. Indirect Costs	10922	12140
Net Auxiliary Enterprises Cost	371	1433
Other Indirect Costs	10551	10707
4. General Overhead	9266	10050
5. Total Academic Subventions (2+3+4-1)	15847	16309
OTHER SUBVENTIONS		
DIA	1237	1292
Museum	30	322
Graduate Hospital	504	494
HUP	569	682
6. Total	2340	2790
7. TOTAL SUBVENTIONS	18187	19099
Undistributed Income		
Commonwealth of Pennsylvania (General)	8060	8753
Endowed Scholarships	2049	2652
Net Alumni Annual Giving	1430	1567
Temporary Investment Fund	1266	945
Unrestricted Endowment	516	608
Unclassified University Income	3728	2648
8. Total Undistributed Income	17049	17173
UNIVERSITY DEFICIT (7-8) (Calculated)	1138	1926
(Official)	1254	1931

TABLE 2

Other Subventions
(in thousands of dollars)

	1970-71	1971-72
DIA		
Income	798	831
Direct Costs	2035	2106
University Subvention	1237	1292
Museum		
Income	1088	1051
Direct Costs		1275
Subtotal		(224)
Indirect Costs		98
University Subvention	30	322
HUP		
Income	37314	37336
Direct Costs	37314	37336
Subtotal	0	0
Indirect Costs	569	682
University Subvention	569	682
Graduate Hospital		
Income	12535	13126
Direct Costs	12847	13376
Subtotal	(312)	(250)
Indirect Costs	192	244
University Subvention	504	494

how they spend their time. Ultimately, program budgeting or other methods may yield more useful fiscal analyses. At that point, rules for fiscal control should be revised.

We therefore return to schools or departments as the units for fiscal control. We prefer to use schools. Both deans and department chairmen could cut expenses. Deans are better able to raise income than are department chairmen. (Fund-raising activities, however, must be closely coordinated by the central administration). Analysis at the school level also reduces the number of individual units involved and permits greater flexibility by aggregation. Thus, Tables 3 and 4 involve analysis by individual schools. Table 3 is for fiscal 1971 and shows for each school its income, direct expenses, the difference between income and direct expenses, total indirect costs and general overhead, and University subvention. Table 4 is for fiscal 1972. The most crucial column in Tables 3 and 4 is the third one. Table 5 extracts from Tables 3 and 4 those instances of schools whose direct costs exceeded income. The total of these differences appears at the bottom of the table for each fiscal year.

Table 5 shows that requiring each school at least to match income and direct costs would significantly improve the fiscal position of the University. Meeting this goal is the minimum which should be required of any school, unless an explicit decision is made to the contrary. Up to now, such decisions have been implicit and have undermined fiscal responsibility. The Commission therefore recommends:

2. That any school whose income in fiscal 1973 is less than direct costs receive three years in which to equalize them. One-third of the difference for 1972 should be eliminated each year. A school can meet the requirement by a combination of raising income and/or reducing expenses. In any case, the school also must maintain or improve its quality. A school which fails to meet its target within three years would then undergo a double review. First the Council of Deans could recommend subsidizing the school involved. Deans of other schools would have to plan how to distribute the deficit of the

affected school among themselves as part of their own direct costs. Should the Council of Deans recommend not to subsidize the affected school, the Board of Trustees must then appoint an *ad hoc* committee from its own membership, along with outside advisors. This committee acting on the advice of the President and Provost would determine whether to maintain the affected school. If the Trustees decide to keep the school, they have to specify how to finance the deficits of the school. If both the Council of Deans and the Trustees refuse to support the school in question, then the school must be phased out.

Schools whose incomes now exceed their direct costs still receive subvention from the University to cover allocatable indirect costs and general overhead. This is a perfectly natural situation. A school whose income exceeds direct costs generally should maintain at least its present margin of excess. The Commission therefore recommends:

3. That a school whose income now exceeds direct costs should meet financial targets in keeping with past performance; the President and Provost acting with the advice of the Budget Committee should set the targets for each coming fiscal year. If a school falls below its target or if any school after 1976 generates direct costs in excess of income, immediate plans must be formulated by the Dean of that school to rectify the situation within two years. We assume that schools will be responsible and wherever possible will try to increase income and hold down expenses. Such responsibility is vital to a great university.

Hospital and Clinics. We come now to clinical facilities owned by the University. Certain schools need these facilities in order to conduct their teaching and research programs. Responsibility for direct cost deficits generated by these facilities should rest upon the schools concerned. Without the presence of the appropriate schools at Pennsylvania, the University would not own the clinical facilities in the first place. The University should continue to provide subvention for indirect costs. The Commission recommends:

TABLE 3
Program Costs 1970-71

	1	2	3	4	5
			(1-2)		(3+4)*
	In-	Direct	Sub-	Total	Univ.
	come	Ex-	total	indirect	sub-
		penses		cost	vention
				plus	
				over-	
				head	
Annenberg School	377	534	(157)	183	340
Annenberg Center	266	389	(123)	121	244
Graduate Arts & Sci.	2241	2642	(401)	597	998
College and CW	14758	15271	(513)	5312	5825
Law	2335	2218	117	799	682
Graduate Education	1199	1615	(416)	457	873
Social Work	939	1038	(99)	244	343
Fine Arts	1957	2322	(365)	703	1067
Wharton	9777	8379	1398	1965	572
Engineering, less Moore	3502	3689	(187)	780	967
Moore	2303	2269	34	522	488
Medical	33600	30106	3494	4793	1301
Dental & COHR	3883	3979	(96)	1076	1169
Veterinary & Monell	6353	5936	417	1139	722
Nursing	1412	1487	(75)	173	248
Allied Med. Prof.	504	515	(11)	140	151
CGS	945	336	609	409	(200)
Evening School	393	346	37	124	77
Summer School	1157	489	668	651	(18)
Total	87901	83560	4331	20188	15849

* Numbers in parentheses are negative.

TABLE 4
Program Costs 1971-72

	1	2	3	4	5
			(1-2)		(3+4)*
	In-	Direct	Sub-	Total	Univ.
	come	Ex-	total	indirect	sub-
		penses		cost	vention
				plus	
				over-	
				head	
Annenberg School	421	559	(138)	190	329
Annenberg Center	260	388	(128)	191	319
Graduate Arts & Sci.	2186	2229	(43)	601	644
College & CW	15779	16886	(1107)	5650	6757
Law	1957	1727	230	915	685
Graduate Education	1495	1812	(317)	485	802
Social Work	1017	1112	(95)	248	343
Fine Arts	2079	2207	(128)	764	892
Wharton	10050	8365	1685	2205	520
Engineering, less Moore	3641	3616	25	811	786
Moore	1831	2231	(400)	549	949
Medical	36875	32919	3956	5367	1411
Dental and COHR	4162	4495	(333)	1202	1535
Veterinary & Monell	7264	6314	950	1342	392
Nursing	1468	1537	(69)	180	249
Allied Med. Prof.	548	545	3	156	153
College of					
General Studies	1079	364	715	615	(100)
Evening School	342	226	116	147	31
Summer School	1489	530	959	572	(387)
Total	93943	88062	5881	22190	16309

* Numbers in parentheses are negative.

4. That a direct cost deficit in any clinical facility must be met by the school for which that facility exists. The school involved must increase its income or reduce its expenses so as to meet the deficit caused by the clinical facility. Alternatively, the school can reduce the size of the clinical facility, change its fiscal policies, or take other appropriate steps.

Hospitals present the University with a particularly complicated problem. Pennsylvania is unique among private medical schools in owning two hospitals. The School of Medicine must control sufficient core clinical facilities for its teaching and research. As long as the University keeps its two hospitals, they should be required to spend their reserve funds before imposing any deficit on the School of Medicine. Responsibility for fiscal viability of the hospitals begins with the Dean of the School of Medicine who also is Director of the hospitals.

The status of Graduate Hospital is particularly critical now. It has run deficits steadily in the past few years. Its future academic benefits to Pennsylvania compared to its possible future costs are the subject of debate. The University must make informed but rapid decisions in order to resolve this debate. The Commission therefore recommends:

5. That the President appoint a task force, including outside consultants, to evaluate the academic benefits of Graduate Hospital to the University, its probable future costs, and in light of these, its relationship to HUP. The task force should report by February 15, 1973.

Fiscal Options and Opportunities

Tuition, Admission, and Financial aid. The major thrust of our recommendations so far places responsibility for fiscal control on schools. Responsibility without authority is peonage. Schools therefore must have effective input on such questions as tuition levels, admissions, and financial aid. Schools should not exclusively control these matters. Exclusive control would endanger common standards of excellence throughout the University. The Commission therefore makes the following recommendations:

6. That schools be allowed to charge their own tuition rates subject to approval by the Provost, the President, and Trustees, with the advice of the Budget Committee. The Wharton School M.B.A. program already charges more tuition than other parts of the University.

7. That the Provost, the Council of Undergraduate Deans, the Dean of Admissions, and the Director of Financial Aid cooperatively set admissions targets and financial aid levels for each coming academic year well in advance of selection of new students. The Provost, Dean of Admissions, and Director of Financial Aid should regularly and frequently report back to the Undergraduate Deans on progress in meeting targets and on modifications which seem necessary.

Certain undergraduate admissions policies covering students from the Commonwealth of Pennsylvania, Benjamin Franklin Scholars, athletes, and members of special socioeconomic groups are mandated by the University. Undergraduate schools have a responsibility to meet these mandates but the University has a responsibility to help. Financial aid for these groups is on the average more expensive than financial aid for all other students. This imposes an extra fiscal burden on undergraduate schools. The Commission therefore recommends:

8. That the University provide direct subvention to each school for the difference between the average level of scholarship aid given to undergraduate students who are not in mandated categories and the financial aid required by students admitted as Commonwealth applicants, Benjamin Franklin Scholars, athletes, or members of special socioeconomic groups. To take a hypothetical case, suppose that average aid includes \$1,000 in scholarship funds and that a student admitted in a mandated category gets \$1,500 on the average in

TABLE 5 Income Control

	1970-71	1971-72
Annenberg School	157	138
Annenberg Center	123	128
Graduate Arts & Sciences	401	43
College & CW	513	1107
Law		
Graduate Education	416	317
Social Work	99	95
Fine Arts	365	128
Wharton		
Engineering, less Moore School	187	
Moore		400
Medical		
Dental & COHR	96	333
Veterinary & Monell		
Nursing	75	69
Allied Medical Professions	11	
College of General Studies		
Evening School		
Summer School		
Total	2443	2758

scholarship aid. The school which admits the student should receive \$500 in subvention from undistributed University income, before that income goes to any other purpose.

In development of future fiscal policies, it may be wise to shift a significant fraction of financial responsibility for undergraduate student aid away from individual schools and onto University subvention. A similar shift should also be considered for fellowships for graduate students in the arts and sciences.

Indirect Costs and Overhead. We have so far discussed control of direct costs. Control of indirect allocatable costs and of general overhead is equally pressing. The total of these two items (excluding net costs of auxiliary enterprises) should reflect the level of activity of the rest of the University. Cuts have already been made in some of these areas. We should continue to scrutinize all administrative costs. Although comparable data are difficult to obtain, the University of Pennsylvania probably uses a smaller fraction of its budget for indirect allocatable costs and general overhead than do similar institutions. The Commission therefore recommends:

9. That the total of indirect allocatable costs and general overhead, eliminating costs of auxiliary enterprises, be held at a constant percentage of total direct costs for academic and related programs. The Vice President for Management should immediately conduct studies to recommend the lowest appropriate figure. No reductions should be made in funds allocated to the libraries. No reductions should occur in the quality of operations and maintenance, although the central administration should try to provide more efficient services in this area, perhaps through external contract.

Besides the problem of dollars spent on indirect allocatable costs and on general overhead, there is the question of whether expenditures produce maximum benefits. A continuing mechanism for investigating this question by the Vice President for Management is needed. There should be review of controllership, treasury, purchasing, dining services, operations and maintenance, security, research contract administration, personnel administration and labor relations, computer information services, general expenses, development

and fund raising, and public relations. The Commission recommends:

10. *That the Vice President for Management establish reviewing panels of qualified experts from within and without the University to review each principal administrative function as described above. Formal review for each function should occur at least once every three years.*

11. *That a regular subcommittee of the Budget Committee, with the help of outside consultants when needed, continually monitor and advise on general administration and general expense.*

Funds for the regular reviews proposed in the last two recommendations must be made parts of the budgets of the Vice President for Management and of the Budget Committee. Hopefully, these reviews also will accelerate introduction of modern methods of systems analysis and management into the University as a whole. Universities generally are not famous for utilizing modern management tools. Our particular institution with its excellent business school and a new office of Vice President for Management is in an ideal position to provide national leadership in this regard.

Academic Development Fund. Table 6 shows results which would have occurred in fiscal 1971 and 1972, if the policies recommended here had been in effect during those years. The table shows the University deficit for each year, net auxiliary enterprise costs, deficits in direct costs of schools, and the Graduate Hospital deficit in direct costs. The table then totals the last three deficits, which by our policies should vanish. The final line subtracts the actual University deficit for each year from the funds which would have been saved. The result is the amount of money which would have been available to the University for other uses. In both years, this amount is fairly sizable. If the policies recommended above succeed and if expenses grow no more rapidly than income, the University should begin to realize real savings which will provide a base for further University development. Table 6 suggests that these funds will amount to something like \$2,500,000 per year by 1976. This is probably optimistic. The figures in Tables 3 and 4, especially for the College, would change if recommendation 8 is followed. Furthermore, income and costs may be computed in the future in different ways than now. Changes in accountancy will change the results required of schools by our policies. In any case, the Commission recommends:

12. *That real savings to the University after payment of all expenses be placed in an Academic Development Fund the policy group for which would be an Academic Development Board appointed by the President with the advice of the Senate and the University Council. The Chairman of the Academic Planning Committee or his representative should be an ex officio member of the Board. The Board would recommend to the President and the Provost the distribution of the Academic Development Fund. Approximately one-third of the Fund generated annually should be returned as income to individual schools for discretionary planning*

budgets and venture capital. Each school should receive a minimum of \$10,000. Amounts above this should be in proportion to income of each school above \$1,000,000. A school should receive no more than \$100,000. Each Dean would report annually to the Board on the use of these funds. The Board could recommend against further discretionary funds for a particular school which had not used the funds wisely. The other two-thirds of the Fund would be distributed to schools, centers, programs, offices, or groups of students and faculty which apply for money to plan, initiate, support, or test programs. Proposals to the Board would concentrate on but not be limited to teaching programs. Under no circumstances should the Academic Development Fund underwrite any commitment which would last beyond five years. Applications would be accepted for commitments ranging up to five years. Thus, the Academic Development Fund could not pay for new permanent faculty. Those who would use the Academic Development Fund to initiate and test new programs would have to specify means of evaluating the programs as part of their original application. Recipients of grants from the Academic Development Fund would have to report yearly on their activities. In keeping with the main thrust of our report, we particularly emphasize that projects which promote *One University* and which strengthen liberal arts and sciences deserve special priority from the Academic Development Fund.

The policies which we have recommended may not succeed in generating at least \$1.5 million per year which we feel is a necessary minimum for the Academic Development Fund. The future growth and planning of the University are so critical that the Commission recommends:

13. *That if the goal of at least \$1.5 million per year for the Academic Development Fund is not reached within three years, schools be required to meet more than 100% of their direct costs in order to make up the difference.*

One of our pressing needs is an increase in the amount of student aid. There is no specific provision for this up to now. The Commission therefore recommends:

14. *That perhaps 10% of the Academic Development Fund be permitted to be allocated for student aid. Schools should be encouraged to use such funds to obtain matching amounts from alumni. Allocations to individual schools from the Fund for student aid would constitute income for each school. The 10% figure is a suggestion rather than a specific target.*

Intercollegiate athletics. Table 1 shows that the Department of Intercollegiate Athletics received a subvention of approximately \$1,300,000. Controversy rages over whether this is justified. Many claim that athletics are important to alumni support of the University; others are skeptical. With the development of a large undergraduate student population in residence, athletic events are increasingly popular and attractive; they encourage intramural athletics; and they are valuable to the athletes. On the other hand, some faculty and some students feel that the present program is too costly when academic activities face financial cuts. Over the past few years, eight freshman and five junior varsity sports have been dropped and the Budget Committee has continually scrutinized the Department. Furthermore, since Pennsylvania belongs to the Ivy Group and plays in athletic events as part of its membership, it is aware of the variety of considerations which motivate its sister schools in athletics.

Under these circumstances, the Commission wishes to make four recommendations;

15. *That the President and Provost appoint a University-wide task force on intercollegiate athletics to recommend to them by September 30, 1973, the optimum size and cost of this program. They should provide the task force with all past reports on this subject and should offer necessary staff assistance.*

TABLE 6
Policy Effects

	1970-71	1971-72
1. University Deficit	1254	1926
Net Auxiliary Enterprises Cost	371	1433
Academic Programs Direct Cost Deficit	2443	2758
DIA Transfer	15	15
Graduate Hospital Direct Cost Deficit	312	250
2. Funds Presumably Saved	3141	4456
3. Net Funds Available (2-1)	1887	2530

16. *That until the task force reports, the programs of the Department of Intercollegiate Athletics be kept at their current levels of activity with whatever further reductions in costs seem feasible; the Budget Committee should advise on these reductions.*

17. *That the Department try to increase its income from gifts and gate receipts. Careful monitoring of increased gifts will be necessary on the part of the Development Office to insure the stability of general giving to the University.*

18. *That two-and-one-half per cent of the salary budget of the Department be transferred to the Academic Development Fund. This percentage is in keeping with funds generated by academic programs.*

Special Problems

Black Presence. In a later section we report in detail on what the university must do to make a black presence an effective reality at Pennsylvania. Financial support for this effort must come from an across-the-board reduction of the budgets of all responsibility centers except the Hospitals and Museum. Proportionate parts of the reduction must be spread back to administrative units responsible for indirect costs. The Commission recommends:

19. *That the Budget Committee present the President with a plan by March 15, 1973, for an across-the-board cut in all university budgets to generate funds in fiscal 1974 needed for implementing recommendations for the Black presence. The Budget Committee should plan for this obligation in future years. All parts of the University except those just noted must contribute.*

Transfer Students. Proposals have been made that the University recruit undergraduate transfer students to the exclusion of freshmen. From the standpoint of the University finances, this would be unwise. No evidence suggests that a sufficiently large pool of potential transfer applicants exists to fill our undergraduate schools. The most likely outcome of such a policy would be decreased income from undergraduate tuition. At the same time, we encourage the trend towards taking more transfer students and fewer freshmen. Specifically, the Commission recommends:

20. *That Financial aid be made available to transfer students on as rapidly increasing a basis as possible, to reach levels now available to other students.*

Growth and Age of Faculty. Between 1950 and 1970, the University added a large number of relatively young people to its tenured faculty. This was an acceptable policy when enrollments were expanding. We are entering a phase in history where enrollments will be constant or perhaps even decline. We must consider the effects of our past policies on our future position. At present about 65% of our faculty have tenure and a large proportion of the tenured faculty is less than 50 years of age. If current retirement policies were to continue, we would rapidly find that hiring a new assistant professor was a rare event. The sheer cost of keeping a large tenured faculty will continue to grow. As enrollment stabilizes, the need for added faculty members will vanish; each new appointment or promotion to tenure will fill one of a declining number of available positions. Pennsylvania is not unique in having this problem. It will affect every institution of education. Solutions to these problems require increased rate of retirement of tenured faculty. In order to achieve an optimal age distribution in the faculty, the Commission recommends:

21. *That immediate steps be taken to render voluntary early retirement an acceptable financial possibility. The President should ask an appropriate Senate committee to report on this matter within three months. We have been unable to investigate alternative means for encouraging early retirement and we make no specific recommendations. Any plan adopted, of course, must be one that does not impose an involuntary economic disadvantage on the faculty.*

Retirement Age. The general trend in our society is toward retirement at increasingly early age. This trend could benefit the University by alleviating pressures toward a relatively unchanging faculty. The Commission therefore recommends:

22. *That the Board of Trustees immediately lower the normal retirement age to 65 for all faculty members who achieve tenure after June 30, 1974. The Board should investigate a further lowering of the mandatory retirement below 65.*

The Commission also recommends:

23. *That whenever possible, a tenured position vacated by resignation or retirement be turned into a position for hiring a non-tenured faculty member. This procedure should be avoided, however, when it poses a serious threat to academic quality and reputation, especially in smaller departments.*

Achievement of Tenure. Since appointment or promotion to tenure will become an increasingly crucial step, we must make certain that high standards are maintained. The Commission wishes to recommend an additional mechanism to provide such insurance:

24. *That within three days after receiving a departmental recommendation for appointment to or promotion to tenure, the Dean of the school concerned notify the Provost of this fact. The Provost may then wish to appoint an ad hoc consultant on the recommendation. The consultant would come from a department other than the one forwarding the recommendation and preferably from a different school. The consultant would interview members of the department originating the recommendation and will also interview personally or by telephone scholars outside the University who know the candidate's qualifications. The consultant should report to the Dean and then to the Provost within three weeks after accepting the assignment. The Provost should then reach a prompt decision on granting or denying the requested promotion or appointment, if the Dean chooses to forward it to him after receiving the consultant's report.*

The University also should have greater flexibility than statutes now permit regarding the number of years of service in nontenured positions before a decision about tenure must be made. The Commission therefore recommends:

25. *That an appropriate Senate committee be asked to consider whether fully-affiliated faculty members should be permitted to serve without tenure for a total of nine years. The first six years would consist of the current pair of three-year appointments as Assistant Professor. By the end of the fifth year of service, the University would be required to decide whether to promote the faculty member to tenure, whether to notify him of termination of appointment effective at the end of the following academic year, or whether to appoint the faculty member to a three-year term as Associate Professor without tenure. If the last option were exercised, a decision about tenure would have to be made before the end of the second year of the three year term as Associate Professor. The Senate committee should report on this matter by September 15, 1973.*

General Conclusion

The University of Pennsylvania has grown in size, buildings, and quality during the last two decades. Liberal arts and sciences, among other areas, have visibly improved. Over the next two decades, Pennsylvania will not grow in size or buildings. It general fiscal position, however, makes us optimistic about achieving further increases in quality. Responsible and prudent control will be necessary, but the economic situation of the University holds the promise of future advances. We may not retain all programs which we now have, but we should achieve greater quality. We should anticipate success in meeting the challenge of creating *One University*.

2. UNDERGRADUATE EDUCATION

I. PRESENT STATUS. In its studies and deliberations, the Commission faced a number of important questions. How do we provide students with a quality educational experience, and at the same time allow them individuality, independence, and responsibility? Particularly, how do we do this for freshmen and sophomores who are so often in large, impersonal classes taught by graduate students when they need closer contact with the faculty? How can we constructively use our strong professional schools and our strong graduate groups to enrich undergraduate education? How can we assure that we will be able to attract high quality undergraduates of diverse background and goals in the future?

In a word, what can the University of Pennsylvania, as a private institution, offer the undergraduate in return for a premium tuition?

These questions are complicated by the nature of the University which has undergraduate programs not only in the College and the College for Women, but also in many of its professional schools, some of which offer a mixture of liberal arts and professional education. To complicate matters further, most of these schools offer programs in graduate education as well. Furthermore, the schools differ in size both in student body and in faculty as the sample data in Table 7 indicate.

In recent years, the University has made clear its determination to strengthen the liberal arts and sciences and to initiate reforms in undergraduate education which would answer some of its problems. One of the most pressing of these, which affects our efforts in all other areas, has been the University's experience in the recruitment of new students. Neither the environment of living at the University nor the quality of its programs have been sufficient to attract quality students from the independent schools in the same numbers as our competitors. Rather, we have competed for students from the public schools in our efforts to create a greatly improved and heterogeneous student body. Although such an effort requires a first-class scholarship program, we have not during the past decade made any major effort to build up our endowment for this purpose. Instead, we have relied on available unrestricted income. As the pressures on this income have increased, sentiment has grown to reduce the amount available for the recruitment of new students and for scholarship aid. The result has been a slow competitive "slippage" relative to other quality schools. Without a sound student body of promising young men and women the renovation of undergraduate education is a hollow exercise. Yet without an attractive environment for living, and a challenging environment for learning, we cannot attract those very students whom we need. Action is required on all aspects of the problem at the same time.

II. PROPOSED PROGRAMS. The logic of admissions policy (which depends upon the availability of scholarship funds to a great extent) dictates that admissions policy and financial aid policy cannot be formulated in isolation from one another.

The logic of innovation in undergraduate education also dictates that new programs and new funding arrangements within those programs be utilized in recruitment efforts and that admissions criteria be coordinated accordingly. In order to achieve these goals the Commission has recommended a mechanism which places this responsibility in the hands of the Provost, the Council of Undergraduate Deans, the Dean of Admissions, and the Director of Financial Aid (see recommendation 7 under *Reallocation*).

In making its recommendation the Commission has tried to take into consideration the widened spectrum of backgrounds represented by the Student body and faculty as a result of the changes of the past twenty years, the increased desire on the part of young people for independence and responsibility, and the unique growth of research capabilities at the University in the years since the Second World War. While the Commission subscribes to change through incrementals steps in practical matters it recommends a major philosophical change in the University's orientation to undergraduate education. This change involves the idea of pushing the student into the system at the beginning with imagination and energy rather than pulling him out of it at the end. To do this it is necessary to build motivation for learning at the start by appropriate recruitment criteria (including experience and a widened age range as factors) to ensure a student body which begins by viewing education at the University as an opportunity and which is then introduced to the University by our best faculty in their first years with progressive freedom thereafter. The University must expect *all faculty occasionally to teach at this level* thereby providing a wide perspective of the subject and a role model for academic life. Without these the entering student often fails to find a new orientation to learning and sees college only as the prolongation of high school experience. The creation of increased flexibility and independence for the student in later years must not be accompanied by any faculty abdication of responsibility for maintaining academic standards. Rather, student and faculty must work together in this process in order to achieve that elusive and most important element of a quality education: adaptability of a high quality program to the needs and capacities of both student and professor. Wherever the cost is insignificant we must strive immediately for such adaptability; where there is additional cost we must make clear to the University the relative advantages of the investment over other proposed uses for the same funds.

The great strength of Pennsylvania lies in the close juxtaposition of its professional schools and its programs in the liberal arts and sciences. A variety of undergraduate programs exist scattered through these somewhat separate units of the campus. It is the Commission's feeling that the potential of this existing system should be developed for the benefit of undergraduate education as well as for the University as a whole. We have approached this question from the concept of *One University*: the integration of our historical strengths in the professional schools with strengthened arts and sciences. The integration envisioned has two dimensions: a lateral dimension concerning the movement among units of the University of individual students seeking opportunities for special course work, and a vertical dimension involving the gradual removal of the barriers between undergraduate and graduate and professional programs.

On the level of integration between schools and the colleges some progress has been made. Courses have been and are being opened up at the undergraduate level; joint programming between related departments in different parts of the University exists in some areas and is under discussion in others. This movement must be furthered as in many subject areas our students are not yet fully competitive for entry into the best schools. The problem is complex but the opportunity for developing new programmatic horizons is challenging.

TABLE 7
Undergraduate Enrollment and Faculty by School

	Students	Full-time Faculty	Part-time Faculty
College and CW	4800(?)	367	369
Wharton	1400	260	124
Engineering	490	96	(?)
Nursing Bacc.	152	51	(?)
BSN	200		
BSN/pt	150		
SAMP	300	18	22
TOTAL	7342	792	522 +

Perhaps the most obvious area illustrating this opportunity is that of the interface between the Medical School and the arts and sciences. The field of medicine is undergoing radical change in which traditional training in the basic medical sciences is no longer in itself sufficient. Social, ecological and societal aspects of disease on the one hand, and the problems of the distribution of health care on the other, confront academic medicine with an unprecedented challenge. At the same time nearly a third of our undergraduates have indicated their interest in pursuing careers in the health sciences. How are we to give the best possible education program to these students? How do we optimize their possibilities for successful admission to professional schools? What alternative programs can we develop for those who are unsuccessful applicants to such schools? How can the University avoid the situation in which it now stands with a maldistribution of faculty to cope with this distribution of career plans in its undergraduate student body? And how can that important contribution of liberal arts and sciences to undergraduate education be strengthened while dealing with these other questions? Concern on the campus with these questions is widespread and local school committees have been considering them. But the problems are not local. They are inherent in the challenge of being *One University* and must be dealt with on a University level. As a basic further step in meeting this challenge the Commission recommends:

26. *That the President appoint a task force including representatives of the College and the School of Medicine to investigate the programs in premedical and medical education, and in the biological and behavioral sciences, in order to determine the quality of our present programs and the nature of their present interactions; to determine how their quality can be improved and their interaction optimized; and finally to determine whether new inter-school programs are necessary to meet present and future challenges.*

Turning to the aspect of vertical integration in *One University* the Commission endorses a general program of enrichment of the undergraduate curriculum through the introduction of optional modes of study, and an experimental program on a limited scale aimed at blurring the boundary between undergraduate and graduate education (the University Scholars Program).

A. Optional Study Mode Program. Most students are not prepared to commit themselves to a specific professional career at an early stage of their undergraduate studies. For this majority of students our problem is to help them find intellectual directions of development which are compatible with their incipient interests and to encourage their personal motivation to learn through a variety of options of modes of study. We should lead them to select a style of study which is academically rigorous yet adaptive to their best inclinations as to work habits. We all know that faculty members sometimes work best in the morning or in the late evening, or in the library or in the field. Similar latitude should be available for students if they are to get the best out of themselves.

Optional Modes for the Freshman and Sophomore Years. The creation of optional study modes can only be appropriate to a student body which is prepared to make effective use of them. To this end the kind of introduction to the University we give freshmen and sophomores is crucial. An impersonal atmosphere with large classes—and especially the absence of effective direct contact with the faculty—offers no incentive for new students to develop what interests they may already have, nor does it encourage them to develop any which may lie dormant. The first step then, must be to introduce the student to a new environment in a way which shows it as full of potential and different from the educational routine already experienced for many earlier years. To this end, direct contact with regular faculty members in the con-

text of small groups is essential. Such groups can form part of a number of different kinds of programs. Three already exist as models: *Freshman Seminars*, the *General Honors Program*, and the *College of Thematic Studies*. In addition, in recent years there have been proposed a *Tutorial College*, a *Freshman Humanities Year*, and a *Great Books Program*. These three programs would require major funding if implemented. All of them would require careful evaluation as to relative merit by the College and College for Women. Other proposals may well emerge from discussion. The Commission, therefore, simply proposes the adoption of a major policy by the University aimed at the establishment of the structural mechanism for the implementation of such programs in the future. To this end, the Commission recommends:

27. *That every freshman and sophomore not enrolled in an undergraduate professional program be enabled to take at least one course per term with fewer than 20 students in it.* Some additional funding would be necessary to assist in such a readjustment and could probably be managed from reallocation sources. Reduction of class size beyond this level would involve a considerable increase in expense. Such courses could be part of the regular departmental offerings, could represent interdisciplinary offerings, could be the present Freshman Seminars, could be part of the College of Thematic Study, or could be some other experimental program yet to be designed.

The teaching force for this program would come primarily from the faculty of arts and sciences who would be asked to teach one such course every two or three terms. In addition, faculty from the professional schools should contribute as part of the obligation of these schools to devote some fraction of their teaching time to the University as a whole. Equally important would be the contribution that could be made by qualified postdoctoral fellows and selected advanced graduate students. The students would be nominated by each graduate group to the Dean and if appointed would be awarded a special title such as Benjamin Franklin Instructor and a stipend of \$1,000 over and above any tuition and fellowship aid already awarded. To ensure quality and provide help, these instructors might participate in a special seminar on teaching techniques. Graduate student teaching fellows in general might assume some of the burden of teaching specialized courses in the junior and senior year (since they are working intensively on special topics for dissertations) thereby releasing mature faculty for participation in freshman and sophomore training where broad perspectives are needed. The details of such an instructorship program would have to be further worked out and would require a major source of new funding for its success.

Only further study and experience will tell just how many students might be involved in these courses, and therefore, how many faculty and instructors would be needed. Much would depend on the degree to which undergraduates in professional schools also wanted to participate in courses of this sort. The important point is that the policy decision would create a vehicle for regularizing and guaranteeing small courses for freshmen and sophomores who desire them.

While the emphasis made here is on ensuring the availability of small classes in the early years, it is important to keep in mind the need for balance between small and large courses in each year of the undergraduate program. In each year there are legitimate needs for large classes, and in some areas such as biology, organic chemistry and mathematics, for example, there are great pressures on the departments. Such large lecture courses might be strengthened through the establishment of a limited number of endowed professorships primarily associated with teaching skills to attract and reward lecturers with the special talents required for effectiveness before such large audiences. Heavy pressures on specific

departments might be alleviated by devoting some resources to the search for ways in which audio-visual equipment might be used to increase the effectiveness of teaching.

Optional Study Modes for Advanced Undergraduate Years. With the proper introduction to academic life during the first two years, additional modes of study stressing individual initiative should become available in the last two years. Such optional study modes should provide an adaptive mechanism for the learning styles of students and the teaching styles of professors while protecting academic standards. A number of proposals have been reviewed which offer juniors and seniors advanced study opportunities beyond those presently available to them. These options include: a) *interdisciplinary study* through the College of Thematic Studies, b) *a research option* through a research term, tutorial term, and thesis term, c) *an apprenticeship option* (work-study assignment as a research assistant to faculty member in the same field as part of the self-help component of financial aid, combined with examinations), d) *self-education through credit for analyses of practical experience* in social or medical service or other field work relating to an academic program, or for analyses of participation in research projects and workshops, either while the student is in residence or away from the University, e) *course credit by examination* (which could be initiated by a simple rule to the effect that any student may petition a department for an examination in lieu of any course currently offered with payment of a special tuition rate as a possible inducement). All of these options could be offered with little expense which could be met by reallocation funds.

In addition a *Collegiate Residential* option has been proposed over the span of four years. Residential Colleges have been recommended (see *Educational Living*), some with specific educational themes (e.g. foreign language and culture house or pre-health professions house) but with a mixed student body drawn from related fields. Professor Rieff earlier proposed a *Masters College* (see Honors College, *Interim Report*, May 1972) consisting of a mix of undergraduate scholars and graduate fellows in an educational program under the close guidance of dedicated Masters in residence.

Programs such as these require thoughtful study and assessment before they can fruitfully be put into effect and they will of course require major funding if adopted. The Educational Policy Committee of the College chaired by Professor Thomas H. Wood has been working intensively all year on some of these and related educational questions and will make a significant contribution to undergraduate education in its final report. The Commission fully supports this effort. In addition, the Commission recommends:

28. *That released time be allowed one or more faculty members for the purpose of developing detailed proposals, particularly directed to the Vice Provost for Undergraduate Studies: a) the Masters College and Residential Colleges with specified educational themes, b) the research option and c) the option for experience in field work, service and research.* The minor cost of this planning effort should be borne by reallocation funds.

B. A University Scholars Program. This program is proposed as an experiment of limited size which should it prove successful would be modified by experience, broadened, and advanced as a model for future educational patterns at private universities. It has the potential advantages of allowing a synthesis of undergraduate and graduate programs while giving a high quality education in a shorter time with less cost to the student.

The program is the "continental option", providing early admission of our undergraduates with clear career goals to graduate and professional programs at Pennsylvania. It plays on the theme of *One University* and is intended, in appropriate cases, to eliminate the distinction between undergraduate and graduate student or between undergraduate and pro-

fessional student. Its main feature is that it allows the student to progress at his/her own pace through college and advanced education (either faster or slower by virtue of a year away, for example) without anxiety over where that education will take place. Its main strength is that it pulls the college and the graduate and professional schools together at Pennsylvania with mutual benefits and could attract to our own graduate programs many of our better baccalaureate alumni who now go elsewhere for higher degrees.

The University Scholars Program would be open to undergraduates of proven motivation and ability through nomination by any faculty member to a *Council of Senior Scholars* representing the various schools and charged with making the final selection. Students would not apply directly to the Program, but would have to work closely enough with a faculty member to convince him/her of serious intent and ability so that the nominating faculty member could support other credentials with a personal appraisal of the candidate's prospects for success.

For the student who qualifies, there are a number of advantages: a) *A commitment for admission* by a school or graduate group which allows long term planning, could be made sometimes as early as the end of the Freshman or sophomore year, but more often probably during the junior year on the assumption that standards will continue to be met. b) *University fellowship* and other financial aid would be guaranteed through both degree programs where needed. c) *The bachelor's degree* could be obtained in three to five years depending on whether time is taken off for non-University experience. d) *Graduate and professional courses* would be available during the undergraduate years. This could be done through admission to present advanced courses and seminars. Or special undergraduate courses or seminars could be offered, possibly by holders of endowed professorships set up explicitly for this purpose. e) *The master's degree* could be given for advanced work done as an undergraduate, either at the time of the bachelor's degree or one year later. f) *Advanced degrees* could, in some cases, be completed in two years after bachelor's-master's degree or three years after bachelor's degree; in other cases, it could take five years (M.D./Ph.D. program). g) *Liberal arts and sciences courses* could be made available during professional and other advanced training, whether it be a technically valuable mathematics course or a music or literature course for personal edification. h) *A flexible schedule* would be provided in this program. The mature and well-organized student could proceed through advanced training in 3+3 rather than 4+4 years. Another kind of student could take eight or nine years for both degrees, possibly taking a year or two off between undergraduate and advanced programs. In such a case, the student would have two years to pick up his/her acceptance, as long as this was done by January of the calendar year of academic reentry.

For the school or graduate group participating (and not all may want to at the outset), there would be a number of obligations and advantages. a) They would have to *commit places to Pennsylvania undergraduates* in greater numbers than before (some in the University Scholars Program, others upon graduation), from as few as one or two for a graduate group to as many as 50 for a school. b) *The standard of admission* should be at the highest level, but hopefully based less on grades and aptitude scores than on creativity, workmanship, and motivation, demonstrated to our own faculty during the undergraduate years. Thus the program should yield superior students already on fellowships. c) As soon as a commitment is made, a *faculty advisor* should be provided by the graduate group or school. d) There could be a *capitation advantage* for certain schools if the undergraduate could be counted as "admitted".

For the University, this program would offer a unification

of purpose and a better interaction between undergraduate education and graduate and professional education. a) It would oblige us to construct a *single University calendar* for the scheduling of courses during the regular school year to which all schools would conform. c) It would make an *attractive package for fellowship fund-raising*. d) It would make an *attractive package for endowed professorships* for those who bridge the gap between undergraduate and professional experiences (e.g. the physician or the lawyer who teaches undergraduates). c) It would *improve our ability to attract students*. The program would use the strengths of our professional schools to attract outstanding undergraduates. Equally important would be the use of the strengths of our liberal arts and sciences College to help broaden educational experience in our professional schools.

The Commission recommends, therefore:

29. *That a University Scholars Program be set up that could be attractive initially to as many as 10% of the undergraduate body.* The program would have to be acceptable to at least a few professional schools and graduate groups in order to get started as spaces would have to be set aside for this purpose. Thus, the cooperation of Deans and chairmen would have to be sought and the program worked out in greater detail by the Council of Senior Scholars (see p. 11) appointed by the Council of Academic Deans to administer the program. Hopefully the program could be started immediately in a modest way with funds generated through reallocation so that a few fellowships could be provided to show how it could work. Major funding for a greater number of fellows would have to follow. When the program reached the full 10% of the undergraduate body there should be a full review of its potential impact on graduate and professional education if expanded.

C. *Incentives for Teaching.* Successful undergraduate programs require excellence in teaching, and we believe this can be encouraged without detracting from research and individual scholarship, by an appropriate system of innovations and rewards. The Provost and the Council of Academic Deans should seriously consider the following: a) a fund for *distinguished outside lecturers*; b) *commissioning lectures* within our own faculty; c) reduction in teaching load for *time to plan new courses*; d) development of criteria to make consideration of *excellence in teaching* more significant in promotion decisions; e) *commitment to the University by all schools and departments of a small percentage of total teaching time* (this would be a responsibility of the school or department as a whole, to be exercised only when needed in University programs such as the Freshman Seminars and College of Thematic Studies); f) better calculation of *teaching loads* to include time spent working in student residences, supervision of undergraduate research and independent study, and advising in addition to formal classroom teaching, direction of dissertations, graduate research and the like; g) *evaluation of teaching* to provide a means of feedback to the teacher. In the hope that the mechanisms may be achieved through which to initiate many of the proposals which have been referred for further study, the Commission recommends:

30. *That there be administrative implementation of these ideas, particularly review of present methods of calculating teaching loads and instituting as soon as possible the idea of School or Department commitment of some teaching time to the University as a whole; and*

31. *That specific plans and proposals be made for developing some of the proposed endowed chairs (perhaps 15) in different styles for the purpose of creating new teaching capabilities where they are needed most.* This latter recommendation will require a major funding effort.

D. *Other Recommendations.* The efforts of the work team yielded a number of other recommendations which deserve further study by the Vice Provost for Undergraduate Studies,

the Undergraduate Deans and the Faculty, if this has not already begun. Many of these suggestions are already being reviewed by the Educational Policy Committee of the College. As a general rule it is the Commission's feeling that these ideas should be developed progressively so that (1) an excessive proportion of resources relative to general University needs is not committed to experimental programs at any one time, and that (2) each experimental program is established on a limited basis for a specific trial period at the end of which it should be carefully evaluated and either accepted on a permanent basis (with modifications if necessary) or eliminated. The principal suggestions can be listed briefly here. a) *Qualification by examination and a substantial thesis project* in lieu of meeting course requirements for a major or for graduation should be explored. b) *Courses of varying length and intensity* (other than term length) could be advantageous. c) *Student-taught courses and learning cells* could work if some form of training and evaluation could be designed as part of the process. d) *Credits in varying number* might be given for a substantial paper reporting a project or analyzing an experience related to an area of study, or by examination alone. e) *Additional kinds of majors* of various sorts should be considered. f) *Distributional requirements* might be met by courses designed to give more the "mode of thinking" in a discipline than its substance. g) *Advising* could be improved by using seminars, the residences, student advisors, and better course descriptions. h) An "*honors, pass, fail*" system should be studied, including the use of written evaluations. i) *Expanded access to college* should be considered, especially through early admission of qualified high school students, delayed matriculation, leaves of absence, increased places for transfer students, and easier transfer into and out of the University. j) *Development of curriculum in the creative arts* could be done in a number of ways: artists or writers in residence, a creative arts college house, a consortium with other creative arts institutes in the area. Only the last of these various suggestions would involve substantial sums of new money.

E. *Financial Aid.* The very important issue of financial aid is discussed under *Reallocation*. Quite clearly, the University needs to be able to offer more financial aid and the best way to obtain it is through endowed scholarships and fellowships such as those proposed here and in the reports on *Graduate Education*, and *Endowed Scholarships and Fellowships*. Endowed professorships could be assigned to a number of programs described here, particularly in Residential Education (5) and Masters College (5), the University Scholars Program (10), a Creative Arts Program (5) and Program for Excellence in Teaching (15).

III. *ANTICIPATED COSTS.* At full endowment (\$750,000), the 40 endowed professorships listed above could cost as high as \$30,000,000. In the University Scholars Program, fellowships could easily be \$1,000,000 (\$20,000,000 in endowments). The operating cost of the Benjamin Franklin Instructors for freshmen and sophomores could be \$150,000 if 150 of them were needed (\$3,000,000 endowments). This is not to mention Residential Education which is discussed in the section on *Educational Living Patterns*.

IV. *OTHER CONSIDERATIONS.* Further planning is needed for programs recommended here, but it is obvious that there is considerable premium in getting some of them underway right away, hopefully with funds generated through reallocation. The Vice Provost for Undergraduate Studies and the Undergraduate Deans and their Faculties have the major responsibility for planning and evaluation, but funds should be made available for released faculty time to make thoughtful study of educational proposals with the help of students; where needed, outside expert consultants should be used.

Academic evaluation is absolutely critical to all programs proposed in this report. At the outset, one can obtain *accept-*

ance measures in terms of "use" of program offerings or enrollments, expressions of student satisfaction and dissatisfaction, and expression of faculty opinion as to the educational value of programs in which they have participated. In addition, there should be built into each new educational program provision for evaluation by whatever standards of *academic performance* are available: examinations, academic honors, or other academic achievements.

3. GRADUATE EDUCATION

I. PRESENT STATUS. The Graduate School of Arts and Sciences (GSAS) consists of 63 Ph.D.-granting graduate groups made up of 3,220 students and 951 faculty. Except for six departments (American Civilization, Classical Archaeology, Folklore and Folklife, History and Sociology of Science, Oriental Studies, and South Asia Regional Studies), all of these faculty are budgeted through the College, Wharton, Engineering, and the professional schools and thus have responsibilities outside GSAS. This circumstance leaves the Dean of GSAS in the anomalous position of having responsibility for the academic quality of graduate programs, but no budgetary control or real academic influence. Hopefully a new Faculty of Arts and Sciences and its Dean will solve this problem.

Perhaps the most pressing problem of GSAS, then, is the uneven quality of its Ph.D. programs. Some are excellent and rank in top positions nationally, others are undistinguished and even below acceptable standard of quality. Our academic development calls for the strengthening of graduate programs, but our resources and our energies do not permit across-the-board strengthening, nor is it wise to contemplate such an idea. Instead, the concept of *selective excellence* in graduate education has been put forward.

To accomplish selective excellence, it is necessary to *bring all programs up to a minimal standard of quality or plan to eliminate them*. In some cases, reducing the size of programs by cutting out their weakest parts would be advisable. In other cases, adding to programs where strength is needed would be wisest. In addition, a decision has to be made as to what programs might be considered *core graduate programs* necessary for the very existence of a first-class graduate school. Are these the classical disciplines? Are they the disciplines on which other graduate and professional programs depend critically? Once such a list is drawn up, do we need to have all programs on the list or will having excellence in some reduce the need for others?

Quite clearly, we are in serious need of evaluations which will allow us to see our priorities clearly. The Academic Planning Committee has started this process and we will make recommendations that will move us further in this direction. Historically it has been easy to form new graduate groups at Pennsylvania, but there has been no mechanism for terminating those which have become weak or defunct. We have to find a way to make rational and constructive decisions about these matters very soon.

One additional problem is the declining financial support for graduate education. The number of fellowships controlled by the University has dropped from 564 in 1968-69 to 309 in 1972-73, and a further decrease of 108 is projected for 1975-76. This problem raises the question of the size of our various Ph.D. programs and also the question of new means of support for graduate students both from our own resources and by means of new outside funds for new programs in which graduate students would participate.

Despite the problems brought out here, graduate education at Pennsylvania has been quite successful. The concept of "graduate groups" has provided a fruitful flexibility and has promoted excellent grounds for interdisciplinary graduate training. Quite clearly, the graduate programs have had a positive educational impact on the undergraduate programs.

Thus we have a strong basis and a healthy atmosphere in which to build even stronger graduate programs.

II. PROPOSED PROGRAM. The name of the program is selective excellence. We must maintain basic strength in a wide range of graduate disciplines, but we can be excellent only in some—perhaps a dozen, perhaps somewhat more.

Both the Commission and the Academic Planning Committee have addressed themselves to the necessary question of priorities in graduate education. The Academic Planning Committee has collected data through questionnaires sent to Deans and department chairmen and is ready to evaluate the standing and productivity of programs.

Meanwhile, the Commission has set forth six criteria for the selective strengthening of graduate programs: a) potential for significant, creative work in the area; b) a present high level of excellence; c) strong interactions with existing strengths; d) long-run contribution to the solution of problems of society; e) uniqueness of our strength in the area; and f) availability of outstanding new faculty in the area. The Commission recommends:

32. *That the University Administration use the Academic Planning Committee's analysis and the above criteria to identify the core disciplines which should be strengthened to at least a minimum (high) standard, and*

33. *That the University Administration use the Academic Planning Committee's analysis and the above criteria to encourage a dozen or more disciplines to national preeminence.*

This last should be a step-by-step process as programs are able to demonstrate their strength and propose in some detail how they can build even greater excellence in the future.

To put evaluation of the sort proposed here on a continuing basis, the Commission proposes that a *Graduate School Review Committee* evaluate graduate programs every five to seven years.

Admissions. Although the graduate groups should continue to determine which candidates should be admitted each year, we must find ways to maintain the highest standards of quality. To this end, the Commission recommends:

34. *That in determining fellowships and other forms of financial aid in relation to the admission of graduate students, the University administration take into account the quality of the graduate program as well as that of the student.*

Fellowship and Financial Aid. The Commission estimates that an additional 300 scholarships and fellowships are urgently needed for graduate programs at an annual cost of \$1,800,000 (\$6,000 per student, approximately half for tuition and half for stipend). While low-interest loan programs could provide some of these funds, some of them should come from endowment sought for specific programs. Specific possibilities are the *University Scholars Program* (B.A.-Ph.D.), the *Benjamin Franklin Instructors Program* (for small freshman and sophomore courses), the extension of the *Pennsylvania Plan Fellowships* to the predoctoral levels, and a *Residential Counselors Program*. In addition, every effort should be made to use teaching assistantships and research assistantships to help attract and maintain the most qualified graduate students.

Postdoctoral fellows. Every effort should also be made to continue the support of postdoctoral fellows, for they can play vital roles in the education of graduate students and undergraduates and can be invaluable to the research efforts of the faculty. Moreover, they make an excellent pool for the recruitment of new faculty as the Pennsylvania Plan has demonstrated in our biomedical area. In this process, they are even more valuable than graduate students in carrying teaching responsibilities.

Faculty. More clearly than anywhere else in the University, success in graduate education depends on success in recruiting and retaining outstanding scholars. To this end the Commission recommends:

35. That 20 endowed professorships be sought for outstanding scholars, most suitable to lead in graduate education, particularly in those graduate programs selected for strongest development. These professors while emphasizing graduate studies would, like other members of the faculty, be expected to teach undergraduates.

Our strongest programs are the ones most likely to attract funds for endowed professorships, and these funds, in turn, would be yet another way of selectively supporting excellent programs. There is no reason why more than one chair could not be applied to a given program.

III. ANTICIPATED COSTS. The major costs projected here are in endowed fellowships and endowed professorships. If half of the needed 300 graduate fellowships were endowed ones, we would need an endowment of about \$15,000,000 to generate \$900,000 annually. For 20 professorships at \$750,000 endowment each, the total would be another \$15,000,000. Thus a total of \$30,000,000 is indicated for graduate programs.

IV. OTHER CONSIDERATIONS. It goes without saying that strong graduate programs contribute to strong undergraduate programs, not only because of the faculty the graduate programs attract but also because of the direct contributions of the graduate students themselves in teaching and in enriching independent study and research programs of undergraduates. In addition, through the proposed University Scholars Program, graduate and undergraduate education could be integrated into one continuous program. In many instances, graduate programs also enrich and enlarge professional school programs (e.g. M.D./Ph.D. and V.M.D./Ph.D. programs).

For selective excellence, evaluation of the quality of graduate programs is of paramount importance. The task is difficult, but it should be started as soon as the Academic Planning Committee's analysis is available, so that we know which are the core disciplines, and within a year, have a start on raising two or three departments to national preeminence. Then the evaluation should be done on a continuing basis as indicated above.

4. PROFESSIONAL SCHOOLS

I. PRESENT STATUS. There are twelve professional schools at the University and they vary in size of student body and faculty, types of programs and degrees offered, and academic quality. Table 8 derived from data from the Academic Planning Committee's questionnaire provides a rough idea of some of this variety.

The Commission had neither the time nor the resources to make exhaustive studies of each school. Therefore, it decided that it could do the best job by establishing criteria for the evaluation of professional schools within the context of the University as a whole. With these criteria in hand, it then briefly surveyed each school and developed recommendations for further study and evaluation. The recommendations appear below. No specific programs for development and fund-raising are proposed. We hold that specific proposals must come from the schools themselves, from task forces suggested below, or both. Our report recommends in its section on *Future Planning* a mechanism for dealing with forthcoming proposals and those which we have already received.

We explicitly recognize the need for academic planning and development in the section on *Reallocation*. We recommend there that the University distribute discretionary planning funds to each school. Furthermore, in setting financial targets for each school to keep direct costs within income, we place a premium on planning for the future. We emphasize that schools must solve their fiscal and academic problems by cutting back weak programs and developing their stronger ones. The same principle of "selective excellence" must apply here as in graduate education. Finally, professional schools should develop academic programs which not only serve pro-

fessional goals but also contribute to the more general academic goals of *One University*. In order to achieve these aims, we recommend:

36. That the Dean of each professional school appoint a planning and evaluation committee for his/her school. Where the Provost deems it appropriate at least one-third of the committee should be chosen from outside the school in consultation with the Associate Provost for Planning. Members of the committee should be relieved of some teaching. Discretionary planning funds given the school could help in this matter.

The Place of Professional Schools. The University of Pennsylvania is unusual among private institutions in its variety of professional schools. Only in recent decades have the liberal arts and sciences achieved comparable prominence at Pennsylvania. The future strength of the University depends partly on better articulation between the liberal disciplines and the professional schools. Our report on undergraduate education addresses this problem. Professional schools, however, deserve consideration in their own right. A first step is to examine what goals are appropriate for them in a university like ours.

An excellent professional school should do three things. It should train highly competent practitioners and prepare them for continuing self-education. It should train excellent teachers to pass on the discipline of the profession to others. Such teachers must be capable of highly competent practice. In achieving these first two goals, an excellent professional school should provide leadership in developing new curricula, new professional structures, and new systems for delivery of services. As its third goal, a professional school must engage in advancing the knowledge base on which the profession rests. In many cases, this knowledge base corresponds to disciplines in the arts and sciences and is advanced through scholarly research. In other cases, the knowledge base is multidisciplinary or is even reflected in innovative practices, delivery systems, training techniques, or in actual performance open to scrutiny by others such as works of art or architecture. Above all, an excellent professional school must undertake advancement of the knowledge base in order to bring

TABLE 8
Enrollment and Faculty in Professional Schools

School	Students		Faculty	
	Pre-Baccalaureate	Post-Baccalaureate	Full-time	Part-time
Annenberg School of Communications	45 *	140	12	5
College of Engineering and Applied Science	490	1000	90	15
Graduate School of Education	475 *	600	43	28
Graduate School of Fine Arts	—	463	31	39
Law School	—	657	30	11
School of Social Work	—	MSW 220 Post-MSW 55	32	10
Wharton School	1400	Prof. 1100 Ph.D. 750	260	124
School of Allied Health Professions	300	—	18	22
School of Dental Medicine	—	586	82	250
School of Medicine	—	649	620	1215
School of Nursing	Bacc. 152 BSN 200 BSN/pt 150	MSN 100 MSN 25	51	7
School of Veterinary Medicine	—	348	105	15

*Students not admitted but taking courses.

returns to the profession beyond the confines of this University and beyond the practitioners prepared here.

Professional schools at the University of Pennsylvania vary greatly in their contributions to their respective knowledge bases. Some are outstanding while others make little or no impact. Those which make little or no impact frequently are in fields which are not noted for quality of research. It is impolite for academicians to discuss this pecking order, but it exists whether we like it or not. We should face its implications rather than pretend that it does not exist.

Professional schools also tend to ossify. Professions may become guilds with tried and true ways of doing things. Change is harder to introduce as a professional school becomes isolated from other parts of a university. We hasten to add that scholars in the liberal arts and sciences also form guilds and can become inflexible also. These guilds, however, form in departments rather than in whole schools.

In brief, Pennsylvania with its many professional schools has its share of two problems. The first is the uneven quality of the scholarly work which prevails among different schools. The other problem is the tendency of professional schools towards rigidity. The solution to the problem of quality of scholarly research can lie in either of two directions. We must consider both in the case of a school whose quality of scholarship is low. The first is to show that the quality of scholarly research is capable of dramatic improvement by hiring available new faculty, especially those who would interact with other schools. If costs are feasible, such improvement should be produced by hiring the faculty. Alternatively, one can conclude that faculty are not available or that costs are prohibitive or even that the field does not permit significant current improvement in the quality of scholarly research. One then can decide for these and other reasons to phase out the school. Drifting because no decision is made is not acceptable. A school whose scholarly reputation is not high, however, might offer other compensations to justify its continuation. Naturally, the greater the cost of the school, the clearer must be such justification.

II. PROPOSED PROGRAMS. We turn now to a very brief review of the status of the professional schools at the University of Pennsylvania. The Law School is nationally renowned. In 1972, a joint committee of the American Bar Association and Association of American Law Schools evaluated the School thoroughly and issued a re-accreditation report in which it said:

The Law School of the University of Pennsylvania is one of the nation's great Law Schools, with effective leadership, an excellent though too small faculty, a very good though inadequately supported library, an ample and fully adequate physical plant, and a promising and exciting new program of legal education under way.

To deal with its needs for the future, the Law School has adopted a first class plan for development which is a model of what professional schools can contribute to University development. It includes programs and funding for endowed professorships, research and scholarship, library and financial aid.

Five schools at the University lie in the health affairs area: the School of Medicine, the School of Veterinary Medicine, the School of Dental Medicine, the School of Nursing, and the School of Allied Medical Professions. (In addition to these, the Hospital of the University of Pennsylvania also trains nurses who receive only the R.N. Graduates of the School of Nursing receive either the Bachelor's or Master's degree.)

The School of Medicine and the School of Veterinary Medicine are highly visible within their own professions and to scholars throughout the biological and social sciences. Both exemplify the process by which the liberal arts and sciences

can interact with learned professions to the benefit of both. Both attract talented students; both receive substantial support from the Commonwealth of Pennsylvania; and both are ranked by outside consultants as outstanding in their areas. The School of Medicine and the School of Veterinary Medicine together provide a very significant proportion of the biological research for which Pennsylvania is nationally renowned. But both schools also have serious problems with their clinical facilities.

The University of Pennsylvania is unique among excellent schools of medicine in owning two hospitals. As we have indicated elsewhere, Graduate Hospital has recently generated annual deficits of about \$275,000 in its direct costs. The University has had to meet these deficits. A potentially more serious problem exists at the Hospital of the University of Pennsylvania. The metropolitan area of Philadelphia probably has many more hospital beds than it needs. While HUP has reduced its active beds during the past five years, its occupancy rate is still tending towards alarmingly low levels. Hospital income depends upon patients and on third-party payments from organizations with increasingly stringent standards. The two hospitals owned by the University present a potential financial problem. The Commission recommends:

37. *That the Trustees closely monitor the financial problems posed by owning two hospitals and be prepared for the possibility of giving up some of these facilities.* In the long run, financially costly clinical facilities could drag down the School of Medicine itself.

The School of Veterinary Medicine has a different problem. Instead of too many clinical facilities, its clinical facilities are outmoded and badly need replacement. Steps are under way to obtain necessary financing. The Commission recommends:

38. *That the Trustees support efforts to finance the upgrading of the clinical facilities of the School of Veterinary Medicine.*

The School of Dental Medicine has long had an excellent national reputation. Its external reputation has declined somewhat in recent years but the School is making vigorous efforts to improve its position under its new Dean. The School has a very large student body and trains more dentists than the average school of dentistry. It is one of five schools which received from the National Institute of Dental Medicine a grant for a Center for Oral Health Research. The School of Dental Medicine does not have a competitive advantage in the Commonwealth, for although the schools of dentistry at Temple, Pittsburgh, and Pennsylvania between them train about 10% of the nation's dentists, the high tuition at Pennsylvania compared to the other two keeps down the number of Commonwealth residents who enter our school.

Outside consultants pointed out that schools of dentistry throughout the country rarely meet the intellectual level of schools of medicine. It was said that the School of Dental Medicine at Pennsylvania was no exception. An obvious way of significantly improving dental medicine at Pennsylvania would be to ally it much more closely with other schools at the University. This suggestion is in line with the plans of the new Dean and his faculty to develop multiple curricular tracks. We urge the rest of the University to give the School of Dental Medicine all possible help in this planning phase.

The remaining two professional schools in the health sciences area are the School of Nursing and the School of Allied Medical Professions. The former trains students at the baccalaureate and master's levels. About half of those receiving the master's degree have taken teaching positions in institutions of higher education. The School of Allied Medical Professions offers only the baccalaureate. The faculties of the two schools conduct little research; graduate students in nursing do some research under supervision. The physical facilities of both schools are deplorable and within the next

decade will need replacement. Sources of funding for replacing these facilities are not apparent. Furthermore, merely replacing the facilities would not particularly change the ability of either school to train teachers or to do significant scholarly research.

National demand is increasing for health workers at the subdoctoral level. Except in nursing, there is relatively little systematic effort to train teachers who in turn train the necessary health workers. Furthermore, one entire area where subdoctoral health workers could play major roles remains untouched. This is preventive medicine. A new school of health science education and preventive medicine might be a worthwhile venture for Pennsylvania to consider. Such a school could offer a way of reorganizing or substituting for our present Schools of Nursing and of Allied Medical Professions. The new school would have to train educators in the necessary clinical skills. It also would have to offer training in the behavioral sciences and in education. Significant research could be conducted on development of health science curricula and on new ways of carrying out programs in preventive medicine. The school could draw upon skills now represented in the Wharton School and the Graduate School of Education, as well as other schools. The Commission recommends:

39. *That the President appoint a task force to report in 12 months on the feasibility of a School of Health Science Education and Preventive Medicine that could incorporate and strengthen the Schools of Nursing and Allied Medical Professions and could draw upon the Wharton School and the Graduate School of Education as well as the School of Medicine. The task force should reevaluate the Preston Committee Report recommending phasing out the HUP program to train registered nurses.*

The schools in the health sciences area have their intellectual base in the biological sciences. The physical sciences, and increasingly the biological sciences, provide an intellectual base for the College of Engineering and Applied Science. This includes the Moore School of Electrical Engineering, the Towne School of Civil and Mechanical Engineering, and programs in Chemical Engineering and Metallurgy and Materials Science. The national reputations of the different parts of the College of Engineering and Applied Science differ. Metallurgy and Materials Science seems to get the highest ranking by outside consultants, along with Biomedical Engineering. Engineering in general has suffered a recent drop nationally in student enrollment and federal support, but in electrical engineering these trends may now be reversing.

The parts of the College of Engineering and Applied Science which seem to have a relatively high national standing also make contacts with other parts of the University. This trend should be encouraged and new areas of contact should be sought. One illustrative area of greater interaction would be joint efforts in systems research with the Wharton School. Our survey of the College of Engineering and Applied Science indicates perhaps three out of its eight academic programs are within the first ten in the nation in their respective fields. The survey also indicates, however, that significant improvements could be made at little expense by better interaction with other parts of the University. It is encouraging that the new Dean is already moving in this direction, and is developing a fund-raising campaign on the occasion of the Moore School's 50th Anniversary. In other areas of development, added strength could be achieved without large expenditures of resources. The future of the College of Engineering and Applied Science is of great concern to many other areas of the University. The potential for strong and fruitful interaction exists.

We turn now to the Wharton School, which consists of a group of departments in the areas of business and public management and a group of four departments in the social

sciences. This is a relatively unusual arrangement for a business school. Wharton School is known nationally as having a strong undergraduate program. There also are certain areas of graduate-professional excellence such as finance, insurance, and the emerging program the management of health care. One of the most promising features of the school is that it may provide a base for a new effort by the University in the area of public policy. To this end the Commission recommends:

40. *That the President appoint a task force to investigate and report in 12 months on the establishment of a program in the area of public policy to bring together, coordinate, or strengthen work now represented in or appropriate to the Wharton School, the Law School, the Graduate School of Fine Arts, the Graduate School of Social Work, and the Graduate School of Education and other parts of the University. All these schools have concerns which fall into the area of public policy. The Graduate School of Fine Arts has a national reputation of eminence comparable to that of the Wharton School. Cooperation between these two schools would draw on an established intellectual base. The Graduate School of Social Work recently has indicated interest in such a development, which could ultimately help build for the school a reputation for scholarly leadership on problems of national concern. The Law School, concerned throughout its curriculum with public policy, two years ago initiated a joint J.D.-Ph.D. program in public policy with the Fels Center. In addition, other programs within the University concerned with public policy include: the Master of Public Administration program in Wharton, the Leonard Davis Institute of Health Economics, the National Center for Energy Management and Power, the nascent program in transportation, the Public Policy Analysis program of the Fels Center, Community Medicine, City Planning, Civil and Urban Engineering, and Management Sciences.*

The scope of the public policy program should extend to undergraduate, graduate, and graduate-professional programs of various types. The *undergraduate programs*, open to the College and the School of Engineering as well as Wharton, should provide the students with an opportunity to relate academic discipline and intellectual content to the problems of life and society in which they are immersed; appropriate research and internship opportunities should be provided. It should be possible to design *professional and graduate programs* in combination with undergraduate programs so that an M.A. or a professional master's degree can be acquired in five years.

A program of the sort proposed here might represent a sound academic vehicle through which the University and students can come to grips with some of the practical problems of society in ways consistent with the highest academic standards. A major problem within the University and within society as a whole is to gear research, teaching, and knowledge in the academic disciplines into the production of professionals and educated individuals concerned primarily with societal problems. Increasingly, with higher proportions of the college-age population enrolled in universities, students expect to have on graduation some form of orientation toward the applications of knowledge. At the same time, the problems impinging on society and on the organizations in which these people will work are becoming increasingly complex and difficult of analysis and resolution. As a result, therefore, there is a major intellectual challenge at all levels in education of defining and specifying the connections and bridges which exist between the university's deep concern with academic knowledge and research on the one hand, and its concern with educating alert, active, well-informed citizens who are in many cases professionally qualified as well.

The Graduate School of Education and the School of Social Work merit separate remarks. The reputation and

quality of the former has risen in the last few years under the leadership of its new Dean, although it is not in the top ten nationally. Its programs in reading and in educational administration are outstanding. The School has a good chance to achieve national eminence if it focusses its energies on its best programs and cuts back on its weaker ones. The University's administration should help it organize its admirable movement toward excellence within the current framework of limited fiscal resources.

Turning to the School of Social Work, we see that it trains highly respected practitioners, many of them minority group students, who move into planning, supervisory, and administrative positions in many parts of the country and abroad. It is not currently noted for its research contributions. The School is presently developing a proposal for the creation of a Center for the Study of Social Work Practice. The administration should investigate whether the School can effectively use limited financial resources for the selective development of programs of great scholarly significance.

The Graduate School of Fine Arts has components in the areas of environmental studies and design which might relate actively with programs in the College of Engineering and Applied Science. Within the Graduate School of Fine Arts, the relevant departments of Architecture and City and Regional Planning have excellent national reputations, while the Department of Landscape Architecture and Regional Planning is nationally and internationally preeminent. These units offer a strong base for new cooperative programs with other parts of the University.

The remaining school covered by this report, the Annenberg School of Communications, has an excellent reputation. Although it is relatively young, it has achieved a position of national prominence. It trains faculty for a number of other departments and schools of communication and trains others for positions in the media, and for government and business positions in communication. It should probably not be classified as a professional school. It is already involved in undergraduate education, and plans are underway for even closer relations between the Annenberg School and schools of liberal arts and sciences. In keeping with the concept of *One University*, the Commission encourages such cooperation.

5. BLACK PRESENCE

I. PRESENT STATUS. The University's commitment to include a significant number of black students and faculty in the academic community is now four years old. During that time the number of black students on the campus has risen to 550 or 7% of the undergraduate body (as many as 170 freshmen have been enrolled in one year; this year 140 were enrolled). The University supports significant financial aid to black students, the DuBois Residence and various other activities. On the other hand, while the black undergraduate population has increased significantly, a similar rise in the number of black faculty and administration has not occurred: out of a full-time College and Wharton faculty of 627 there are presently only three blacks. This discrepancy leaves the University in the position of only partially fulfilling its commitment, thus undermining its credibility and failing to create the kind of environment which will attract new black students and faculty of high quality.

At present the University is spending about \$67,000 per year on black programs in addition to a short-term foundation grant of around \$110,000. This money is spread thinly over Admissions, Curriculum and Advising, the Afro-American Studies Program, and the Morgan State Program (see Table 9 for breakdown). Concern currently centers around the drop in the number of black freshmen enrolled this year, the adequacy of criteria being used for admission, and the adequacy of curriculum offerings, tutorials, advising, and other services. Quite clearly the present level of funding is not achieving

the University's purposes at a high level of excellence.

Our black programs represent a very important opportunity for the University to accomplish a number of significant goals: 1) to tap the enormous talent pool that blacks represent as students, faculty and administration; 2) to meet the educational challenge of providing programs which will help black students to utilize their opportunities at Pennsylvania to full advantage; and 3) to meet the even greater challenge of creating the kind of University community in which black participation will become an integral part and which will attract the best black students and faculty to us.

II. PROPOSED PROGRAM. The new program is designed to stabilize the present black programs and to correct serious deficiencies in them. There are four aspects to the proposed programs: A) faculty recruitment, B) admissions, C) curriculum, and D) the Morgan State Program. These will be reviewed in turn.

A. Faculty recruiting. Quite apart from the specific needs of the Afro-American Studies program for faculty (not necessarily black themselves), there is a more general need for the presence of black faculty throughout the University. We need affirmative action to help meet this need. The Commission therefore recommends:

41. *That an effective affirmative action plan be implemented with provision to assure among other things a substantial increase in the proportion of blacks on the faculty.*

The University has an opportunity at the same time to help launch the emerging generation of young black scholars on their academic careers. We propose two crucial steps to help recruit black faculty over the next several years.

The Commission recommends:

42. *That an academic officer, ideally a black faculty member, devote two-thirds time to identifying and helping recruit black faculty.* This officer needs funds for his/her salary, travel, and assistance. He/she also must be able to help departments suffering concurrent budgetary stringencies to obtain the services of promising candidates. To achieve these ends, the Commission recommends:

43. *That a faculty investment fund of \$350,000 be generated for the purpose of helping identify and recruit black faculty for all areas.* This fund should be established under the Office of the Provost to whom the academic officer in charge of recruiting will report. Candidates may be identified by the department or may be brought to the attention of the department by the officer in charge of recruiting. In the event that a department wishes to hire a black candidate but is unable to pay for the position, the fund will provide up to one-half of the cost of the faculty salary for a maximum period of six years. The department will follow normal procedures in deciding whether it wishes to make an offer to the candidate. If special recruiting funds are used to cover part of the salary, the department should assume full fiscal responsibility for the position as soon as funds become available through faculty retirements, departures, or normal increments in departmental budgets.

B. Admissions. The problems faced in black admissions are simply a special case of the problems faced by admissions in general. Hopefully, the proposals made here would be part of a general strengthening of our admissions procedures. First it is necessary to have more blacks participating in the recruitment and admissions process and this can be done by inviting students to help staff. Second, the admissions staff should have funds to travel and to cover expenses of candidates they bring to campus. Third, they need an effective brochure. Fourth, and most important, funds are needed for research into questions of "alternative predictive indices" for black students, adequacy of financial aid packaging, summer work-study programs, and coordination of undergraduate and graduate education. The Commission recommends:

44. That funds be provided for better staffing and better equipping our admissions office, to solve immediate problems in black admissions and to permit research into significant, longer-term questions of admissions policies and procedures in general.

C. Curriculum. Because of limited funds and an inadequate number of faculty, the present *Afro-American Studies Program* is not comprehensive enough to constitute a formal major. What is needed is an operating fund of about \$34,000 for the undergraduate programs, \$65,000 for three to five full-time University faculty, and \$35,000 for five to ten part-time faculty who will teach in the program. To this end, the Commission recommends:

45. That the *Afro-American Studies Program* be provided with a regular operating fund for its undergraduate programs and funds for three to five full-time and five to ten part-time faculty.

In addition to providing more faculty in *Afro-American Studies* and operating funds for teaching undergraduates, there is a need for curricular development and better educational concepts so that better career and educational options are opened for students in the Program. This would involve investigation of *Afro-American* programs at other Universities and modes of cooperating with them as well as experimental programs on this campus at the undergraduate and graduate levels. The Commission recommends:

46. That an *Institute of Afro-American Studies* be started parallel to our present *Afro-American Studies Program* and with the same director, and that funds be made available for two additional full-time faculty attached primarily to the institute. Most important in any curricular development is the role of advising. To handle the needs of a projected 60 freshmen and 30 post-freshmen during the summer, approximately \$120,000 is needed for advising, counseling, and educational programs that go beyond the regular curriculum. During the academic year about \$80,000 is needed for staff and equipment for orientation, tutorials, advising, and placement programs. Finally for graduate student advising, for transitional summer courses and for flexibility in financial aid to let graduate students take special skills courses and undergraduate courses, \$124,000 is needed. Therefore, the Commission recommends:

47. That special programs for advising, orientation, special education, and career counseling be adequately funded to cover the full range of needs from the pre-freshman summer to graduate study.

D. Morgan State Program. The cooperative program between Morgan State College and the University of Pennsylvania is one example of the kind of innovative program which can grow out of a healthy black presence at the University. The program has been going for six years, first supported by Federal funds and now by \$20,000 from the 1907 Foundation. The program has provided for student exchange, limited faculty exchange, some facilities and cultural exchanges; also it makes the effort to increase the number of Morgan graduates who are accepted into Pennsylvania graduate programs and to enable Morgan faculty to pursue the Ph.D. degree here.

Successful pursuit of this program requires stable sources of funding and additional funds as well as clearer administrative organization, including provisions for program evaluation. Therefore, the Commission recommends:

48. That the *Morgan State College-University of Pennsylvania Cooperative Project* budget be increased, stabilized, and strengthened administratively to permit effective long-range planning.

Immediate funding. Because the programs proposed here are designed to allow us to take a major step forward in developing a suitable black presence at Pennsylvania, they require immediate and stable funding. The Commission members

TABLE 9

Present and Anticipated Costs, Black Presence
(in thousands of dollars)

	Present Level	Five-Year Projection				
		I	II	III	IV	V
FACULTY RECRUITMENT						
Faculty Investment Fund	—	50	100	100	100	—
Afro-American Studies	12		100	100	100	100
Institute	—	—	35	35	35	35
ADMISSIONS						
Recruiting	5.8	20	20	20	20	20
Research	—	25	50	50	50	50
CURRICULUM						
Institute	—	60	35	35	35	35
Afro-American Studies	20	34	34	34	34	34
ADVISING						
Freshman Year	113	120	120	120	120	120
Other Undergraduate	10	80	80	80	80	80
Graduate	—	124	124	124	124	124
MORGAN STATE PROJECT	20	50	50	50	50	50

discussing the work team's proposals recognized the significance of such a step in terms of both academic goals and the practical implementation of affirmative action programs. We see it as a responsibility of the entire University. The Commission therefore recommends:

49. That each cost unit of the University devote an appropriate flat percentage of its expense budget to provide a \$500,000 to \$600,000 operating budget for the proposed programs for an effective black presence at Pennsylvania. (See recommendation 19 under Reallocation.)

III. ANTICIPATED COSTS. See Table 9 above.

IV. OTHER CONSIDERATIONS. The proposals offered here relate to every aspect of the development of the University, including undergraduate and graduate education; endowed professorships, scholarships, financial aid, admissions. While black students have special needs and concerns, their problems are only indicative of our broader problems, whether in admissions, advising or educational programs.

These proposals reflect our experience to date in developing a black presence on the campus. The University's first efforts were almost reflex responses to pressing needs, supported by short-term funds. The present proposals attempt to stabilize these gains and move forward into faculty recruiting, improved curriculum and advising and to bring more black administrators into academic decision making.

The programs must of course be subject to periodic review and evaluation by the same mechanisms proposed in other parts of the Commission's reports. In the long run, their success or failure will be judged in terms of their academic contributions not only to the black students, but to the University as a whole.

6. INTRAUNIVERSITY COOPERATION

Historically, the University of Pennsylvania has provided a ready opportunity for interdisciplinary research and teaching, often by encouraging the formation of interdisciplinary graduate groups, centers and institutes, and special programs that cut across departments and schools. Such arrangements bring all the advantages of hybrid vigor, academically and fiscally, and they often are the instruments with which liberal arts and sciences make their contributions to the solution of professional problems and problems of the practical world. As such they are very much in keeping with the concept of *One University*.

However, such arrangements can bring disadvantages to the academic community. Sometimes they may divert the faculty away from teaching or orient research away from academic goals toward practical ends regardless of merit. They may compete with schools and departments for funds and personnel in ways that weaken the structure of the University. At times they have been guilty of exploiting both faculty and students. And short-term funding from external sources has been known to bring problems.

None of these disadvantages need exist if proper guidelines such as the Gomberg Report on Team Research (1972) are followed, if the faculty of centers, institutes and programs have *bona fide* departmental appointments, and if the quality of their academic work is reviewed periodically by Deans or the Vice Provost for Graduate Studies and Research or the Vice President for Health Affairs. Under these guidelines, interdisciplinary centers, institutes, and programs can be woven into the fabric of the University and will only serve to strengthen departments and schools.

The Commission divided its efforts on this topic into two parts: 1) a survey of our present centers and institutes, and 2) recommendations for improved use of computers in research and teaching.

Part I. Centers and Institutes

I. PRESENT STATUS. There are somewhere between 65 and 75 Centers and Institutes in the University. Many of them lie within one school and sometimes even within one department. They are not always interdisciplinary, but most of them are. Some appear to be relatively inactive and have no special funds. Others are well funded, a few with endowment, but most with outside, short-term funds from government agencies and foundations. A few call upon University funds. The following short list illustrates the variety that may be found in the University's centers and institutes:

- Center for Oral Health Research
- Eldridge Reeves Johnson Foundation for Medical Physics
- Fels Center for Government
- Institute for Environmental Medicine
- Institute for Neurological Sciences
- Laboratory for Research on the Structure of Matter
- Leonard Davis Institute for Health Economics
- Monell Chemical Senses Center
- National Center for Energy Management and Power.

New centers and institutes are being proposed all the time and we clearly must develop workable guidelines for their operation.

II. ACADEMIC GUIDELINES. To achieve excellence in the operation of centers and institutes in the University, the Commission recommends:

50. *That centers, institutes, and the Museum be subject to the same kind of periodic academic review as departments and schools.* Where the center or institute is within one school, the responsibility lies with the Dean; where a unit falls between schools, responsibility should lie with the Vice Provost for Graduate Study and Research, or with the Vice President for Health Affairs if the unit is mainly in the health area.

51. *That faculty members in centers or institutes have bona fide appointments in departments or schools and contribute to teaching.* All tenured faculty should be paid on department budgets or out of endowed funds if available. Explorations should be made, however, of the possibility of term appointment of senior faculty under certain conditions.

52. *That centers and institutes operate within the same kinds of fiscal constraints as departments and schools and not become financial liabilities to the University.*

III. ANTICIPATED COSTS. The range of costs involved in the creation of new centers is so great as to render any present estimate meaningless. Review of long-term obligations

should be an integral part of the decision-making process, however, and the University should clearly define the life expectancy of centers when support is for a short term.

IV. OTHER CONSIDERATIONS. Centers and institutes can contribute significantly to goals outlined elsewhere in this report for *undergraduate education* and for *graduate education*. They are also ideal places for some of the *endowed professorships* and for *named endowment funds* raised for specific research programs. Proposals for endowed professorships and named endowment funds should be put forth by our stronger centers and institutes.

In addition to periodic review of present centers, we will need review of new centers and institutes. While it would be a mistake to inhibit imaginative ideas in the formation of new programs, quality control should be exerted and sheer expansion should be avoided.

Part II. Computer Programs

I. PRESENT STATUS. The University now spends more than \$2,000,000 a year on computing, including funding from contracts and grants. The principal activities are as follows:

Computer Center: IBM 370/165 through the Science Center's UNI-COLL.

Administrative data processing: IBM 360/40 plus UNI-COLL.

High energy physics: IBM 360-65.

Moore School SPECTRA 75.

Medical School PDP 10.

The effort to coordinate computing activities is made through a Director of Computing Activities and a University Committee on Computing.

The two principal formal academic activities in the computer field are: 1) the Moore School's program for Computer and Information Sciences, offering an M.S. and Ph.D. and 2) the Wharton School Management Department's Management Information Systems program, offering a M.B.A., and Ph.D. through the Graduate Group in Applied Economics.

II. PROPOSED PROGRAM. Future computer developments on the campus should include coordination of existing computer facilities and programs, and making the computer more accessible to potential users throughout the University. There should also be development of data base management, higher level languages and their associated compilers, and disciplinary approaches to computer utilization. To achieve these and other ends the Commission recommends:

53. *That a Center for the Technical Enhancement of Academic Programs be established under an endowed professor with eight to ten postdoctoral fellows and one endowed professor.* Some of the fellows would be in the Center, but a number should be located in the departments. Faculty in the Center would encourage and assist their colleagues in the use of computers to enhance research and education through computer simulation of scholarly or professional problems and their solutions. The social consequences of computer technology might be included in the Center's investigations as well.

As departments and programs begin to utilize the computers, they should support the postdoctoral fellows and faculty involved out of their own budgets. Furthermore, it is possible to conceive of a fund to provide additional operating income through the purchase of a \$6,000,000 IBM computer, to be leased to UNI-COLL. We should of course seek support in the form of a gift rather than purchase of equipment.

III. ANTICIPATED COSTS.

Equipment purchase option	\$6,000,000
One endowed professor	750,000
10 endowed fellows	2,000,000
	<hr/>
	\$8,750,000

7. CONTINUING EDUCATION

I. PRESENT STATUS. The various continuing education programs (for students not admitted through the standard admissions procedure to the standard degree programs for full-time day undergraduates or graduates) have been considered as tangential to the main purposes and programs of the University and have received little central attention, planning or control although they have been with us since the founding of such studies in 1894. Today there are more than a dozen major continuing education programs at the University with an enrollment of 10,000 in 1970-71. Of this total, about 8,750 were enrolled in credit courses. Some of these students take short courses, while others are in full degree programs. Some are from disadvantaged areas, others from well-to-do suburbs. Some want professional upgrading, others a liberal education.

The University has not used the potential of this interest in and need for continuing education to its advantage. This is especially true in that (a) it has failed to use this group of students in a determined way as a resource for the enrichment of the regular student body and (b) it has yet to update its view of the educational process to see it as an ongoing and lifelong process rather than as an age-bound degree program. A change in these viewpoints would require that the University abandon an attitude which merely tolerates those continuing education programs which conveniently do not compete with "regular" programs for resources and space, and instead actively take advantage of the increasing market need for renewed education in the face of rapidly changing social and technological forces. Five distinct groups in our society demonstrate the current parameters of such need:

- students who have interrupted their education
- individuals desiring intermittent education throughout life to meet the technological and social pace of change
- those from minority groups who cannot take advantage of traditional college education
- women who desire professional and liberal education for career mobility
- people of all ages who have the leisure for educational enrichment.

Pennsylvania has a significant contribution to make to select individuals within each of these groups; however, these individuals also have an important quality and diversity to contribute to Pennsylvania.

II. PROPOSED PROGRAM. "Continuing education" as a concept is a somewhat artificial and divisive categorization which leads to resource and admissions discrimination against deserving and talented students. It is this basic inequity which weakens the University qualitatively. We do not suggest that Pennsylvania embark on a massive part-time program, nor do we propose including students who can be and are well served by other area institutions. We do not suggest that the University change its basic attempt to achieve excellence in scholarship and education in order to serve a mass market. We do think that the University ought to adopt a flexible admissions policy aimed at the inclusion of diversity in both age and experience and provide for a continuous educational process available to students as they perceive their needs for further education. The pursuit of a life of intellectual curiosity and growth should suffer no time constraints on the educational opportunities supporting it. In line with these comments the Commission recommends:

54. *That the University facilitate counseled egress and re-admission for full-time students to allow for education based on need throughout life.*

55. *That we weigh more heavily maturity, experience and motivation in the admission of full-time students and that we actively recruit students with broader experience.*

56. *That a faculty-student committee be established to coordinate policy for Continuing Education consistent with*

University objectives and to administer a Continuous Education Development Fund.

57. *That the College of General Studies and the Continuing Education Program be combined into one division headed by a Dean responsible for admission, counseling, and curriculum.*

58. *That movement of students between College of General Studies courses and regular courses be made easier.*

59. *That financial aid be provided for part-time students in proportion to revenue as is the case with full-time students.*

60. *That pre-higher education programs be expanded only where they provide remedial work for students accepted as college students or where they are intended to isolate applicant potential for admissions purposes.*

61. *That a Continuing Education Development Fund be established. Seed money for innovation and research on continuous education programs is needed both to help focus effort on continuous education and to provide for start-up costs where necessary. The annual budget should be \$100,000.*

62. *That a Continuing Education Scholarship Fund be established. The provision of funds for scholarships is needed to support students of particular merit and quality. A program similar to the Benjamin Franklin Scholars programs for undergraduates should be instituted for continuing education part-time students. Though there would be such scholars designated without need, it is proposed that 200 scholarships be set up resulting in an estimated cost of \$20,000.*

Though the centralized program can provide needed incentive, the real thrust to improve the quality of continuing education must come from the various academic divisions of the University. Though most of the existing programs are largely self-financing, additional funding for such programs must be sought on the merits of each proposal. Examples of current and proposed programs and their costs are:

Dental School. A new program is designed to convert Ph.D.'s in the physical, biological, and engineering sciences to Doctors of Dental Medicine. The program has a grant of \$250,000 from the Bureau of Health Manpower, National Institutes of Health.

Educational Television. A cooperative program between the College of General Studies and Channel 10 provides early morning courses. Though production costs are borne by Channel 10, additional funding is needed for the preservation of taped courses for rerun purposes and other on-campus uses. Total costs would amount to \$20,000 per year.

Community-Wharton Educational Program. This program provides managerial training and a trial college experience for disadvantaged students of ability. Annual budget needs from external sources are \$15,000.

Certificate and Diploma in Arts. This program develops one and two semester intensive study opportunities for college graduates who have been out of school more than ten years. A four-year experimental program is budgeted at a total cost of \$2,853,000.

These various efforts deserve some measure of University support within an overall policy framework. The Commission therefore recommends:

63. *That there be further study of the needs of the various existing programs and evaluation of them with the aim of developing funding proposals for the best ones as soon as possible. Evaluation and development of proposals should be the responsibility of the Coordinating Committee proposed in recommendation 56. The quality of all programs should come up to University standards, and all such programs should be subject to periodic review.*

III. ANTICIPATED COSTS.

Financial aid to part-time students	to be determined
Continuing Education Development Fund	\$100,000
Continuing Education Scholarship Fund	20,000
Educational TV	20,000
Community-Wharton	15,000
Others to be developed.	

8. INTERINSTITUTIONAL COOPERATION

The University is involved in a maze of consortia, course interchanges, affiliations, joint agreements, and other of the numerous domestic and foreign arrangements that are known as interinstitutional cooperation. Unfortunately, however, we do not have a University-wide structure or strategy, and in most cases these programs have a low, almost invisible profile; they often remain remote from undergraduate teaching programs, and in general they display symptoms of administrative neglect, curricular sterility, and financial frustration. The Commission directed its attention to these problems in the domestic and foreign spheres together, but for purposes of reporting, it is simpler to treat them separately.

Part I. Foreign Interinstitutional Cooperation

I. PRESENT STATUS. There are some 20 "study abroad" programs of varying quality and activity that are available for Pennsylvania students. Of these, the best known and most functional are: the Thouron-University of Pennsylvania Fund for British-American Student Exchange Scholarships for graduating seniors or graduate and professional students, the Romance Language Teaching Fellowships, The Jussierand Traveling Fund in modern languages, Penfield Scholarships in diplomacy, international affairs and belles-lettres, and the Pahlavi-Pennsylvania exchange, primarily in the medical areas. In addition, there are other types of arrangements such as the Wharton School's Multinational Enterprise Unit and the Institute of Neurological Sciences-Nencki Institute (Warsaw) Agreement.

II. PROPOSED PROGRAM. Foreign interinstitutional cooperations should encourage our students and faculty to acquire overseas professional experience and to facilitate contributions to our academic programs here by foreign students and faculty. The growth of such a foreign cooperation program should be incremental and orderly. Many of the recommendations made below must be evaluated further and should reach the size ultimately proposed over a period of years only if they prove of substantial value and interest. Such overseas opportunities should be sought at an institutional level with the insistence that these activities contribute to domestic teaching and research interests, thus academically strengthening our programs rather than just drawing off resources. In the process Pennsylvania should play an important role in the internationalization of learning in general as well as acting as a bulwark against provincialism in America.

The program might be initiated by adopting an official viewpoint that periodic foreign sojourns are part of the faculty's University responsibilities with the aid of foreign research-study fellowships. The Benjamin Rush Visiting Scholar Program in psychiatry provides an excellent model here. An inventory of existing overseas experience and contacts of the faculty would prove enlightening to the University community and indicate possible areas for development. The coordination of the University's foreign student program with that of International House should be pursued with the aim of maximizing their usefulness in creating an international atmosphere on the campus.

As part of this general program of opening out the University to foreign contacts and experience the Commission recommends:

64. *That a program of endowed visiting professorships for foreign scholars, artists and humanists (10) be established.* These endowed chairs would have a normal tenure of one year with funds to cover travel, salary and secretary, interpreter or research support. The criteria of selection would be (1) outstanding contribution to knowledge in his/her field, or to development of his/her art, and (2) ability to expose the University of Pennsylvania community to the ideas, life styles, and contributions to modern society of the

world's most outstanding men and women. The holders would be given the opportunity (1) to teach both undergraduates and graduates, either separately or together and (2) to make a concrete contribution to the University community either in print (lectures), in performance, in exhibition, or in the formation of a new program. The ten Visiting Professorships should be distributed among the major world areas: Europe and U.S.S.R. (4), Asia (3), Near East (1), Africa (1), Latin America (1).

65. *That a program of endowed instructorships for University of Pennsylvania Ph.D. candidates (10) be established.* An endowed instructorship would be used either at a domestic or foreign institution, perhaps on an exchange basis but not necessarily so, to provide requisite teaching or professional experience to University of Pennsylvania candidates, thus increasing their competitive position in the job market while improving their quality as teachers and at the same time providing other institutions the services of young teachers or professionals where they could not normally support a permanent appointment. (For a model see the University's support of the South Asia Consortium of five Pennsylvania colleges).

66. *That a program of endowed instructorships for Ph.D. candidates (or young foreign scholars) from other institutions in the U.S. or abroad (5) be established.* These would be highly competitive, prestige grants used to invite the cream of the Ph.D. candidate crop from the best American programs or young scholars from foreign institutions to begin their teaching careers at the University of Pennsylvania on a part-time partially affiliated basis while completing their dissertations. Such a program would go far in ensuring high quality input into our lower levels of the professional ladder. We should have a clear intent to keep such people as regular members of the faculty. Each appointment would be for a minimum of one year's tenure (with a possible extension to a second year) with eligibility contingent upon completion of all course work for the Ph. D. except dissertation or suitable equivalent for foreign scholars.

67. *That a program of endowed undergraduate scholarships for study abroad and away (10) be established.* The aim of the program would be to overcome undergraduate parochialism and to insure that study abroad or away would no longer be a privilege only of the rich. The scholarships would be assigned to on-going undergraduate programs, particularly those involved in area studies, language studies or international studies, but not to exclude any field where a clear case can be made for study abroad or away. A further aim would be to support unusual or worthy individualized majors. The criteria for selection should be so devised that study abroad or away becomes possible for the student who will gain the most from the experience (not necessarily the student with the highest grade-point average) as recommended by his/her department. Preference should be given to candidates who will return to the University of Pennsylvania campus after the study experience and who will likely thereby contribute to broadening the horizons of the University community.

68. *That an endowed traveling scholars' program for graduate students (10) be established.* The aim of this program would be to permit advanced students to take courses or pursue research for one or two semesters at a domestic or foreign institution offering specialized training unavailable at the University of Pennsylvania.

To carry out the various recommendations of this program the Commission further recommends:

69. *That an Office of International Affairs headed by a Director be established reporting directly to the Provost.* This office would assume administrative responsibility for the Office of Fellowship Information and Study Programs Abroad, foreign affiliations, international professorships and traveling scholarships, department and school liaison, advising of

foreign students, and general cutting of red tape. It would assume responsibility for stimulating and assisting in development of innovative international programs and relationships including the possible establishment of units of Pennsylvania abroad, for developing work-study programs abroad, and for pursuing federal and foundation grants for international studies. It would especially aim at stimulating the improvement of University visibility in terms of its international connections, and would undertake as one of its first tasks the introduction of some order into the various junior-year and summer-study programs. As a general rule the University should cooperate with existing programs rather than initiating its own, unless there are compelling reasons otherwise.

70. *That students in general be actively encouraged to study abroad for a year, a term, or a summer. Language departments especially should be encouraged to help their majors to receive part of their training in the countries where their languages are spoken.* In this connection the Commission feels that the teaching of foreign languages at the University of Pennsylvania would benefit from closer examination. Given the different problems which face those teaching Indo-European languages as opposed to Oriental languages, and given the growing availability of audio-visual devices as a supplement in instruction, we would expect to see some changes occurring in this area. We refer our report on these questions to the newly formed Tonkin Committee on Foreign Language Study with the suggestion that a member of the linguistics department be added to that group if not already present. We also request that the Committee include in its review the teaching of English as a foreign language to our foreign students.

A rather different kind of approach to foreign interinstitutional cooperation would be a program for creating *world centers of excellence*, jointly sponsored by Pennsylvania and other foreign Universities. Faculty for these centers would be drawn from all over the world and could hold senior positions at the University of Pennsylvania. The Wharton School could begin to initiate a program of developing such joint centers of excellence within the next year and a half if financial support were forthcoming from U.S. and foreign governments and institutions. These centers would initially be located in a limited number of countries in Europe and the Far East. This basic strategy is opposed to the "enclave" or "colonial" approach used previously by other institutions in which a single sponsorship of a national approach prevailed.

To investigate these ideas further and to facilitate implementation of them, the Commission recommends:

71. *That the proposed Office of International Affairs make an assessment of current multinational programs, especially those of Wharton, so that a specific proposal can be made for taking a first step by building on existing strengths.*

III. ANTICIPATED COSTS. Costs need to be determined for:

Office of International Affairs (Director and operating costs)

10 Endowed 1 year Visiting Professorships

10 Endowed Instructorships for Ph.D. candidates from Pennsylvania

5 Endowed Instructorships for Ph.D. candidates from outside Pennsylvania

10 Endowed Undergraduate Scholarships for Study Away

10 Endowed Graduate Traveling Scholarships

One source of funds that has yet to be explored fully is foreign donors, particularly business, University of Pennsylvania alumni abroad, and foreign governments. Another possible source is American business operating abroad.

IV. OTHER CONSIDERATIONS. Academic excellence must be guarded while implementing this program so that it does not become just a series of area programs. The aim must be maintained to interject points of view and data from other cultures into various disciplines so that students are able to

view fundamentals rather than current practice with the advantage of international models. The entire program like all others in the University would undergo periodic and systematic review. A schedule for evaluation should accompany the adoption of the program.

Detailed planning for selection mechanism, etc., would be the responsibility of the Office of International Affairs once established. In making appointments the aim should be to open up as many disciplines as possible in the University to foreign points of view—not only those normally working in or on foreign studies.

Part II. Domestic Interinstitutional Cooperation

I. PRESENT STATUS. There are over fifty institutions of higher learning within twenty-five miles of the University of Pennsylvania campus. There are substantial opportunities for mutual enrichment of educational programs and for effective savings in undergraduate and graduate education through non-duplication of course offerings, increased class size, joint faculty appointments, and so on. This sort of cooperative effort by neighboring schools is what is strongly recommended in a recent Carnegie Commission report. Such cooperation provides the University with an opportunity to exercise educational leadership among Philadelphia area colleges and universities.

II. PROPOSED PROGRAM. Although a great many arrangements exist for domestic consortia, affiliation and the like, there is no administrative center charged with the specific duty of facilitating and promoting such arrangements on a University-wide basis. The opportunities for development in this area call for the fundamental strengthening of the University's way of dealing with the problems involved. Therefore, the Commission recommends:

72. *That an Office for Cooperative Educational Exchange be established headed by a Director reporting directly to the Provost.* This office would be charged with a) coordinating and evaluating all domestic study-away and field work programs, resolving red-tape problems, and exercising admission control for exchange students (at present there is no way to handle this effectively); b) developing Philadelphia area consortia, along with state and other domestic affiliations (Morgan State, Ivy League programs, etc.); c) overseeing contractual arrangements relating to these activities; and d) operating an *Educational Resources Center* which would bring together in one place in College Hall college catalogues and other educational reference materials such as Foundation Directories, books on education, etc., which are now scattered through Penniman Library, the Office of Fellowships and Study Programs Abroad, the Admissions Office and various Administrative Offices. This effort should be undertaken with the help of the Library, and the Center's materials be accessible to students interested in transferring or in graduate study, as well as to administrative officers housed in College Hall. The Center could also maintain a catalogue of course offerings in Philadelphia area schools. The Commission further recommends:

73. *That the Office of the Vice President for Management investigate the possibilities of cost-cutting and other benefits from combined planning and operations, security, purchasing, housing, etc. with other Philadelphia institutions in the immediate area.*

Of the many possible new programs in this area of domestic institutional cooperation only one is far enough advanced to justify presentation in this report. The Commission supports it and recommends:

74. *That a Philadelphia Semester be developed, focussing on the study of colonial history and civilization and the American Revolution as a study in the mechanisms of change in society's institutions.* The University of Pennsylvania possesses a special strength in its faculty in relation to American

History and civilization of the colonial period and, by virtue of its location in Philadelphia, a unique relationship to the American Philosophical Society and other local institutions housing existing source materials of that period. The question is how can the University best benefit from the combined assets to draw to it students and scholars from across the country and abroad and at the same time make a significant contribution to American colonial history. The opportunity is timely because of the forthcoming Bicentennial celebration. The opportunity also exists to exercise University leadership in organizing regional resources in a cooperative effort centered in this study.

We are recommending a Philadelphia Semester program which could also help coordinate other University programs related to the American Bicentennial. For the Philadelphia Semester, a program of courses supplemented by lectures, seminars, conferences and field trips would be drawn up and administered by the faculty of the college. This faculty, appointed by the Provost, would be drawn from the existing faculty in American Civilization, History, History of Art, History and Sociology of Science, and other appropriate departments. The Director of the program would serve as Master of the college which would be housed in existing residential space (see *Educational Living*). Additional scholars from other institutions in this country and abroad would be invited as visiting professors for one or two semesters. The college would have a student body of 100 students per semester drawn from the University, from other institutions at home and abroad, and from alumni and members of the Philadelphia Community. Admission would be by application and would be highly selective. As space permits Pennsylvania students majoring in American History or American Civilization with a concentration in the colonial period might be granted "associate" status in the program with the right to participate. The academic core would consist of courses already in the curriculum with some new courses created especially for the program. Each student would take work equivalent to five course units. Each would pay the regular tuition plus a \$150 service fee to cover the cost of field trips and other events. Some of the regular courses would be offered also in evening and summer schools where other interested students and community members (including alumni) could take them.

III. ANTICIPATED COSTS. An endowment of \$3,000,000 has been suggested. Operating expenses are estimated at \$545,000 a year with income projected at this level assuming a 4% return on endowment yielding \$120,000. The program is designed essentially to pay its own way once an endowment base is established.

9. ENDOWED PROFESSORSHIPS

I. PRESENT STATUS. At present, there are 91 named or endowed professorships in the University. Of these, six are University Professors and nine are Benjamin Franklin Professors. Among the 76 remaining, only nine are endowed at our present target level of about \$750,000 or above, and ten are endowed at our earlier level of about \$500,000. Less than 30% of our chairs have incomes over \$20,000 a year. Six have no funds whatever attached to them; 13 are vacant at present. Of the vacant chairs, two are endowed at \$600,000 and one at over \$900,000; a fourth will be established at about \$750,000 upon the retirement of a faculty member for whom it will be named.

Our present problem can be summed up briefly: too few endowed chairs, too many of them underendowed, and too many unfilled too long. A goal of 100 additional endowed professorship is by no means too high for the academic programs proposed here. We probably should go beyond it if the University is to move forward in the next decade and keep itself on a sound financial basis.

II. PROPOSED PROGRAM. Endowed professorships must be tied to educational and scholarly programs, and shortly we will summarize the program needs described throughout this report that call for endowed chairs. First, however, we should make recommendations about the variety of types and forms of endowed professorships we feel are necessary.

Objectives, Tenure and Terms. The traditional endowed chair functions to free the *outstanding scholar* from financial, academic, and administrative concerns and to allow him to devote all his energies to his creative work, while at the same time it honors him. The holder is usually a full professor, and tenure is for his or her academic life. We need such endowed chairs. In addition, however, we need chairs that serve the purpose of the *outstanding teacher*, especially if we include endowment that allows funds for teaching assistance and teaching materials.

In some instances, an endowed chair should be for a younger faculty member, perhaps an assistant professor, and in such a case, a *five-year term* might be optional. Here the chair could free a young person to try innovations in curriculum or it might serve to help develop research programs at new frontiers of knowledge. One very exciting idea is to have endowments for the recruitment and development of the most able young faculty. The Pennsylvania Plan already does this most successfully for the Medical and Veterinary Schools, and the idea could profitably be extended to other parts of the University.

Even endowed chairs permitting *one-year terms* for different people could be fruitful. In the case of our own faculty, they could provide a special opportunity for development and testing of new educational ideas. For outside faculty, it would be equivalent to a visiting professorship program. The Commission recommends:

75. That Endowed Professorships serve both outstanding scholarship and outstanding teaching, but that they also serve to encourage innovation in both educational and research programs; that some be for life, and others for five-year terms or less.

Resource Funds. One of the most important aspects of an endowed professorship is not so much the salary as it is the availability of resources through supplementary funds. These may provide younger colleagues at the assistant professor rank, a research associate, teaching assistants, a technician, a secretary, research funds, travel funds, and funds for visiting scholars.

Outside vs. Inside Appointments. While an endowed professorship is a powerful instrument in recruiting new faculty from the outside, it can also serve to help us retain the best faculty members we already have on this campus and to strengthen their hands academically. Neither of these uses should be overlooked. Hopefully, only our academic goals and standards will determine the choice in any case.

Departmental vs. University Appointments. Most endowed professors should be members of a department or function within a specific program, for this gives them a stable mechanism through which to have their academic impact. Ideally, an endowed chair should not be inflexibly bound to a department or even a school. But even within a departmental structure, it should free the professor from routine academic duties and strengthen his or her hand in the attainment of scholarly and educational goals. A minority of the endowed chairs should be University wide, free of specific departmental or school responsibilities.

Grouped Chairs. It may be attractive to think in terms of chairs that would complement each other in teaching or research or both. This would be a natural outcome as long as endowed professorships are parts of broad educational and scholarly programs of departments or schools.

Level of Endowment. Chairs with endowments of up to \$1,000,000 would provide resource funds for scholarly activities as well as salary. Chairs endowed at \$750,000 would primarily provide salary. We should not develop any new chairs with endowment under \$750,000, for that would detract from our efforts to raise money for substantial chairs. However, we might consider the use of named endowment funds.

Named Endowment Funds. Lesser amounts of money, around \$200,000 each, could be sought primarily for endowment of programs with resource funds. An endowed professor could be the director of such a fund, and this could serve as a way of adding resources to presently underendowed chairs. It would also be a way to fund educational and research programs associated with a particular professor or group of professors who need not be holders of endowed chairs.

In the light of these ideas, the Commission recommends:

76. That endowed professorships be developed to support some of our present faculty as well as to recruit outsiders, that most professorships be associated with specific departments and programs, and that levels of endowment be such as to provide resources for educational and scholarly programs.

77. That we specifically seek to make available resource money for our endowed professors and other professors as well, through a fund-raising program for Named Endowment Funds.

The success of these two recommendations will depend upon our ability to fill our currently vacant named chairs. We cannot go out and seek new funds for endowed professorships if we are not filling the ones we already have and if we do not have more effective mechanisms for utilizing new chairs.

III. ANTICIPATED COSTS. One hundred endowed professorships at \$750,000 each comes to a total of \$75,000,000. If 25 of our chairs are at the \$1,000,000 level, the total is \$81,250,000. If in addition, a Named Endowment Fund brings in 25 endowments averaging \$200,000 for program resources, this is an additional \$5,000,000.

Thus we are thinking in a range of fund-raising from as little as \$75,000,000 to as much as \$86,250,000.

IV. OTHER CONSIDERATIONS. The following list attempts to summarize the possible distribution of endowed chairs across programs in terms of the best estimates we can make at the present time.

<i>Undergraduate education</i>	
Residential education	5
Masters College	5
University Scholars Program	10*
Creative and performing arts	5
Excellence in teaching	15
	40
<i>Graduate education</i>	
To help develop graduate programs selected for strengthening	15*
<i>Professional schools</i>	
To meet needs for programs and instructional development	
Health affairs schools	13
Law	5
Wharton	6
Engineering	4
GSE, SSW, Annenberg, GSFA	6
	34
<i>Centers and Institutes</i>	
For program development	9
TOTAL	100

* Five of the ten chairs in the University Scholars Program would be essentially at the graduate level but would function toward bridging the gap between undergraduate and graduate education. Thus they could be equally well considered as part of the effort to strengthen graduate programs, making the 15 graduate level chairs listed here 20, as recommended under *Graduate Education*.

Listing the distribution of endowed professorships according to programs does not imply restriction to those programs. Undoubtedly, the professor in graduate education, for example, would also be involved in undergraduate or professional education.

Further planning. The recommendations and estimates given here are only a starting point. We need a mechanism whereby specific proposals for endowed professorships are generated through departments, schools, programs, centers, etc. These, then, could be evaluated by a University planning mechanism which should serve to identify well developed proposals for endowed chairs and move them into the Development Office for the fund-raising phase as soon as they are ready. In a few cases, where it seemed warranted, a start could be made in showing what a proposed program can do using reallocation funds for annual costs for a few years.

Evaluation. Plans should be made now to evaluate all existing and new endowed chairs whenever there is a change of incumbent. In addition to recommending the best candidate for holding a professorship, each search committee should review both the objectives and the terms of the endowed professorship to determine whether or not the best use is being made of the chair insofar as the terms of the endowment allow.

10. ENDOWED SCHOLARSHIPS AND FELLOWSHIPS

Financial aid for undergraduates, graduate students, professional school students, and even students in continuing education programs is becoming an increasingly important problem, especially as tuition and living costs go up at the same time that we have larger and larger numbers of highly qualified economically-disadvantaged students. Grant aid at the University of Pennsylvania has increased extensively over the years and has kept us competitive with other private institutions. However, most of this aid comes from unrestricted University budgets; our endowed scholarships for aided students are relatively low, and thus increasing aid has very largely derived from increasing tuition. Many programs for financial aid are being studied, including loan programs and work programs, but endowed fellowships and scholarships remain an important and attractive part of financial assistance.

Endowed fellowships and scholarships, of course, only make sense in terms of educational programs, and it was for this reason that separate consideration was never actually assigned. Instead, as the Commission developed educational proposals, they included endowed fellowships and scholarships. Therefore, all we need do here is give some idea of what is being proposed in the various areas and offer figures where estimates are available:

	<i>Annual Operating Cost</i>	<i>Required Endowment</i>
<i>Undergraduate Education</i>		
University Scholars Program	\$1,000,000	\$20,000,000
Benjamin Franklin Scholars	500,000	10,000,000
<i>Graduate Education</i>		
150 Graduate Fellowships	900,000	18,000,000
150 Endowed Graduate Fellowships	900,000	18,000,000
— Postdoctoral Fellowships	—	—
150 Benjamin Franklin Instructors	150,000	3,000,000
<i>Professional Schools: No estimates available</i>	—	—
<i>Continuing Education</i> 200 Scholarships	20,000	400,000
<i>Endowed Professorships: Resource funds for research and teaching assistants</i>	—	—
<i>Interinstitutional Cooperation</i>		
25 Graduate Fellowships	150,000	3,000,000
10 Undergraduate Scholarships	30,000	600,000
<i>Educational Living: Graduate Fellows and Residence Counselors</i>	—	—
<i>Computer Programs: 10 Endowed Fellows</i>	100,000	2,000,000

11. EDUCATIONAL LIVING PATTERNS

I. PRESENT STATUS. There is a growing recognition at Pennsylvania that the enterprise of learning can be conducted outside the classroom and libraries in ways which support and supplement classroom experience. Many faculty members at the University would like to be more actively involved with the students and to contribute more effectively to the intellectual life of the institution. The students, for their part, seek what they consider the prerogatives of a private University: instruction in small groups, informal as well as formal contact with the faculty, and access to effective advising by the faculty.

During the recently concluded building campaign, the University committed itself to a housing complex which now consists of five residences in the Superblock area, four Graduate towers, the Stouffer Triangle, Hill Hall, and the unfortunately decaying Quadrangle. At present the University has two successful residential colleges, Van Pelt College House and Stouffer House, which not only answer some of the needs described above but also serve as useful models for a wider system. Four living/learning projects flourish in the Superblock, and in Hill House there is a proposal to turn such a project into a two-year residential college.

II. PROPOSED PROGRAMS. It is the opinion of the Commission that the University should make increased use of its residences for educational purposes as part of its program to improve the quality of undergraduate education and as an instrument to assist faculty and students to achieve their goal of an improved environment for living and learning. It is also our opinion that the University needs a liveable union in which all segments of the University may interact. Our proposals are therefore in three parts: a College System, the Quadrangle, and Houston Hall.

A. *College System.* The basic requirements of a university's residences are that they offer the opportunity for reading, for privacy, and for counsel; for study, for sleep and for conversation; for meeting students and faculty and for living with and understanding a wide variety of people. Intellectual curiosity should find a home here. There should be a high regard for knowledge, and an easy social ambience that makes the difficult passage from youth to maturity less abrasive.

In existing residential structures there is room for the development of a uniquely Pennsylvania-style college system consisting of a series of residential units, each perhaps having a certain field of academic interest as a theme (e.g. a Pre-Health Professions House, a Foreign Language and Culture House, a Masters College, etc.). Within each college, resident fellows and affiliated nonresident faculty could conduct seminars and small discussion groups in informal surroundings and provide academic counseling. Such activity would help to orient new students to the University's opportunities, bring them quickly into close intellectual contact with faculty members, and increase their motivation to learn. The system would aim at the integration of the undergraduate's residential experience with his or her academic career, blending less formal intellectual and social activities with the more formal classroom studies for a richer college experience.

The immediate goal would be the development of four new colleges along with support for the two already initiated (Van Pelt and Stouffer) with the hope that such a program would become available to about 900 students (7.7% of the total undergraduate enrollment or roughly 20% of the undergraduate student body living in University housing). The size of the colleges would range from 100 to 150 students with a varying ratio of faculty and graduate fellows to undergraduates. At present in both Van Pelt and Stouffer the ratio is 1:13. The four new colleges would be located in a renovated Quadrangle, with space remaining for non-college residential life. The Commission recommends:

78. That the University seek endowment for a total of six colleges, four of them to be located in the Quadrangle and organized around educational themes.

Staff for the Colleges. Staff should be recruited from among the best faculty and graduate students at Pennsylvania. The Master of each college should be a distinguished member of the University. He should be responsible for the selection of the staff and should periodically evaluate their performance. Staff should be selected for their ability to sustain personal relationships with undergraduates, to counsel them, and participate in collegiate activities. All members of the staff should be frequently about the college. They should have demonstrated their ability and desire to foster educational programs in the colleges. Graduate fellows should be at least in the second year of graduate work, and each should be competent to offer a tutorial in one or more academic fields.

We should provide for each undergraduate to have the opportunity to see at least one member of the staff on a regular basis as a neighbor. Although the ratio of the number of faculty and graduate fellows to the number of undergraduates in the college is best set by considering the spatial arrangements of the college, a ratio of one faculty member to two graduate students might be considered.

The Academic Component. At present the Office of the Vice Provost for Undergraduate Studies is working on the best way to offer academic instruction in the form of tutorials in the residential colleges. The undergraduate schools and colleges should be prepared to offer credit for these tutorials.

Academic advising for students living in residential colleges should become the responsibility of the college staff.

One caveat: the academic activities of the collegiate system while enhancing the learning experience at Penn should not divert attention from the necessary improvements in undergraduate education as outlined in the section on *Undergraduate Education*.

Locating the Colleges. The buildings which now comprise the University's residence system offer a challenge to the college planner. Low Rise South (Van Pelt) and the Stouffer Triangle have been altered to accommodate collegiate programs. The Office of Planning and Design has given us plans for the placement of four colleges in a renovated University Quadrangle. We ultimately envisage another college in one of the two remaining low-rise buildings in the Superblock.

Physical Requirements of the Residential Colleges. There is no need for the construction of new residence halls to achieve a collegiate system at Pennsylvania or to meet the foreseeable needs of the future student community. We believe that existing university residences can be converted to colleges at reasonable costs. Each college would be self-contained except for dining facilities and would include:

- family suites for resident faculty (living room, kitchen, study, bedrooms)
- graduate fellows' suites (living room and bedroom)
- suite for non-resident faculty use
- library-study area containing heavily used texts
- common rooms
- suite for visiting faculty, their rents to be paid by the department that sponsors them.
- space for special activities such as music practice room, potters' and sculptors' studio, darkroom, etc.
- provision for common dining

B. *Renovation of the Quadrangle.* Among the options prepared by the Office of Planning and Design is a renovation plan which could accomplish all of the deferred maintenance needs of the Quadrangle and make it an attractive place to live and study. Construction cost is estimated to be \$6.1 million. To this sum must be added a project cost (architect's and engineers' fees and surveys) which the Planning Office estimates to be one-third of the above amount. The total cost would be then approximately \$8.2 million.

We are also concerned with the restoration of the Quad's exterior and the landscaping of the surrounding area. Brickwork needs repointing, leaded windows need to be replaced; the gargoyles need cleaning, and the grounds are in a near derelict condition. We believe funds should be provided for adequate landscaping and for landscape maintenance, and we consider these items to be essential and inseparable part of any restoration program.

The existing activity space in McClelland Hall and in the Quad Grille also needs to be redesigned and remodeled. And finally, some sections of the Quad are more desirable for student housing than others. The heavy traffic on Spruce Street makes many of the rooms facing the street unfit for sleep and study. The offices of the Quadrangle, Undergraduate Residence and Security should be moved to the areas least fit for student living quarters. The Commission recommends:

79. *That the University renovate the Quadrangle as proposed here.*

A careful coordinating effort will be needed to bring this project to fruition and to coordinate the renovation project with the residential college planning that affects it. The Commission therefore recommends:

80. *That early in the planning stage a project coordinator for the college system be appointed by the University Administration to direct development of the project and gain the cooperation of all segments of the University involved in it.*

C. *Houston Hall.* A college union is a community center and an educational enterprise for a college or university. More than just a building, it is also a concept for enriching college life. The major elements of a college union are its programs, services, and facilities.

The development and operation of Houston Hall as a college union has been limited by the way in which it has been funded since 1956. Its current expense needs are funded primarily by the University's general unrestricted income, in competition with all the other Student Affairs areas and although Houston Hall has an income-producing potential not possessed by other Student Affairs areas, capital improvements are necessary to realize this potential.

Studies show that few colleges and universities improve and operate their college unions with general income funds alone. Many use a budget package composed of funds from a fee, income generated by services, and general income, with the largest portions of the union budget coming from the fee plus service-generated income. Such techniques should come under consideration here. In any case, to bring Houston Hall back into full service for the University community the Commission recommends:

81. *That the University obtain funding for renovation and adequate operation of Houston Hall.*

III. **ANTICIPATED COSTS.** We have no reason to believe that the University possesses the resources in current operating funds to establish a collegiate system of six colleges, to maintain such a system, and to renovate Houston Hall. The cost of alterations and operating expenses of the colleges must come from gifts and endowment. Those for Houston Hall may be sought from a variety of sources. A preliminary estimate of costs relating to residential colleges would include:

Further alterations to Van Pelt College House	\$ 50,000 (approx.)
Further alterations to Stouffer Triangle	(unavailable)
Maintenance of 6 colleges—\$50,000 each	\$300,000
Loss in rentals (faculty and staff suites)	\$ 30,000
Administrator	\$ 5,000
Educational activities	\$ 15,000

Residential colleges would account for about a third of the space in the Quadrangle, the total restoration and conversion of which would cost about \$11.5 million. For Houston Hall, the estimated cost would be \$1.5 million.

Charges for college residence could be on a differential basis with the surcharge not to exceed \$50 a year per student, but financial aid for students living in colleges would have to be adjusted if such a policy were adopted. It should be noted, however, that rentals in the Quadrangle, which are presently lower than in newer structures, could be brought to a normal level after improvements were made there. Since we cannot predict the demand for spaces in the colleges, we propose that physical renovations be planned in such a way that the residential units can without any new costs be transferred to non-collegiate spaces and the faculty apartments rented to faculty who wish to live on campus.

IV. **OTHER CONSIDERATIONS.** A collegiate system is not the only way to meet the residential, social and intellectual needs of the community. Residential projects of varying sizes flourish on the Penn campus. This academic year there are five, and the Office of the Director of Residential Programs under the Vice Provost for Undergraduate Studies collects many proposals each year for short-term residence projects. There is no lack of creativity, only a shortage of funds.

Further, not all students wish to be involved in a living/learning environment, no matter how small or loosely structured. Some thrive best alone in the midst of the serenity that they themselves create. These students ought to be able to find their privacy within University housing and yet have access to activity space comparable to that given students in the residential colleges and projects.

And finally, the University continues to serve a significant number of commuters, evening and summer students whose sense of participation in a University community is minimal at present. A further study on this subject is in progress with the University Council's Joint Subcommittee on University Life. Houston Hall could be invaluable in meeting this problem.

12. LIBRARY

I. **PRESENT STATUS.** The Libraries of the University of Pennsylvania have, for many years, merited and received national and even international recognition for the quality and strength of their collections in a variety of fields. In some, such as the Medieval field, excellence was achieved some decades ago and has been maintained; in others, such as ancient history, classical studies, English, Germanic and Romance languages, law, mathematics, and others, we compare favorably with other major University libraries.

In the past several years, however, it has been increasingly clear that Pennsylvania's libraries cannot hope to continue to serve the University as they should, let alone maintain a position of national significance with a more or less static budget level. In the decade 1960-61 to 1971-72 the total of expenditures for books, periodicals and binding at Pennsylvania has dropped our library from 12th to 28th place among university libraries. Even if we assume that several of the 16 places lost were lost to new institutions who have spent heavily to catch up, we have nevertheless declined relative to a significant number of other older and well-established schools. This is a trend which, if not quickly reversed, will prove disastrous to our aspirations.

Equally disturbing is the small size of the total annual income from special endowed library funds available for the purchase of books and journals: slightly over \$44,000 out of a total book expenditure of over \$1,000,000. The figure compares most unfavorably with Virginia's \$100,000 or Cornell's \$194,000 to say nothing of the \$220,000 to \$566,000 represented by Stanford, Princeton, Columbia and Harvard.

We have also been very slow to move in the area of technological innovations for our library system. Five years ago nothing was spent in this area. Last year a modest \$50,000 was budgeted for development and maintenance of computer-based systems in the library. Initial progress has been made; much can be done with additional support.

If we now face up to the dangers which a continuation of the present level of financial support of our library entails, and recognize the necessity of substantial and prompt relief, there is hope that the libraries of the University can be preserved as high quality and indispensable tools for academic instruction, and for advanced and creative scholarship and research.

II PROPOSED PROGRAM. In view of the current situation, the Commission recommends:

82. *That a Library Technology Fund be established with a capital sum of \$3,500,000, yielding about \$175,000 a year.* Income from this fund would be used for new technology of an innovative character with the explicit aim, through the application of modern technology, to transform the Library system of the University of Pennsylvania into one of the great "working libraries" of the world. The term "working library" in this context stresses the prompt availability of information desired by students, both graduate and undergraduate, as well as the ready accessibility of all research materials needed by the working scholar and scientist—regardless of whether it be located at Pennsylvania or elsewhere. It also emphasizes close integration of the development of our library holdings with the interests not only of the productive faculty but also of the intellectually curious in our student body; and it insists on the presence of library staff members genuinely competent in special disciplines. The library system of the University of Pennsylvania could take a leading role in the development of a "working library" in this sense of the word, contrary to the archival character of many other libraries; and it could do so by making use of every technical device for rapid bibliographical retrieval at our disposal now or in the near future. The Commission recommends:

83. *That a Selective Book Acquisition Fund be established with a capital sum of \$14,500,000 yielding about \$725,000 a year for the development of collections.* This recommendation, of a more traditional character has the explicit goal of making the library of the University of Pennsylvania by the end of the decade one of the first ten libraries in the nation with regard to the richness of its collections—a goal to be achieved not through broad quantitative coverage but through judicious qualitative selectivity concerning areas to be built up and, within these areas, concerning the specialties which are to be enriched in particular. In setting priorities of this kind, the sustained quality of our libraries' holdings in a given field and the proven excellence of the faculty and students interested in that field will be the first among a number of criteria to be taken into consideration. The Commission therefore recommends:

84. *That a study be made of how to attain a satisfactory Student Study and Reserve Book Center on the campus*.*

85. *That studies be made of the feasibility of combining separate departmental and school libraries in related areas.* One possibility that has received some support is the combination of the Biology Library with the Medical School Library. On the other hand, the suggestion to develop a combined Engineering and Physical Sciences Library met with strong objections. Planning for mergers will require further detailed programming as a result of discussion among the interested parties, under the chairmanship of the Director of Libraries.

III. ANTICIPATED COSTS.

	Annual Operating Cost	Required Endowment
Library Technology Fund	\$175,000	\$ 3,500,000
Selected Book Acquisition Fund	725,000	14,500,000

* One proposal made in this connection is to renovate the Furness Building for this purpose, because of its central location; however, consideration must be given to competing plans for the future use of this particular facility.

IV. OTHER CONSIDERATIONS. Maintenance of an excellent library system is a fundamental requirement for all programs of excellence within the University. The library is a central element in any concept of *One University*, since it must serve the whole community. These library recommendations should be reviewed in the context of recommendations on audio-visual technology, undergraduate education, and graduate education.

The foregoing recommendations, if adopted, will go far to enable our libraries to retain their place, in terms of collections, among the first in the nation, and within the present decade to respond more effectively to the needs of the campus. The price tag is high, but adequate budgetary support for its libraries is an essential part of the University's program for development.

13. AUDIO-VISUAL RESOURCES

I. PRESENT STATUS. How can we develop our present, scattered audio-visual facilities into an *Audio-Visual Resources Center* that will contribute significantly to the educational experience of students and facilitate the teaching of faculty? The present facilities are:

Annenberg Media Labs (research)	40,000
Fine Arts Slide Collection	40,000
Instructional Resources Lab	22,500
Instructional Television	120,000
Language Laboratory	45,000
Medical School Library	15,000
Music Listening Library	20,000
Visual Communications (TV)	22,500
	<u>\$325,000</u>

These units are uncoordinated; some facilities are overloaded in their use, some are not as accessible as they should be, some are in disrepair, and some are new and in need of development.

There is every indication that education could take advantage of new technology and add to the book, the blackboard, the lecture and the seminar a variety of new teaching aids such as audio-tape cassettes, audio-visual cassettes, closed-circuit TV for close-up views of material or for transmission over distance, and computer-assisted instructional devices. Orderly development of an Audio-Visual Resources Center at the University could help to solve a number of our current problems and put us in the forefront of an important educational development.

II. PROPOSED PROGRAM. The essence of the new program is to centralize audio-visual services and to coordinate and assist present programs and plan future developments. The Commission recommends:

86. *That an Audio-Visual Resources Center be established, to be responsible to the Provost.* The Center would consist of a Director, Staff and Faculty Advisory Committee. From the outset it would provide a catalogue of material, equipment, and resource personnel presently available on campus. Using present resources and some modest reallocation funds, it would also begin pilot experiments and help to foster some of those already underway so that it could develop grant proposals to Governmental Agencies and Private Foundations. As outside funds become available, the Center should add technical personnel and budget for equipment and supplies. Funds would also be needed for development of a physical Center.

The Center would offer technical and material help to Faculty members wishing to use audio-visual material in teaching or wishing to develop material of their own. The expense for these activities should be shared on at least a 50:50 basis by the Center and the department or school concerned. The main feature of the Audio-Visual Resource Center would be its integration into ongoing educational pro-

grams, and how much of an integral part of academic and educational program it becomes will be a major measure of its success.

III. ANTICIPATED COSTS. Growth of the audio-visual program and increases in costs should be gradual, depending upon the outcome of periodic evaluations and the success of external fund-raising. A budget for the first year is:

Salaries (Director and staff)	\$35,000
Expenses	9,000
Equipment	3,000
	<u>\$47,000</u>

For 1973-74, add \$20,000 for equipment and expenses for a total of \$67,000. This would allow the new program to command an additional \$20,000 in matching money from Schools and Departments wishing to use audio-visual systems.

For 1974-75, staff and operating expenses should rise if grant requests and fund-raising are successful. One proposal is for an annual operating budget of \$400,000 once the program is underway:

Salaries (17 positions)	\$220,000
Equipment	30,000
Expenses	100,000
Grants to faculty for studies	50,000

This same proposal calls for \$500,000 for renovation of Logan Hall.

IV. OTHER CONSIDERATIONS. The audio-visual program would interact with all educational programs in both the arts and sciences and the professional schools. Past experience tells us that audio-visual systems have been most successful in the Medical School where the Library has available many basic materials on audio and visual tape cassettes, in the Dental School where the TV camera can bring a closer view of the mouth than direct viewing, and in Engineering where a TV classroom is in use both on the campus and at Valley Forge. We should build on these programs, utilizing both faculty experience and technical advances.

The audio-visual program should, over a five- to seven-year period, be integrated with technical programs of information storage and retrieval in our Libraries. In fact, somewhere in this period it may be that the Audio-Visual Resources Center should be housed in Van Pelt Library or next to it. Already in the Medical Library the student can turn from a book to an audio-visual tape cassette, for example. Eventually a successful audio-visual system could have carrells or other outlets for student use in dormitories and residential colleges, so they could become a real part of living and learning systems, allowing the student to work individually at his/her own pace and own time.

Further planning is obviously needed and should be carried out by the Director and the Advisory Committee. Two kinds of academic evaluation will be needed: 1) of the acceptance and use of audio-visual systems by faculty and students and 2) of their educational value in terms of achievement of educational goals. We cannot simply take for granted that audio-visual systems will fulfill their promise; if they do succeed, we should be constantly improving their performance by periodic evaluation. This is why the proposed program is planned to be incremental and to grow as its success grows in gaining faculty cooperation.

14. CALENDAR

Calendar reforms have frequently been discussed in the University. In the brief attention the Commission could give this question, two separate issues were identified. One is the problem of synchronizing calendars across Schools. The other is the question of better use of University facilities over the twelve months of the year. Both issues deserve further study.

SYNCHRONIZED CALENDAR. For *One University*, we obviously need one calendar. The following proposal, made over

a year ago in an effort to synchronize the calendars of the Medical School and the Graduate School of Arts and Sciences, is a good example of the kind of solution that is needed here:

- (1) Adopt the basic framework of a 16-week trimester system as follows:
 - (a) *First trimester* may start 16 weeks prior to the beginning of winter vacation, which is the anchor point.
 - (b) *Winter vacation* should start before Christmas and last two weeks.
 - (c) *Second trimester* starts immediately after winter vacation.
 - (d) *A one-week vacation* follows the second trimester.
 - (e) *Third trimester* starts immediately after that vacation.
 - (f) *A one-week vacation* follows third trimester.
- (2) *Each School can accommodate to this 16-week framework* as follows:
 - (a) *Its trimester can begin later or end sooner* than the standard as long as it stay within the 16-week block. Mini-courses should fit in a 8-week block.
 - (b) *Vacations* can be provided within the 16-week block.
 - (c) *Examinations* must be completed within the 16-week block.
 - (d) *Summer School Sessions* and *Summer Vacation* can occupy any portion of the third trimester that a School desires.

With the possibility of using this proposal as a model for the whole University, the Commission recommends:

87. *That the Council of Academic Deans review the issues involved and come to a decision about a synchronized calendar for the whole University before the end of this academic year.*

FULLER USE OF THE CALENDAR YEAR. To investigate this possibility, the Commission recommends:

88. *That discussion begin in the Academic Planning Committee of fuller use of the calendar year, and the issues involved be identified for the President and Provost.*

15. VISUAL ENVIRONMENT

1. PRESENT STATUS. There can be no doubt that the educational process depends not only upon the quality of formal instruction but also on the environment in which it takes place. Indeed, in the planning of that environment an institution should express the same values it upholds in its classrooms. The campus has been improved in recent years with the shift of traffic patterns and the creation of open space among buildings. Unfortunately the process of development has not yet been completed. At the same time older parts of the campus have deteriorated. For a relatively small investment compared to the total *One University* program being discussed, dramatic improvement in the visual environment is possible. The impact on the spirit of the University would be of considerable importance to the entire development program.

The University must also consider the fact that the impression formed by any visitor to an academic center depends not only on its personnel and physical plant but upon the atmosphere of its surrounding commercial area. Because it is favored neither by geography nor by a large body of permanent residents, the University is virtually unsupported by the humanizing effects that a proper commercial environment can provide. Its plight is made worse by the rents it must charge in the commercial spaces it has constructed, and by the leveling of adjacent areas where marginal, low-rise, student-oriented and even student-owned enterprises might have flourished or failed depending on their responsiveness to student needs. In spite of the obvious difficulties in the way of such organic development, there is no reason to conclude that the campus area and its surroundings need continue their slide toward another edition of sanitized, instant America.

II. PROPOSED PROGRAM. To encourage the development of a physical environment of which the members of the University and the alumni can be proud, the Commission recommends:

87. *That the President appoint a Council on Physical Environment including members of the School of Fine Arts and the Department of Art History to advise him on the creation and maintenance of a physical environment at the University which will reflect our own expertise and which will provide a lift to the spirit of campus life.* Among the immediate tasks of the Council should be:

a) To see that plans of the Office of Planning and Design are augmented to form a *master landscape plan*. It should include not only existing plans for College Hall Quadrangle, but plans for unimproved areas, Superblock, parts of Locust Walk, and plans for renovation of deteriorating established areas (i.e., Smith Walk and the areas near Houston Hall, Logan Hall and College Hall).

b) To make the campus more recognizably *One University* through a bright, uniform design for building identification, outdoor directories, lighting, kiosks, benches and other campus street furniture.

c) To provide a set of internal priorities and cost estimates for implementing these plans.

The University not only has a considerable interest in the visual arts, but contains a rich variety of exhibition space (in the Kress Gallery of the University Museum, the foyer of the Annenberg Theatre, Houston Hall, and certain areas of the High Rises, among others). Unfortunately the available space has not been utilized effectively due to a lack of coordination and planning. To remedy this the Commission recommends:

90. *That the President appoint a Council on the Visual Arts to coordinate, program and promote the University's knowledge of and interest in the visual arts.* The Council should consider:

a) The effective use of under-used existing exhibition space already available on the campus.

b) The programming and publicizing of exhibitions and other events relating to the visual arts at the University in coordination with the program of a council for the performing arts recommended below.

c) The acquisition by gift of outdoor sculpture from alumni and other sources should be actively encouraged as perhaps they will be indirectly encouraged by those works to be acquired by purchase under the requirement of the Philadelphia Redevelopment Authority. Such gifts have been offered in the past but not acted upon for lack of policy. It is likely that an extensive collection of outdoor sculpture would in time be formed. Planning for such acquisitions should be done in consultation with the Council on Physical Environment.

16. THE CREATIVE AND PERFORMING ARTS

I. PRESENT STATUS. The University presently has a mixed and diversified educational policy on teaching and research in creative activities. Their educational importance at the undergraduate and graduate level requires more complete and careful evaluation. In general it will be recognized that these activities within or without the curriculum enrich student life greatly. Similar enrichment arises out of the performing arts, which in addition affect the role of the University in the community and contribute to the community's cultural life.

The University at present has some excellent facilities for the performing arts, but we are not yet using them to full advantage. The Annenberg complex has four theaters: the Prince Theater (200 seats), the Zellerbach Theater (900 seats), the Studio Theater (100 seats), and the Annenberg Auditorium (382 seats). In addition, we have available the Museum Auditorium (830 seats), Irvine Auditorium (2000 seats), and Houston Hall (350 seats). In the Annenberg complex, the acoustics are excellent for voice but not appro-

priate for musical events. The acoustics in the Museum Auditorium are barely passable for music. Irvine has a bad echo, but this situation could be improved by modest modification. Zellerbach could be made acoustically suitable for music only by electronic means.

II. PROPOSED PROGRAM. In order to utilize our facilities more fully, it is necessary (1) to recognize the enormous contributions to intellectual life style on campus that a vibrant and outstanding program in the arts could bring, (2) to see the needs that are tied to academic programs and the needs that are extracurricular, and (3) to set up mechanisms to achieve both academic and extracurricular goals. To this end, the Commission recommends:

91. *That the President set up a Council on Arts in the University which would have cognizance over the creative and performing arts and function as an advisory committee in both extracurricular and academic activities.* This Council should initiate *ad hoc* studies of many or all Arts programs within the University.

92. *That the University hire an Artistic Director responsible to the Council who would bring performances to the campus, who would have complete cooperation in the use of our facilities, and who would coordinate with and complement departmental plans.*

93. *That administrative steps be taken to implement the recommendations of the Dramatic Arts Curriculum Committee to institute a major in theater.*

III. ANTICIPATED COSTS. We have not yet worked up actual dollar values, but at the outset, the necessary funding would include the salary of the Artistic Director and the salaries of two or three additional staff members who would be involved in the major in theater. After a couple of years, the Artistic Director could make the programs of the extracurricular performances cover their own costs. But some initial operating support from the University would be necessary.

Funds would also be needed for redoing the stage in the Museum Auditorium, correcting the echo in Irvine, and improving Zellerbach acoustics electronically.

IV. OTHER CONSIDERATIONS. The programs proposed here could contribute to undergraduate education and educational living patterns through a program of artists-in-residence in college houses, or even a college for performing and creative arts. Among our endowed professorships we might consider chairs in the performing and creative arts.

Much detail needs to be worked out by the proposed Council on Arts, especially in developing specific proposals for extracurricular programs and advising on academic programs. The Council on Arts should assess the success of its programs annually, from both the fiscal and performance point of view. Educational programs such as the major in theater should, of course, be evaluated along with other educational programs. So also would the effectiveness of any artist-in-residence or similar programs that might be set up.

17. FUTURE PLANNING

During the latter months of the work of the Development Commission, we began to receive special proposals from schools, departments, interdisciplinary groups, and individual faculty members. Some were developed in great detail, some were already prepared to go outside and seek funding, some simply wanted to be integrated into the Commission's development plans. For obvious reasons, we could not review or accommodate most of these proposals in any kind of satisfactory way although we did incorporate some of their ideas wherever possible. We do recognize the great significance of these proposals, however, and not only are we anxious to see them receive the attention they deserve, but we would like to

encourage more such proposals from the University community.

For the time being we can only mention those reasonably well developed proposals that our overloaded records system shows that we have received so far. These include proposals from the Laboratory for Research in the Structure of Matter, Physics, Biology, various departments and activities in Engineering, the Faculty Grants and Awards Subcommittee, the Populations Study Center, and the Film Library. We have proposals concerning the study of conflict, a residential college in Hill Hall, the performing arts, human biology, biochemistry, the problems of the premedical student, the music department's activities, the campus environment, and capital facilities. For the prompt and effective handling of all such proposals, the Commission recommends:

94. *That the Provost immediately designate an administrative mechanism for handling individual proposals, calling upon appropriate individual faculty and faculty committees (existing or proposed) for advice and evaluation. This mechanism must operate in the context of continual university-wide planning under the leadership of the Associate Provost for Planning.* The Commission believes that the University is entering a new and active period of planning and that we must have effective mechanisms for decision-making and for integration of specific proposals into this overall University goals.

18. SUMMARY

The major thrust of this report is the theme of *One University*. It is a theme which offers a blueprint of what can be accomplished in our educational and scholarly efforts when there is cooperation between academic and non-academic units and when the different schools work together under strong leadership of the President and the Provost. In this spirit, the report makes some key recommendations for better use of existing resources and for programs it would be fruitful to develop. In addition, we propose specific mechanisms for better long-range planning both at the level of the schools and University wide. Finally, in some areas no detailed recommendations could be made, and in these cases further study by task forces was recommended.

The best way to summarize the Commission's recommendations is to group them together under the major topics. In this process, it becomes obvious that there are four classes of recommendations: (1) those requiring administrative action primarily, (2) those needing further study, (3) those concerned mainly with developing academic programs, and (4) those requiring new funding. Quite clearly, some recommendations fall into more than one category, and we show this in Table 10, which gives a rough idea of the distribution of our recommendations across the four categories.

REALLOCATION

Seven administrative recommendations (1,2,3,4,9,10,11) call for the elimination of deficits within three years; require that schools meet the costs of their clinical facilities; fix indirect costs and overhead at a constant percentage of direct costs; and control indirect costs.

Three recommendations (6,7,8) are matters of administrative policy, giving the schools some control in matters of tuition, admissions, and financial aid.

Three recommendations (12,13,14) propose generating an Academic Development Fund of at least \$1.5 million per year from these fiscal policies. They also propose ways to use the money for academic planning, for seeding new ideas, and as venture capital for starting new programs or strengthening old ones.

One recommendation (5) calls for the immediate study of the academic and fiscal position of Graduate Hospital.

Four recommendations (15,16,17,18) concern the present and future status of the Department of Intercollegiate Athletics.

One recommendation (19) calls for immediate fiscal support for a black presence at Pennsylvania.

One recommendation (20) calls for more financial aid for transfer students.

Five administration and policy recommendations (21,22,23,24, 25) deal with the age and mobility of our faculty and propose changes in retirement age and options and changes in tenure procedures that will give us a desirable age distribution.

UNDERGRADUATE EDUCATION

Three programmatic recommendations (27,29,31) propose ways to strengthen and implement educational efforts: the University Scholars Program, good faculty contact for Freshmen and Sophomores through small classes, and endowed chairs to develop excellence in teaching.

Two recommendations (26,28) request further faculty study of other educational options, including a human biology program, an Honors College, research option, and credit for field work, service, and research.

One recommendation (30) calls for administrative review of teaching loads and departmental teaching responsibilities.

GRADUATE EDUCATION

Two recommendations (34,35) anticipate programmatic support through endowed fellowships and endowed professorships.

Two recommendations (32,33) propose identification of the core disciplines and disciplines that can reach national pre-eminence.

PROFESSIONAL SCHOOLS

One recommendation (36) calls for school planning and evaluation committees.

Two recommendations (39,40) call for task forces to study a possible Health Science Education and Preventive Medicine School and a possible program in Public Policy.

One recommendation (37) requests Trustee monitoring of hospital finances.

One recommendation (38) calls for Trustee support for facilities for Veterinary Medicine.

BLACK PRESENCE

Three recommendations (41,42,43) are concerned with funding and recruiting new black faculty in all areas of the University, including Afro-American studies.

One recommendation (44) requests better staffing, more funds, and more research in the area of black admissions.

Four recommendations (45,46,47,48) are curricular and include formation of an Institute of Afro-American Studies, improved advising and career counseling, and strengthening of the Morgan State-University of Pennsylvania Cooperative Project.

One administrative recommendation (49) proposes immediate funding of these efforts by having each cost unit devote a fixed proportion of its direct costs for these programs.

INTRAUNIVERSITY COOPERATION

Three recommendations (50,51,52) deal with policies governing Institutes and Centers.

One recommendation (53) proposes a new program in improved use of computers.

CONTINUING EDUCATION

Seven recommendations (54,55,56,57,58,59,60) are made to facilitate continuing education by making both admission and leaving more flexible, by providing more sensitive and effective administration of programs, and offering financial aid and remedial education as needed.

Two recommendations (61,62) propose raising money for educational innovations and for scholarships.

One recommendation (63) proposes further study of Certificate and Diploma in Arts programs.

INTERINSTITUTIONAL COOPERATION

Eight recommendations (64,65,66,67,68,69,70,71) are concerned with foreign exchange at both professional and student levels.

One recommendation (74) proposes that we take the lead in providing a Philadelphia Semester, focused on colonial history and civilization and the American Revolution as a model of change in social institutions.

Three recommendations (69,72,73) are administrative: establishment of an Office of International Affairs, an Office for Cooperative Educational Exchange, and a cooperative effort in combined operations with other Philadelphia institutions (e.g. security, purchasing, housing, etc.)

ENDOWED PROFESSORSHIPS

Two recommendations (75,76) are concerned with the varieties of purposes, ranks, and terms that endowed chairs might save with faculty already here and from the outside.

One recommendation (77) proposes establishing "named endowment funds" that could supply basic minimum resources needed by a professor for either teaching or research or both.

EDUCATIONAL LIVING PATTERNS

One recommendation (78) proposes the establishment of six colleges, four of them in the Quadrangle. Two recommendations (79,80) relate to renovation of the Quadrangle and coordination of that work with residential education.

One recommendation (81) asks for funding of renovation and adequate operation of Houston Hall.

LIBRARY

Two recommendations (82,83) involve funding for programs in library technology and selective book acquisition.

Two recommendations (84,85) are concerned with combining or reorganizing existing facilities.

AUDIO-VISUAL RESOURCES

One recommendation (86) is to develop a physical center that will be able to provide techniques that will aid learning and facilitate teaching.

CALENDAR

Two recommendations (87,88) call for prompt study of a synchronized University calendar and fuller use of the calendar year.

VISUAL ENVIRONMENT

Two recommendations (89,90) propose Councils on physical environment and visual arts.

CREATIVE AND PERFORMING ARTS

Two recommendations (91,92) propose administrative measures to strengthen performing arts on the campus.

One recommendation (93) calls for an undergraduate major in theater.

FUTURE PLANNING

One recommendation (94) proposes a mechanism for reviewing new proposals for educational and scholarly programs.

19. PRIORITIES

If the conclusions to be drawn from our work team recommendations are to have any practical meaning, we must have a way of assigning priorities to them. This is not an easy task and the difficulty is compounded by the fact that some of our recommendations are for academic programs and some are administrative suggestions; some require new funding, some can use existing money; some are recommendations for a single action right away and others are for developments that will take place gradually over a number of years. Furthermore, in addition to their basis in academic values, priorities may be influenced by how much programs cost, and to some extent, by the availability of funds. Finally, priorities vary with the individual and with the academic group.

The Commission discussed priorities repeatedly. In global terms, our consensus is that the highest priority goes to programs contributing to the concept of *One University*. These would include the University Scholars Program and other cooperative programs across schools such as the College of Thematic Studies and the Freshman Seminars, engineering-medical interactions, a public policy program, etc. To accomplish such cooperative programs effectively, we must do them in such a way as to strengthen departmental and school structure.

Within the *One University* concept we recognize that the liberal arts and sciences, are the core of the University. At the undergraduate level, programs would include efforts to improve the quality of students through better educational programs and better-funded admissions and scholarship programs, providing more meaningful faculty contact with freshmen and sophomores, developing residential education further and utilizing some endowed chairs for teaching. At the graduate level, it would mean selective use of fellowships and professorships to develop national preeminence in twelve to fifteen departments and it would mean efforts to strengthen core disciplines.

Strong professional schools must be helped to maintain their positions and to advance. The weaker schools need help from the rest of the University in developing stronger programs. Specific priorities within the group of Professional Schools will depend upon the strength of the programs proposed by the respective Deans.

In keeping with our concept of *One University*, the Commission looked at the proposals concerning the black presence on the campus as a University-wide opportunity and responsibility and gave a very high priority to programs contributing to it. We attached great urgency to the problem of attaining a critical mass of excellent black faculty and

TABLE 10

Distribution of Recommendations
Numbers used a second time are underlined

	Programmatic	New Funding	Administrative	Further Study
Reallocation	12,14,19		1,2,3,4,5,6,7,8,9,10,11,12,13,14,16,17,18,20,21,22,23,24,25	5,15,25
Undergraduate Education	27,29,31	29,31	30	26,28
Graduate Education	32,33,34,35	34,35		
Professional Schools		38	36,37	39,40
Black Presence	43,44,45,47,48,56		41,42,29	
Intrauniversity Cooperation	53	53	50,51,52	
Continuing Education	59,60	61,62	54,55,56,57,58	63
Interinstitutional Cooperation	64,65,66,67,68,70,74	64,65,66,67,68	69,71,72,73	
Endowed Professorships	75,76,77	75,76,77		
Educational Living Patterns	78,79,81	78,79,81	80	
Library		82,83		84,85
Audio-Visual Resources	86	86		
Calendar				87,88
Visual Environment		89,90	89,90	
Creative and Performing Arts	93	92	91,92	
Further Planning			94	

administrators and we viewed it as a short-term financial problem that would naturally fund itself once it was underway. Our priority here was high enough that we recommended guaranteeing these programs immediate funding from internal sources rather than waiting for the development of external funding.

Priorities may be assigned in terms of programs designated for external fund-raising. One variety of such priorities naturally arose when the Commission work teams decided on the amount of money that should be raised for each program. On this basis, we would assign each program a percentage of the total funding and rank it on the basis of size. In addition, quite apart from the money involved, the Commission deliberately asked itself which programs should receive money first. It did this by asking 14 Commission members how they would distribute money across 15 programs as each quarter of the total funding was achieved.

Generally speaking, endowed professorships, scholarships, and fellowships and library turned up in the first five ranks, with graduate programs ranking highest and undergraduate and professional next, often in the middle five ranks along with educational living and intrauniversity cooperation. The smaller programs of audio-visual resources, continuing education, cultural activities, and campus environment tended to fall into the five lowest ranks.

There are many reasons to think of this exercise in priority-setting as a fragile process once we came down to specific programs, and this becomes apparent when one considers that a small, one-time investment in improving campus appearance could have a tremendously positive effect on campus morale and yet take away very little from other programs. The same can be said about other relatively small programs such as cultural activities, continuing education, and audio-visual resources which tend to fall in the bottom fifth of the priorities. Quite clearly, the process of priority-setting must go on as we develop programs more fully and set about the practical tasks of fund-raising.

20. CONCLUSIONS

1. In all that we have said about programs and plans in this report, one thing stands out most clearly: *success in University Development comes down to supporting good people and giving them the opportunity to achieve their highest academic goals.* This means bringing in the best students, standing behind the best faculty, and providing the best academic leadership in the administration. If these goals are achieved, then we will have both good teaching and good research in the same individuals and the distinctions among undergraduate, graduate, and professional education will be minimized.

2. In this state of affairs, the goal of *One University* can really be achieved. Pennsylvania has a special combination of professional schools and liberal arts and sciences programs on one campus. The opportunity for cooperation across different disciplines and different academic purposes is unparalleled, and we have the mechanism of a strong central University administration to pull it together. The success of *One University*, however, will depend on maintaining strong departmental and strong school structure in the University.

3. Planning and evaluation must become part of our regular academic existence if we are to maintain our strengths and build a new future.

4. Fiscal Responsibility in all operating units, academic and non-academic, is an essential first step in all planning for the future, and fortunately, we have already begun to take this first step.

5. By building on our traditional strengths and developing the theme of *One University*, Pennsylvania ought to be able to present a new face to the world and to itself as well, a new confidence and pride in what we uniquely are.

6. Finally, the leadership of the University, the *President and the Provost are the decision-makers.* They depend upon both the advice and criticism of committees, Deans, faculty members, and students, but they must make the crucial decisions in the end.

This report is submitted with the formal approval of eighteen of its members, two of whom have submitted minority statements below:

Robert H. Dyson, Jr., *Chairman; Professor of Anthropology and Curator of the Near East Section, University Museum*
 Eliot Stellar, *Co-Chairman; Professor of Physiological Psychology and Director of the Institute of Neurological Sciences*
 Carol Weiss Dethy, *Doctoral Candidate, Graduate School of Education*
 Renee C. Fox, *Chairman of the Department of Sociology and Professor of Sociology in Psychiatry and Medicine*
 Britton Harris, *Chairman of the Department of City Planning and 1907 Foundation Professor of Transportation*
 Arthur E. Humphrey, *Dean of the College of Engineering and Applied Sciences*
 William Keller, *Senior in the College of Arts and Sciences*
 Julius Margolis, *Director of the Fels Center of Government*
 Robert W. Nason, *Assistant Professor of Marketing*
 H. Michael Neiditch, *Lecturer in History and Administrative Fellow of Van Pelt House*
 Ruth Ann Price, *Junior in the College for Women*
 Burton S. Rosner, *Professor and Chairman of the Department of Psychology*
 Barbara Ruch, *Associate Professor of Japanese and Director of the Institute of Medieval Japanese Studies*
 J. Robert Schrieffer, *Mary Amanda Wood Professor of Physics*
 Otto Springer, *University Professor of German*
 John Wideman, *Associate Professor of English and Director of the Afro-American Studies Program*
 Bernard Wolfman, *Dean of the Law School*
 Michael Zuckerman, *Associate Professor of History*

Five *ex-officio* members of the Commission have approved the report in principle, one with a minority statement below.

Jean Crockett, *Chairman of the Senate and Professor of Finance*
 Henry M. Chance II, *Chairman of the Trustees' Committee on Long Range Planning*
 John W. Eckman, *Chairman of the Trustees' Committee on Development*
 Carl Kaysen, *Chairman of the Trustees' Committee on Educational Policy*
 Lawrence R. Klein, *Chairman of the Academic Planning Committee and Benjamin Franklin Professor of Economics*

Two members have neither approved nor submitted a minority statement due to the pressure of other duties which limited their participation:

Philip Rieff, *Benjamin Franklin Professor of Sociology*
 Vincent H. Whitney, *ex-officio; Chairman of the Educational Policy Committee of Council; Director of Population Studies and Professor of Sociology and Demography*

MINORITY STATEMENT OF ROBERT W. NASON

Though I believe this report to be a fair representation of the Commission's will, and thus endorse it as a Commission member, no such report can embody all the differences among the Commission members. Hence I would note two reservations which are particular to my view of the University of Pennsylvania.

The introduction to the report notes the relationship between the University and society at several points. Benjamin Franklin was quoted: "An ability to serve Mankind, one's Country, Friends, and Family." On page 2 the report states, "It (the University) cannot expect to change the world, but it can expect to train people and generate ideas which may change the world." Further, "If the University cannot survive by convincing society of the usefulness of its true functions it will not survive as a University." These concepts of service and need are not woven into the criteria for directing and evaluating both academic and nonacademic divisions. The *One University* concept is important for internal support but is not a sufficient criteria. Reinforcing strength where it exists in the University is also important, but the exercise of

these two concepts will not necessarily produce a University in balance with society or its needs in the short- or long-run. The University could conceivably be internally consistent and out of balance with its environment. This Ivory Tower result would hardly be conducive to sound existence, financially, educationally, or academically.

The second point I would like to make is that while we talk about the importance of education, we seem to place priority on the generation of new knowledge. This emphasis is part of our problem as a University at this juncture. Knowledge creation is a necessary condition of our existence, but our educational responsibility is equally necessary. Neither is sufficient alone. For example, the *Professional Schools* report states that "Above all, an excellent professional school must undertake the advancement of the knowledge base in order to bring returns to the profession . . ." Underlying much of our discussion is the idea that there is to be a greater emphasis on education by the faculty in order for the University to carry out its responsibility. Yet not only is this cost of faculty time not brought out in either the introduction or conclusion, but the opposite seems to have strong inference. I disagree with the seeming emphasis on research and publication in the criteria for faculty, department, and school evaluation. My concern is only one of emphasis or balance and not one of absolutes. To some degree, we can increase the quality of both scholarship and education through the recommendations of this report, but we must guard against the seemingly inherent bias which places quality education second.

MINORITY STATEMENT OF J. ROBERT SCHRIEFFER

While I am in general agreement with the substance of the draft report of the University Development Commission as discussed by the Commission members during the first week of January, 1973, I cannot give my full support to those aspects dealing with *Black Presence*, as currently drafted. In particular, while I find proposals 41 and 42 desirable, I cannot support the concept in proposal 43 of an investment fund specifically designated for new black faculty. Rather I would propose that the University make a sincere commitment to attract the most outstanding teachers and scholars available to meet the needs of the University as a whole. An important aspect of these needs is the broadening of the composition of our faculty in regard to a spectrum of minority groups, both to provide a richer experience for our students and to aid these scholars in pursuing creative work in their chosen fields. I feel that the funds ultimately devoted to minority group faculty appointments must depend on the demonstrated availability of outstanding candidates. Further, I believe a more detailed analysis of the remaining proposals in the *Black Presence* area should be prepared for discussion by the University Council and Senate before action on these proposals.

MINORITY STATEMENT OF JEAN CROCKETT

I join with pleasure in the transmission of this report.

It is not a finished document—nor a "scientific" one, but rather a necessary and enormously valuable first step in what should become a continuing University-wide process of self-study, reevaluation in depth and coordinated planning. It attempts an overview of the problems, needs and aspirations of the various parts of the University; and this is necessary if we are to function and evolve as *One University*. With such scope, however, definitive findings could not be produced within a time frame of the dimensions available to the Commission.

The report identifies the crucial problems which we face and places them in a University-wide context, for few of them can be solved in isolation. In some cases where problems are too complex and requirements for specialized knowledge too great to be dealt with effectively by a body such as the Commission, the immediate creation of individual task forces has been urged. In other cases the Commission has generated creative sparks that point the way to solutions of existing problems and to new achievements. A considerable amount of further development and detail work by other groups will be required in some cases to make proposals operational, and they should then be subject to appropriate review.

The report further includes a number of highly specific recommendations. I do not agree with all of these in all details, but I do not believe that the Commission intends any of them as the final best solution to the problem addressed. Rather it offers them

to the University community as its best present thinking, to be debated, modified, detailed and eventually approved or rejected by the appropriate deliberative body or administrative unit.

In this spirit the Senate will move with all dispatch to consider recommendations 21-25, which relate to matters crucial to the interests of the Faculty. In the same spirit, while strongly supporting the need for fiscal targets for individual Schools, and accepting the relevant Commission recommendations as temporary expedients, I have already indicated both to the Commission and elsewhere an alternative principle for setting such targets in the future, which I believe to be more equitable and more likely to create appropriate incentives. Further, I would hope that the central Administration, the Schools and the Council all will respond promptly and constructively to recommendations which fall within their respective areas of responsibility.

My one serious reservation relates to the *Black Presence* proposals and in particular to recommendation 43. While sympathetic to recommendations 45, 46 and 48, I would not assign them the very special priority implied by the extraordinary funding procedure proposed in recommendation 49.

I should like very much to see this University a leader in achieving substantial representation among its faculty of blacks of demonstrated ability. I would raise no objection either to the magnitude of the proposed expenditure or to the funding device, if this purpose can be well served.

The unanswered question is where the qualified candidates are to be found to permit a quantal leap in the number of our black faculty members. The pool of black Ph.D.s recently graduated from quality institutions is not large, nor is it greatly augmented by those from lower ranking institutions who have established their credentials through subsequent publications. The demand for this select group is very strong. We cannot hope to hire a disproportionate share of them unless there is some way in which we can make this University unusually attractive to them. If this is possible it has my full support, but the Development Commission Report leaves me unenlightened as to how it might be done. If we offer salaries substantially above those paid to white assistant professors of similar ability and attainments, this seems more likely to accentuate divisions than to heal them. The remaining alternative—that of bringing in a number of black assistant professors whose attainments are less than those normally required and whose ability therefore remains undemonstrated—raises the most serious questions for a University with a primary commitment to excellence.

I believe that the proposed faculty investment fund can provide an incentive to departments to devote a special effort to searching for black faculty and that such incentives are appropriate providing that it is understood that no compromises on quality will be made. If a sufficient number of fully qualified candidates cannot be found, part of the fund must remain unspent. Because the temptation to compromise on quality may be considerable (since the added faculty member will be in large measure a free resource to the department involved) and because it would be disastrous if a large proportion of those hired under this program either failed to achieve tenure or were concentrated in our weaker schools, it may be desirable that the Provost be advised by a specially constituted University-wide faculty committee in the administration of this program.

A second reservation relates not to any Commission recommendation but to back-up material appearing in the summary on *Endowed Professorships*. I wish to repeat my earlier objection to the unfortunate dichotomy between endowed chairs associated with the undergraduate program and those associated with the Ph.D. program. I also repeat my disagreement with the priorities implicit in the distribution of the 100 endowed chairs proposed, with 40 primarily oriented to undergraduate teaching skills and program development responsibilities, 34 primarily oriented to professional school needs for program and instructional development, and only 15 to 20 for which research credentials and graduate teaching responsibilities will be the primary consideration.

If I may add a personal note, I would like to express my own admiration for the Commission Chairman and Co-Chairman, Robert Dyson and Eliot Stellar—for their enormous dedication to their task, their breadth of vision, their openness to new ways and new ideas, their generosity of spirit in response to criticism and their sensitivity to University process in welcoming full review of the Commission report by the University community and its duly constituted deliberative bodies.

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