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**INTEGRATED DEVELOPMENT PLAN**

**1962**

*UNIVERSITY of PENNSYLVANIA*

INTEGRATED DEVELOPMENT PLAN

1962

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## FOREWORD

Our grasp of the circumstances that define the present is not so sure as to give us any overweening confidence in our ability to plan in great detail for any distant future. Our better furred or feathered companions plan only seasonally but we "look before and after and pine for what is not" and in partial consequence "our sincerest laughter with some pain is fraught." However, we rightly feel a compulsion to employ forethought as best we may, with a deep sense of responsibility for our children and our children's children, and ignoring a long history of error, ignorance, and fallibility of foresight, we must strive to build upon a shifting base of probability and likelihoods, loosely pinned here and there with a few simple scientific certitudes, a plan for a future society that will be better than our own.

Universities are aggregates of individuals drawn together by a common concern for a better understanding of that knowledge bequeathed us by our forbears and for a questing exploration into the unknown that lies presently beyond our grasp. They are also the catalytic filter beds through which pass successive generations of the most promising and gifted leaders of thought and action for the future of our kind. Their role is so vital to our welfare that we must earnestly employ our best abilities to ensure that they constantly improve in the performance of their essential functions. We are not, however, wise enough to set a detailed course for our successors, and our chief concern must be that they inherit from us unimpaired a ranging freedom and a supple flexibility in order that they may use their own best judgments for the evolution of these institutions, untrammelled by our ignorance and prejudices, and plan

for them in turn for what we hope will be the greater knowledge and insights they will have won.

The society for which we plan will consist of men and women somewhat like ourselves, patterned in their relationships and institutions in some way evolving from the present that we know. In consequence we have some assurance that we can lay the best foundations for their future welfare by taking those measures which will place the greatest advantages society can offer at the service of those individuals in future generations who are gifted with ability and integrity and who are responsibly minded to make the best use of their innate talents and what wisdom they can achieve in the interests of their fellow men. We do not know in any definitive way how to recognize, select, and encourage these people, nor what facilities will best support their purposes, nor the pattern of educational experience that will most challengingly evoke their latent potentialities. We can only open the door of opportunity, and thereafter provide them with freedom to explore the world thus open to them and the excitement to learn from it more than we ourselves have been able to discern.

At the University of Pennsylvania we have a long and cherished tradition of freedom of thought, exploration, association, and expression. Early in its history of nearly two and a quarter centuries the University was shaped by the prescient but practical genius of Franklin who advocated in his "Proposals Relating to the Education of Youth in Pensilvania" that students be taught everything that is useful and that they be strengthened in body as well as mind and housed and fed plainly, temperately, and frugally. He urged that by constant practice they achieve the ability to speak and write well in order that their communications might be clear and that they study history, mathematics, and science. He was centuries

ahead of his time when he said, "The history of commerce, of the invention of arts, rise of manufactures, progress of trade, change of its seats, with the reasons and causes, etc., may also be made entertaining to youth and will be useful to all."

Legally the University of Pennsylvania is an eleemosynary corporation governed by trustees, and under its charter it enjoys broad privileges and immunities in the conduct of its operations. Through the administrative structure the advice and counsel of the scholarly community bear directly upon the trustees, and these bodies participate jointly in the practical governance of University affairs. The objectives are, broadly speaking, all that may be comprised within the public interest in the sphere of higher education: the promotion of the learning process through the instruction of students and the conduct of research and scholarly pursuits by the faculty; the advancement of knowledge by scientific exploration; and the rendering of appropriate professional services to the public in the course of its educational programs and curricula. Though these objectives are necessarily pursued in accordance with policies established by the trustees and academic community, the dedication of these bodies to their responsibilities, and their sensitivity and responsiveness to the temper of public assessment of their performance are such that in practice almost no difference can be discerned between the nature of the educational performance of our outstanding private universities, such as Pennsylvania, and of those universities directly responsible through the structure of government to the voters of a state or municipality.

In general recognition of this situation Pennsylvania receives and welcomes support from both the private and the public sectors of society. The City of Philadelphia, the Commonwealth of Pennsylvania, and the United States

Government all contribute in varying degrees to the educational programs at the University. Individuals, corporations, societies, and foundations likewise provide to differing extents the resources that are required to achieve the objectives that have been set. Universities are fundamentally uneconomical types of enterprises in the sense that their growth does not add to their financial resources but conversely is contingent upon the enlisting of external support. At Pennsylvania the policy is adopted that the student as a direct personal beneficiary of the opportunities offered by the University should bear as large a proportion of the appropriate cost of his education as his circumstances permit. Hence a tuition is charged and it is our policy to keep this sensibly uniform among the schools offering bachelor's and advanced degrees. On the other hand, it is in the public interest that the electorate be informed, that learning flourish, knowledge advance, and professional competence and leadership be enhanced. In consequence, funds are sought from all appropriate sources to supplement tuition in pursuance of these ends. The difficulty of the over-all financial problems that beset universities in the American tradition of private initiative is very great, and calls for the wisest judgment and the most unremitting effort if the highest quality of educational opportunity is to be placed at the service of the greatest number of those young men and women who possess the ability and determination to make the most effective use of such an advantage. Both quantitative and qualitative factors are involved. Size cannot be the sole criterion, nor are our subjective assessments of educational values and methods so well established and so free from question as to permit us to be doctrinaire in their employment. As the task is larger than the available resources, every effort must be made to increase both the efficacy and the efficiency with which these resources are applied.

Possibly the most important guiding principle should be that we seek at all times and with our best judgment to involve the ablest colleagues as students, faculty, trustees, and friends with us in this enterprise in order that we may not only do well in the present but lay the foundation for doing better in the future. This requires that the University provide the atmosphere and challenge that will attract such men and women, and also that we have the emoluments necessary to supplement the resources of those students we select, and that we have competitive salaries for our faculty members and provide for them the necessary facilities in the form of buildings, books, equipment, and professional opportunities. The communities we serve are international, national, and regional. Wide geographic representation upon the campus ensures that breadth and catholicity of atmosphere within which Americans can prepare for world responsibilities, and deeply rooted local traditions give our fellow citizens a sense of history and mission and our visitors some insight into an American community and its customs. We welcome all able and promising students who come to us prepared to participate in our programs without regard to sex, nationality, race, or creed. And we seek to engender amongst them a sense of true community of intellectual purpose and of human brotherhood in their relations with one another.

The specific basis for the Integrated Development Plan now being formulated is in part the results of the Educational Survey that the University conducted in the five-year period preceding 1960 and in part the subsequent deliberations of trustees, faculty, and administration in joint committee sessions during 1961 and 1962. As it proceeds from where we are to where we hope to be, it is presented in terms of the present plant and facilities, the present faculty and student communities and the present



pattern of academic departments and schools of instruction. But throughout the plan the University is considered as a whole unit and not as a federation of disparate schools or departments. Hopefully, by keeping the focus upon people and their needs, the measurement of resources in terms of dollars will be a useful convenience and not a device that will ever distort the picture that is presented or distract attention from our central purpose.

The persons listed below have been members of the committee indicated during all or part of the given committee's period of service.

Joint Committee

Mr. Paul J. Cupp	Mr. Henry R. Pemberton
Mr. William L. Day	Dean G. Holmes Perkins
Mr. Robert Dechert	Dr. Malcolm G. Preston
Dr. Robert D. Dripps	Mr. H. Nedwill Ramsey
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Mr. Harold E. Manley	Dr. Alfred H. Williams

Committee on Educational Planning

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Dr. John R. Brobeck	Dr. Jonathan E. Rhoads
Dr. Carl C. Chambers	Dr. Otto Springer
Dr. Robert D. Dripps	Dr. Albert J. Stunkard
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Committee on Physical Plant Growth

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Mr. Harry Coggshall	Dean G. Holmes Perkins, Chairman
Dr. Charles S. Goodman	Mr. E. Craig Sweeten
Dr. Walter Isard	Mr. Harold Taubin
Mr. John L. Moore	

Committee on Operations

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Dr. Donald S. Murray

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Mr. Robert P. Roche  
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Mr. Chester E. Tucker

UNIVERSITY OBJECTIVES

I. Advantages of an Urban Setting

The University of Pennsylvania is in an urban setting and this creates many problems for us in terms of cost of land, parking, traffic and undesirable encroachments peculiar to a city. At the same time the urban environment provides peculiar advantages which contribute significantly to the strengths of all schools, particularly those at the graduate level. This is easily seen to be true for the Medical School with its hospital needs, for the Wharton Graduate School with its close relations with the business community, and for the graduate Engineering division in an industrial setting. In the undergraduate schools also we must develop an increasing awareness of the unique advantages offered by this urban area and include in our educational programs the cultural opportunities of our environment. Philadelphia offers to our students fine music, outstanding museums, unusual libraries and the many other assets of a great city.

With regard to our immediate surroundings, the following statement by the Committee on Physical Plant Growth summarizes our policy:

"The University is a community of scholars. Its physical environment should be designed to foster its educational and social objectives and to promote frequent and profitable contacts between students and faculty of all persuasions. Its buildings, its walks and quadrangles will inevitably reflect the urban character of its setting within the larger University City. Its form will grow out of a series of interior green courts designed for the widest variety of passive and active use

which in turn will be connected by continuous pedestrian greenways.

"The planned improvements in University City will encourage faculty members to move back to the vicinity of the University and will also envisage a time when a much larger proportion of undergraduates and graduate students will be in residence than at present. For the undergraduates, both men and women, the house plan will provide that necessary academic and social unit which can maintain the human scale within an institution constantly growing in size.

"In a university whose life is measured in centuries rather than in years, there will inevitably be a diversity of architecture reflecting historic changes in the arts. The unity, charm and beauty of Oxford and Cambridge testify eloquently to the virtue of each generation building in its own way while at the same time respecting the creations of its forbears. Through the control of exterior materials and scale, the University will gain a unique architectural character, which in its way can be as distinctive as that of its older English sisters."

## II. Quality of Student Population

It is the aim of the University to furnish an excellent education to selected undergraduate and graduate students of high quality. Though the University will increase gradually the number of undergraduate students that it will accept in the next decade, the increase will be a limited one. We do not expect to expand the size of the undergraduate student body in proportion to the increase of young people attending institutions of higher education throughout the country. This should mean that the quality of our student body will improve over this period.

At both the graduate and undergraduate levels, the University of Pennsylvania attracts students from many countries and from most of our fifty states. A large number come from the Delaware Valley and adjacent regions. Further, the diversity of our students is reflected not only in geographic distribution, but in the social, economic and religious backgrounds of their families. This should be recognized as an asset. Every effort should be made to attract a student body of high academic potential with a wide range of interests. Without lowering academic quality, an effort should be made to maintain this diversity so that our students, instead of being brought up in a closed social environment, will experience a student life closely resembling the world beyond the campus.

### III. Undergraduate Schools in a Major University

We have an opportunity to develop a very strong undergraduate curriculum within the framework of a large University. All too frequently the small liberal arts college is taken for a model of American education. Smallness is not necessarily a virtue in education. The more extensive academic communities can offer, particularly in the junior and senior years, a level of education in the sciences, languages, history and the arts that is outstanding in scope and quality. A University, such as Pennsylvania, obviously has library and laboratory resources beyond those of any liberal arts college in the country. For undergraduates here our greatest asset is the faculty, involved in research and scholarship and carrying virtually all of the teaching load of the junior and senior years. The acceptance by some of the senior faculty of an increasingly significant responsibility for the first two years, would give us an undergraduate

educational program second to none in this country.

#### IV. Student Residences

Though a proportion of our students will always live at home and commute to the campus, it should be the goal of the University to provide housing under its control for the major part of our undergraduate resident students and for some of the graduate students and graduate professional students. The University has already approved the new House Plan for undergraduate men, and we should recognize that a corresponding plan, modified to meet their needs, should be instituted immediately for the undergraduate women students. This new concept of housing will not only provide better quarters for social and intellectual life, but will contribute toward a desirable integration of all groups among both commuting student and the resident student. It should also bring together younger and older members of the faculty in closer relationships with students. Education does not stop at the classroom or laboratory. It should pervade the whole of undergraduate life and this aim will be furthered by the development of the House Plan.

#### V. Liberal Education

With the rapid rise in standards of secondary school education, and the selection of a larger number of gifted students by the University, the curriculum for the freshman and sophomore years should be under constant reappraisal. Too often the freshman year has been devoted to correcting the inadequacies of a high school education. Many of the students coming to us should be given advanced placement, skipping either

all or most of the freshman program. If the current emphasis on higher standards in secondary schools continues, much of our introductory work might well be challenged.

Liberal education is a responsibility of all our undergraduate schools and faculties, not the sole responsibility of the College. A liberal education does not mean solely a knowledge of literature and the arts, but an attitude towards knowledge and a discipline that allows of continued intellectual growth and self-education. If we select our faculty with sufficient care, liberal education can become a pervasive influence throughout the four years of all of our undergraduate programs, including courses that have professional goals.

#### VI. Honors Programs

The University has started this year an experimental General Honors Program for freshman and sophomore students of the College and the College for Women. As experience is gained this program should be broadened so that undergraduate students in the Wharton and Engineering Schools may also participate. Students currently in the Honors Program might then enter the Engineering or Wharton Schools at the junior class level.

There should be an increasing emphasis on independent study in the junior and senior years in all undergraduate schools. This may be developed in different departments by different means. In some instances it will be developed as departmental honors.

VII. Education for Women

The University is committed to a program which provides educational opportunities for women that are equal to those we offer to men. Except for physical education all of the courses in the University are co-educational or potentially so. All of the schools except the College and College for Women are also co-educational. Not only should the women have equality of opportunity in the various schools, but they need a student government and some activities under their own leadership and own control.

A successful program for women students of the University requires us to have a fair number of highly-qualified women faculty members. Currently, there are too few able women in our faculties. Many of the departments and schools seldom consider women candidates in filling vacancies. Real efforts should be made to increase the number of gifted women on the University faculty.

The organizational structure of the University in relation to women students is secondary to the educational opportunities. The Educational Policy Committee has asked the College of Liberal Arts for Women to examine the possibility of working out a distinctive curriculum for women students. The College of Liberal Arts for Women should be allowed adequate time to explore this possibility. At a future date (say 1965) it may be wise to reexamine the separate status of the College of Liberal Arts for Women.



### VIII. Graduate Schools

The reputation of the University in the scholarly world depends largely on the calibre of the faculty, of the graduate students, and of the graduate programs, whether in the arts and sciences or in the graduate professional fields. We should strive to have an outstanding Graduate School of Arts and Sciences, and outstanding graduate professional schools. It is probable that in some of the graduate fields the increase in student numbers will be greater than in the undergraduate schools.

Further efforts should be made to build a core of full-time graduate students in the Graduate School of Arts and Sciences and in those graduate professional schools where currently there are few full-time students. This will require an increased number of graduate fellowships. Many of these fellowships may come from without the University; but we need increased fellowships, particularly in the humanities and in education, granted by the University.

In recruiting new faculty we must recognize that many members should be persons qualified both as able undergraduate teachers and as research scholars adept at graduate instruction. While some faculty members may give the major part of their effort to graduate work and others to the undergraduate programs, we hope that most of our faculty will participate in both undergraduate and graduate teaching.

To be realistic in our planning it must constantly be borne in mind that graduate education is extremely costly not only in terms of faculty time per student, but in the facilities required for laboratories, studies and libraries, for both the students and faculty.

Advanced study beyond the doctor's degree has already become common in the physical and biological sciences. Many able young men and women spend from one to three or more years in post-doctoral studies before accepting formal appointments in our major American universities. Fortunately these post-doctoral people are supported largely from research grants and governmental post-doctoral fellowships. This trend towards advanced study that already exists in the sciences should be encouraged in the humanities and the social sciences as well. Therefore, our graduate school should plan for facilities and for fiscal support for advanced study in areas where it now occurs but to a small extent.

#### IX. Adult Education

Adult education has too often been thought of as undergraduate college education on a part-time basis, frequently given in a separate school. The situation is rapidly changing and we find that an increasing number of graduates return to the University for further study. In the future, the University should become an intellectual center for the community so that our alumni and graduates of other universities may come at appropriate times to various divisions of the University for additional educational experience even when this is not oriented towards a degree. Mature students who are academically qualified to do undergraduate work should be encouraged to do this work on a day-time basis in existing University courses, rather than in courses at night and on Saturday mornings.

The future of the Wharton Evening School and the College of General Studies should be resurveyed. It is possible that they might

continue with programs in adult education which are not degree-oriented.

#### X. Faculty

The stature of the University is largely determined by the quality of its faculty. Though there are many gifted faculty members on the staff at Pennsylvania, vigorous efforts must be made to increase the calibre of the faculty in the next decade.

An outstanding faculty requires a fair proportion of senior people fully established in their areas of scholarship and on the national scene. In addition, we need a vigorous group of younger men and women, particularly at the rank of assistant professor. Here we must take great care that these younger people are allowed to contribute to the development of new courses, to the revision of the curriculum, and that they have an opportunity for their own intellectual development and professional advancement. Sabbatical leaves are particularly effective when given to an assistant professor who, after three or four years of service, has demonstrated his probable capacity for a place on the permanent staff of the institution. This is particularly so for young men and women who have given a fair amount of their time to administrative duties, as student advisors or on curriculum revision. By and large, a semester or a year's leave of absence for independent study and research is a better reward for such duties than extra compensation. Such a program will mean that we can attract some of our most able younger people into administrative duties without jeopardizing their professional careers and advancement.

Attracting outstanding persons to the faculty at both the junior and senior rank, and the retention of the most able members on the faculty

require that we pay salaries competitive with the best institutions in the country. Our current salaries are not quite equal to those in the top group of American universities. In the decade ahead we should include in our planning for salary increases, not only the percentages required to make and keep us competitive, but also three other important facets of the problem: the probable increase in consumer prices, the expected increase in average incomes for various other occupations in the United States, and an estimate of the increases required to restore the relative position of academic salaries that until recently have lagged behind the rise in real incomes in the nation generally.

In addition to salaries, other provisions are essential for the recruitment and maintenance of a faculty of high calibre. Adequate faculty studies, an outstanding library, good physical facilities for teaching and research, and the spirit of freedom and responsibility are equally important. The availability of secretarial and other assistance will also frequently be decisive in the retention of a particular faculty member.

Continuous studies should be made concerning the relative number of persons in junior and senior ranks and the age distribution within the faculty. Diversity within the University faculty is highly desirable and we will always wish to have persons on our staff who have had experience in other universities, not only in America but in foreign universities. We will also wish to furnish to the members of our faculty, educated at Pennsylvania, the opportunity for work and study in other institutions early in their academic careers.

A revolving fund on the order of fifty to one hundred thousand dollars a year, centered in the Provost's Office rather than in any particular department or school, might make this program an effective one, and over a period of years bring about a marked increase in the quality of the University faculty.

#### XI. Libraries and Information Service

In a great university both the students and faculty must have access to extensive collections of books and periodicals. These should all be catalogued in the central library, and housed in part in the main library building, in part in departmental and school libraries. Fortunately, we will soon have excellent physical facilities for the main library. Some of the departmental libraries are inadequate in physical facilities as well as in funds for the purchase of books and periodicals. This, an old university library, probably stands among the top ten university libraries in the country, but, in current purchases it stands only in twenty-second place. In the years ahead an increasing percentage of the University income must be devoted to the purchase of books and periodicals for the main library and for the departmental libraries.

The Law Library may be used to illustrate our present situation. The appropriation for the purchase and binding of law books and serial publications has been inadequate for years. We now face heavy expenditures to fill gaps for prior years. If, over a period of a few years, special gifts could be devoted to the Law and other libraries, the gaps in our collections could be filled and our libraries made far more adequate to serve the needs of the students and faculty.

Within the next decade it is quite probable that computing machines and other physical devices may make available new information services. We should be prepared to follow such developments and at the appropriate time introduce such aids into the retrieval of documentary information. It is important that there should be members of the faculty and of the central library who are aware of these new developments and see to it that our University keeps abreast of the technological revolution in information retrieval.

### XIII. The University and the Community

The University and its faculties must accept certain obligations to the city, the commonwealth, the nation and to society as a whole. We best discharge our primary obligation by furnishing a superior education in the fields in which we choose to be active, by the addition of new knowledge in research, and by setting the intellectual standards for the community. However, at many times and places individual faculty members may contribute to the community in an advisory capacity, as members of planning commissions, governmental boards, as consultants to schools, governments and industries. At times this advisory function may be more formally recognized, as in the Institute of Local and State Government and in the Educational Service Bureau of the School of Education.

Since the University receives community support the obligations mentioned above are real. However, most of the faculty should find their primary obligation within the institution. Community service is fine as long as it is consistent with the primary obligation of the faculty member and the primary objective of the institution.

### XIII. Experiments in Education

By nature a university and its faculties are conservative. The nature of knowledge changes and new fields develop which require representation in the university curriculum. Older subjects are frequently retained beyond their usefulness. The same spirit of inquiry that pervades the scientific laboratory should govern our approach to the curriculum. In other words, curricula of all schools should be under constant study and reappraisal. With the introduction of new courses, certain of the existing courses should be deleted.

In addition, new methods of teaching, whether involving mechanical aids, closed circuit television or other creative approaches to the learning process, should be constantly explored. The status quo has no more place in a university's educational program than in one of the professions.

### XIV. Continuous Planning

The current integrated development plan will be out of date within a year. An appropriate mechanism for its continuous reappraisal is essential. We recognize that the basic planning must be in the educational program, and that the physical planning must be constantly integrated with it to serve the purpose of the educational process. The priorities in the development of the plan year by year must be such that the basic purposes of the University are continuously furthered.

XV. Intellectual Atmosphere in Student Activities

A fair amount of student energy and activities will always be devoted to athletics whether intramural or intercollegiate. In addition, we have a long history of student activities through Mask and Wig, the Pennsylvania Players, the Glee Club, and various student publications. However, outside the classroom the atmosphere for intellectual pursuits has been far from ideal at Pennsylvania. One positive gain has occurred through the past year - the series of string quartets brought to the campus under the leadership of the Music Department. As we look to the future the students should receive more support from the faculty, the administration and student government for intellectually oriented activities whether in art, music, dramatics or publications.

There is a desperate need for a center for the performing arts on the University campus. This might well start on a small scale with the first unit being an appropriate auditorium for little theatre and for chamber music. One might hope that in the development of University City an expansion of such a development might occur not necessarily on the campus but closely associated with the University. Further we need within the campus area a book store offering a far wider selection, including foreign books, than is possible at the present Houston Hall Store which too often is mainly preoccupied with text books and supplies.

Though the two suggestions above would involve additional facilities, much may be done about the general tone of campus life without adding to our physical structures or our budgets. We would press our students and faculty of high ability to let their talents have full rein and to charge the academic community with their own intellectual excitement.



EDUCATIONAL PLANNING

HYPOTHESES OF THE COMMITTEE ON EDUCATIONAL PLANNING

The University of Pennsylvania plan for the future is based upon an enunciation, after careful deliberation, of educational purposes to which we have dedicated ourselves. Programs for physical expansion, and for its financing, have been designed with a view to facilitating the achievement of our educational goals.

These goals are: (1) Creation of a program for undergraduates in which the responsibility for providing liberal education, as well as honors programs for gifted students, is shared by the faculty of every undergraduate school. Housing and recreational facilities are to be provided with a view of furthering the attainment of a rewarding educational experience for all undergraduates. (2) Strengthening the Graduate program by expanding the functions of the Graduate School of Arts and Sciences to provide a University-wide emphasis upon outstanding scholarship in all fields while maintaining and enhancing the values which have been derived from the assumption of major responsibility for research and scholarship by the faculties in each department. (3) Building upon the unique strengths of our Professional Schools and providing them with the means of responding adequately to the challenges in the fields of research and the other challenges arising from the changed world environment of the Twentieth Century in which outstanding professional leadership is more vital than ever for the safety and welfare of the nation.

Although for purposes of emphasis the goals above have been separated into three areas, we are aware of the interrelationships between undergraduate, graduate and professional areas as envisioned in the Integrated Development Plan.

THE COLLEGE

Departments of instruction budgetarily comprised

Anthropology	Linguistics
Art	Mathematics
Astronomy	Music
Biology (Division of)	Philosophy
Chemistry	Physics
Classical Studies	Psychology
Earth Sciences	Religious Thought
English	Romance Languages
German	Slavic Languages
History	

Degrees in course

Bachelor of Arts  
Bachelor of Science

Educational considerations and planning

This is one of the four major schools which are concerned with the undergraduate educational program. While the members of the departments of instruction budgeted in the College are concerned with undergraduate and graduate work associated with the programs of many other schools, the curricula of the College are those leading to the B.A. and B. Sc. only. The Associate in Arts degree is conferred by the College for 62 credits of work done in the College of General Studies, in addition to the B.A. which is also attainable in the College of General Studies. Though most students enrolled in the College are pursuing preprofessional programs leading to careers in medicine, law, science, teaching, etc., the College has a major concern for and role in the insurance of a broadly based, liberally oriented educational experience for all undergraduates. As of July 1, 1961, both the College and the College for Women strengthened and expanded their programs of liberal arts preparation for teachers at the undergraduate level. The Education courses offered are being taught by the faculty of the Graduate School of Education.

The principal problems which the College will continue to face are those of providing the most challenging educational opportunities within its areas to the increasingly demanding undergraduate population of the University. The curricula, in particular the introductory courses and the selection of courses approved for the satisfying of group requirements should remain under constant critical scrutiny; the General Honors Program also should contribute much to maintaining high standards in all courses offered on the undergraduate level; upper-class departmental honors programs as well as regular major programs need to be thoroughly reexamined, strengthened, or reorganized; new methods of instruction should be explored and assessed; advising and counselling should be improved and expanded, and a wider variety of faculty and student contacts both within and without the classroom should be attempted. It is estimated that the decade ending in 1970 will see an enrollment increase of approximately 60 per cent from about 2000 to about 3200.

THE COLLEGE OF LIBERAL ARTS FOR WOMEN

Departments of instruction budgetarily comprised

None

Degrees in course

Bachelor of Arts  
Bachelor of Science

Educational considerations and planning

This is the second of the four major schools which are concerned with the undergraduate program. Though women are enrolled in all other undergraduate schools except the College, the College for Women enrolls women exclusively. The members of the faculty of the College for Women are selected from departments of instruction which are budgeted in other schools. This faculty is concerned with the problems of education for women in curricula similar to those of the College. Students in the College for Women attend classes with the students of the other undergraduate schools. The other remarks under the section on the College apply in general to the College for Women as well. The enrollment by 1970 is anticipated to increase by 60 per cent from about 1200 to about 2000.

As of July 1, 1961 both the College for Women and the College strengthened their programs of liberal arts preparation for teachers at the undergraduate level. The Education courses offered are being taught by the faculty of the Graduate School of Education.

THE WHARTON SCHOOL

Departments of instruction budgetarily comprised

Accounting  
Business Law  
Economics  
Finance  
Geography and Industry  
Insurance  
Marketing  
Political Science  
Regional Science  
Sociology  
Statistics  
Transportation

Degrees in course

Bachelor of Science in Economics (Undergraduate)  
Master of Business Administration ) (Graduate)  
Master of Governmental Administration )  
Associate in Business Administration (Evening School)

Educational considerations and planning

This is the third of the four major schools which are concerned with the undergraduate educational program. The baccalaureate program of the Wharton School is composed of the underclass programs, which should not differ in any material way from those current in the other major undergraduate schools of the University, and the upperclass major programs which, because of the departments of instruction comprised budgetarily in the school, represent major programs in the social sciences, business and finance. The principal educational problems faced are in general the same as those listed under the College with the additional problem of transition to a broadly fundamental and liberal program in the areas of business and finance. The new undergraduate curriculum, launched in the fall of 1961, is a major undertaking involving University-wide participation. It should be strongly supported and continuously appraised by criteria established to

evaluate its achievements toward the basic objectives set for it. These include the development of general educational content of so-called "business core courses" with a view to making them a part of the general education offerings of the University. A great opportunity is presented to the Wharton School to lead the way in improving undergraduate business education in the country at large. The increase in enrollment in the undergraduate program during the period prior to 1970 will probably be only a few hundred students, though this will to some extent depend upon the development and reception of the new curriculum. The additional costs attributed to the school's baccalaureate program are associated with improvement in quality rather than size, and it is recognized that both the stimulation of research and the intensive effort on instruction will require added resources and sympathetic administrative recognition of personnel problems.

In addition to the undergraduate program a sub-baccalaureate associate certificate is given in the Evening School of Accounts and Finance. Consideration of propriety of University emphasis and economy of educational effort in a community where other institutions are available to offer elementary instruction indicate that the University should study carefully the possibility and desirability of reorienting this adult education effort toward more advanced courses and curricula and relating it to the general University program in adult education rather than having it remain affiliated exclusively with the Wharton School.

Finally there are curricula leading to advanced professional degrees. Plans for a revision of the Master of Business Administration program (the Wharton Graduate Division) are well under way. A doubling of

student enrollment (to 1200 or 1300) by 1970 is anticipated. This will necessitate additional physical facilities. A Management Science Center must be established so that computer usage can be made an integral part of the teaching and research programs. A management science center must be established if education for business is to be kept abreast of the developing theory and practice of executive management. A focal point is needed for research by faculty and graduate students in such areas as the use of mathematical models in decision making, the application of electronic computers to complex information systems, and the application of behavioral science concepts to problems of organization and leadership.

It is only prudent now to contemplate that, in from ten to fifteen years, the library facilities, to become available in 1964, will be less than adequate for the larger student body. On the assumption that the Graduate Division, in years to come, will be the major educational responsibility of the Wharton School, present plans should provide for an integrated Wharton School Graduate Center.

A major educational program involving the Wharton School faculty which is yet to be worked out in detail is the Ph.D. program in applied economics offered in the Graduate School of Arts and Sciences. This will be designed for those students who desire to teach in collegiate schools of business and to assume research responsibilities in government and business.



THE ENGINEERING SCHOOLS

Schools of instruction budgetarily comprised

Mechanical and Civil  
Chemical

Electrical  
Metallurgical

Degrees in course

Bachelor of Science  
Master of Science in Engineering

Educational considerations and planning

This is the fourth of the major schools which are concerned with the undergraduate educational program. Though the rigor of undergraduate specialization traditional in this discipline sets it somewhat apart from the programs of the other three major undergraduate schools even in the underclass years, a timely and imaginative broadening of the curricula of the school is under way. Again the principal educational problems facing this school are qualitatively the same as those set forth in connection with the College. In consonance with the impingement of modern research and development, the evolution of the curriculum will continue to be toward a liberalizing of the older concepts that established boundaries between the classical subdivisions of engineering, emphasizing a well rounded education in engineering science. It is recognized that the undergraduate program in engineering involves interdisciplinary work with the College in the liberal arts and sciences and with the Wharton School in various areas.

An increased undergraduate enrollment in engineering is desirable in the national interest. As the facilities at Pennsylvania are adequate to accommodate a larger undergraduate body than at present, the University will welcome as many competent and promising candidates for admission to

this curriculum as it can. However, the number of applicants to engineering schools throughout the nation is, unfortunately, declining slightly, and our applications are also fewer than we could wish though the fall-off is less than the national average. In consequence, it does not appear at present that any considerable increase in the undergraduate enrollment is in prospect, and none has been assumed in the estimates of cost of operation.

The policy of the University in regard to the graduate programs in engineering, which are growing more rapidly than the undergraduate ones, is to give greater emphasis to the development of geographic full-time participation as providing a superior educational experience to students and as increasing the effectiveness of the University's performance.

THE GRADUATE SCHOOL OF ARTS AND SCIENCES

Departments of instruction budgetarily comprised \*

American Civilization  
Oriental Studies  
South Asia Studies

Degrees in course

Master of Arts  
Master of Science  
Doctor of Philosophy \*\*

Educational considerations and planning

This school enrolls post-baccalaureate students preparing primarily for careers in research, scholarship, and teaching. The members of any department of instruction throughout the University who instruct or supervise students working for degrees in this school may be admitted to the faculty of this school. The Committee on Educational Planning recommended that a small group of the most distinguished professors, primarily but not exclusively engaged in graduate instruction in the arts and sciences, be created "University Professors," be charged with a concern for the intellectual pre-eminence of the University in these fields and be placed on a separate budget to be assigned to the Graduate School of Arts and Sciences. The Trustees have already appointed the first of these professors.

Because of the special concern of this school with all areas of academic inquiry, its faculty gives general supervision to the educational programs of the departments of instruction leading to degrees in this school. It promotes research and scholarship generally and in particular

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\* Except in special circumstances or to accomodate interim experimental arrangements, departments of instruction, other than those listed, are not budgeted in this school.

\*\* A new degree for teachers, requiring graduate work comparable to that for the Ph.D. except for the original dissertation, is under consideration.

those programs that are interdepartmental in nature. Through the Dean and his office it participates in the appointment, promotion, and budgetary procedures to assist the departments of instruction and other schools concerned in maintaining emphasis upon faculty excellence and the quality of the research and scholarly programs in which they and their graduate students are engaged.

Though the trend toward post-baccalaureate work for persons who choose careers in research, scholarship, and teaching is increasing in our society, the pattern of investing one's resources in this way is as yet accepted by far fewer persons than those who recognize the importance of undergraduate work. And only in the sciences does society really provide attractive incentives. Yet the caliber of the graduate program, the faculty, and the University as a whole are very largely dependent upon the quality of the graduate students who are attracted; and the needs of society require greater numbers of persons with this educational experience than are currently being supplied. Thus the problem of financial aid is somewhat different in kind but quite comparable in magnitude to that in the undergraduate schools.

Residence facilities can play almost as important a part in the graduate educational experience as in the undergraduate one, and as graduate students are predominantly in a low income group, living accommodations have in some measure to be University-subsidized. Here again the problem of this school and the professional schools is somewhat different in kind from that of the undergraduate schools in as much as the students are more mature and independent and a larger proportion are married. Pennsylvania is even more poorly supplied with residence facilities for this group of students than for its undergraduate population, and a major effort should be made to supply

appropriate living accommodations for a considerable fraction of the single and married resident students in the Graduate School of Arts and Sciences and the graduate professional schools.

The educational program of graduate students takes place mainly in the libraries, laboratories, and other departmental areas, but it is important that there be a center for graduate studies on the campus. This would serve as a home and focal point for an aspect of the University's work that will assume increasing relative importance during the next decade. It would house the offices of the school, certain of the institutes and interdepartmental projects particularly as these pass through their initial organizational phases, a few faculty offices, assembly and seminar rooms with two or three suites and offices for visiting scholars who are here for only a term or so.

THE GRADUATE SCHOOL OF FINE ARTS

Educational considerations and planning

The major recommendations of the Educational Survey relating to the school have been implemented. The areas in which the school has unique professional responsibilities are (1) Architecture, (2) City Planning, (3) Landscape Architecture, (4) Painting, Sculpture and the Graphic Arts.

THE GRADUATE SCHOOL OF EDUCATION

Educational considerations and planning

As of July 1, 1961 the School of Education became exclusively a graduate school. The University's undergraduate program for the pre-service preparation of elementary and secondary school teachers is being undertaken by the College of Liberal Arts and Sciences and the College of Liberal Arts for Women. Graduate programs for the professional advancement of working teachers and for the preparation of college teachers are being expanded to accommodate any qualified applicant who can be encouraged to undertake these programs. For the working teacher, professional courses are available through the Graduate School of Education; additional depth in academic subjects through the Graduate School of Arts and Sciences.

The University is a major source of school administrators and of teachers in specialized areas. It proposes to improve and expand programs in these areas as funds are made available to attract the necessary personnel.

The process of strengthening the faculty of the Graduate School of Education, in accordance with recommendations of the Educational Survey, has begun. There still is need, however, for several key faculty members - scholars in the disciplines basic to Education, who also are outstanding educators. Such men are not easily found, and command substantial salaries.

The school should move as rapidly as is feasible toward at least a nucleus of full-time resident population. While it is clear that the school must continue its program of supplying the courses deemed necessary

for the promotion of elementary and secondary school teachers in the various communities that it serves, it should also move promptly toward a position of leadership in providing a high quality of educational experience in instructional and administrative competences of which our school systems are so greatly in need.

The recommendation of the Educational Survey that the Master's degree and doctoral programs be reviewed should be promptly activated through the establishment by the University Administration of a curriculum review committee composed of (1) University faculty members from subject-matter areas who are interested in the training of teachers; (2) several faculty members from the School of Education; (3) possibly some outsiders. Such a curriculum revision is imperative since the present curriculum tends to be job-oriented whereas the University is now focusing on training in a discipline.



THE SCHOOL OF SOCIAL WORK

Educational considerations and planning

The establishment of a Research Center in conjunction with the school has brought new vigor to the teaching and promises rich possibilities for student and faculty research. The collaboration of other schools and divisions of the University - the Graduate School of Arts and Sciences and the Institute for Urban Studies, e.g. - will be needed to enable the Research Center to make its optimum contribution to community development. The movement of the school to the campus will give it increased opportunity to develop such a Center, drawing upon cognate interests of the University.

THE ANNENBERG SCHOOL OF COMMUNICATIONS

The Annenberg School of Communications is the most recent addition to the schools of the University. The University has recognized the transcendent importance to modern society of all the forms and modes of communication between its members and in particular the so-called mass media which have been established for the dissemination of information of broad general import. The study and analysis, by a segment of an academic community, of these media and of their effect upon the informational background and intellectual reaction of the public offer considerable promise for the illumination of the circumstances that are relevant to the performance of these media and for the delineation of the growing problems that they face.

The structure that houses this school is the gift of the M. L. Annenberg Foundation and its annual program is currently subsidized by the Foundation and the Annenberg Fund to the extent of \$100,000 for general operations. Additionally approximately \$25,000 has been available annually for scholarships. The genesis of the school was a deep concern for the nature, adequacy, and effectiveness of the means of mass communications between men upon which the structure of national societies, international relations, and indeed the future of mankind rest. Its educational program is based upon an understanding of current practice here and abroad of pictorial, oral, and written communication, supplemented by the basic contributions to our background of relevant knowledge supplied by other disciplines including physical science and technology, psychology, the social sciences, linguistics, history and philosophy. Its program of inquiry and exploration extends broadly from how we may best employ

what we know in the interests of the mass communication between people, to the study of all aspects of individual and mass reactions to the formulation and dissemination of information in its many characters and aspects.

The program is barely under way and it is too early to assay any critique of its success. It is, however, concordant with the spirit of the University in emphasizing the participation of the most able, imaginative and gifted leaders in the several contributing disciplines. Its growth will be contingent in part upon the persons whom it interests in its program and in part upon the resources that it attracts. Private, corporate, foundation, and government funds will be sought, but the extent to which they will be solicited and the magnitude of the operation by 1970 cannot presently be envisaged.

THE LAW SCHOOL

Educational considerations and planning

The Law School is steadily increasing the breadth of its educational program through work in Comparative Law and other courses which widen perspective, and through consideration of legal problems in social and behavioral context. It is undertaking to give the educational experience greater depth through student participation in seminars, small-group problem courses and individual research projects, characterized by independent inquiry and research.

The educational and research efforts of the school are suffering from deficiencies in the library collection. The problem of rehabilitating and strengthening this vital facility of the school is simply a matter of finance. Book allocations have fallen far short of matching the need. Increased current financing of the library is a major need of the school.

THE SCHOOL OF MEDICINE

AND

THE GRADUATE SCHOOL OF MEDICINE

The School of Medicine was the first school of medicine in the North American colonies and the first professional faculty to be established at the University of Pennsylvania. This faculty recommends candidates for the degree of Doctor of Medicine. The Graduate School of Medicine came into being quite separately at the University forty-three years ago. The faculty of this school grants a certificate for a two-semester course and recommends candidates for the post-professional degrees of Master of Medical, Dental and Veterinary Science and Doctor of Medical, Dental and Veterinary Science. The members of the faculties of each school cover broadly all the general areas of the field of medicine and certain members of these faculties are likewise members of the faculty of the Graduate School of Arts and Sciences and in that capacity participate in the Ph.D. programs.

For reasons of history, tradition, and geography, the relationship between these schools for many years was not as close as it should have been. Persons who were members of both faculties were initially not numerous; most clinical members of each faculty were unsalaried. The clinical interests of the School of Medicine tended to center in the Hospital of the University of Pennsylvania and those of the Graduate School of Medicine in the Graduate Hospital, but there were many exceptions to this arrangement. The present policy of the University is to bring these schools into a close and intimate relationship with one

another and through a careful appointment and promotion policy create in essence a single faculty. The situation which is envisioned between the School of Medicine and the Graduate School of Medicine is analogous to that between one of the undergraduate schools, say the College of Arts and Sciences, and the Graduate School of Arts and Sciences. The majority of the faculty members of the College, together with members of other faculties such as those of the Wharton School and the Engineering Division, are members of the faculty of the Graduate School of Arts and Sciences, in which capacity they are related together (often in somewhat different departmental groupings) in work leading to the M.A., M.Sc., and Ph.D. degrees. In a similar way, members of the faculties of the schools of medicine, veterinary medicine, and dentistry would be related together in the Graduate School of Medicine, with possibly an additional clinical segment of persons not in other schools, for the purpose of conducting the program of the Graduate School of Medicine. Given the completion of the unification process which is now taking place, the actual organizational relationships between schools will relate to form rather than substance, for an administrative structure of much the same magnitude will be required in any case and differences in organization would be reflected principally in the titles of the administrative officers.

The University of Pennsylvania is one of the leading centers of medical instruction and research in the nation; the total budgets of the schools and hospitals are \$10,396,619 and \$14,528,765 respectively. In contrast to most other universities, the cost of these schools represents little incursion on general University funds since all but two

million of the ten million budget for the schools comes from endowment funds and research grants. The patterns of faculty, students, and financing in the medical schools differ markedly from the other schools of the University. Of the faculty of the Graduate School of Medicine, which comprises 845 persons, only 26 are fully-affiliated with the University and of these only 21 are partially or fully salaried on its budget. Of the faculty of the School of Medicine, which comprises 1,229 persons, 633 are partially salaried and 596 are fully salaried on its budget. Among partially affiliated groups 138 are members of both faculties, and among the fully-affiliated salaried group 86 are members of both faculties. The unsalaried or partially salaried persons receive their principal income from private practice.

The numbers of students enrolled in the Graduate School of Medicine and the School of Medicine are 183 and 507 respectively. It is thus seen that the faculty-student ratios are very high, representing an entirely different pattern of instruction from that of other schools of the University, but essentially the same pattern as is found in other medical schools in this country. The preclinical departments conform more generally to the fully-affiliated, fully-salaried patterns of other schools of the University, but the clinical departments that are primarily concerned with the last two years of the M.D. curriculum display major variations from this pattern. In recent years there has been a remarkable upsurge in support for clinical research as reflected by current grants from the National Institutes of Health which amount to approximately \$7,524,116 annually.

With the rising importance of clinical research and specialized graduate instruction, and under the influence of the academic pattern current in the preclinical area and elsewhere in the University, it is proposed to establish additional fully-affiliated and fully-salaried faculty positions in appropriate clinical departments. Such faculty members may be permitted to supplement their University salary from private practice to an extent which is deemed reasonable by the University administration. The problem here is principally a financial one and, though the University can presently make only modest moves in this direction, a major effort will be made to secure the necessary funds either as endowment or current income to enable us to approach our objective. It should be recognized that there will always be many members of the fully-affiliated faculty who will be unsalaried or partially salaried, and this is desirable for many reasons. In order that no question may be raised regarding the propriety with which the status of affiliation is enjoyed, the University reserves the right to exercise a uniform moderate limitation upon the amount of time that fully-affiliated persons may devote to the care of private patients. As the Committee on Educational Planning reported, it is essential that for the effective conduct of his office, the President be fully aware of the total resources and their disposition for each department of the Medical School as well as for all other departments of the University. The President's approval of departmental arrangements will provide assurance that departmental operations are consonant with the objectives of the Medical School and of the University.



An expansion of the medical division of the University will undoubtedly be necessary both for the advancement of medical science upon which the nation is obviously determined and also for the provision of the larger number of physicians which the Bane report to the Surgeon General of the Public Health Service strongly indicates will be required by the country. The problems that must be faced by a program of expansion in the medical division differ markedly from those in other University divisions; but as the obligation to respond to the needs of society is great, the solution of these problems must be sought. It is convenient to consider the first two, or preclinical, years of the M.D. program separately from the last two, or clinical years, because of the different kinds of problems that they present. In the preclinical years the facilities, equipment and instructional costs per student are high; and there is a very firmly established class and laboratory pattern of instruction which the faculty feels it would be unwise to alter. In consequence, a doubling of the preclinical program would, under present conditions require a doubling of buildings, equipment, and personnel which would present no economies over establishing a second medical school. Thus since a modular expansion to something like twice our present size does not appear feasible, only a modest growth of 5 per cent to 10 per cent in our own preclinical work can be realistically contemplated at this time. Although the expansion in enrollment in the first two years should be restrained for the present to the number which the faculty believes can be taught well, in the planning of physical facilities for the pre-clinical departments provision should be made for the needs of the school for fifty years ahead. Such facilities as are now provided should be built so as to allow for the possible growth of these departments of the school in future decades.

In addition to consideration of the possibility of expanded enrollment at Pennsylvania, in view of the needs of the nation, we are exploring the possibility of interesting neighboring colleges and universities, without present medical faculties, in establishing two pre-clinical graduate years either separately or in conjunction with graduate work in biology. Such a program involving the creation and operation of high quality departments of pathology, pharmacology, anatomy, physiology, microbiology, and biochemistry presents formidable problems and can be accomplished only if a broad base of federal support is available. In many of these areas there is a present shortage of competent teachers and the medical instruction given during the first two years at Pennsylvania would have to be supplied locally as well in some manner or the program of students coming from the colleges would have to be supplemented after their arrival at the University. Recognizing all these difficulties, it is incumbent upon us to explore the possibilities and make the effort required to find workable solutions to the problems presented.

The problems of expansion in the clinical years are not so formidable financially though the policy of expansion of the fully-salaried faculty here will require additional funds. The availability of excellent clinical teachers who are unsalaried or partially-salaried by the University in its hospitals and in a family of affiliated hospitals in our metropolitan area should make it possible for us to expand our work during these years by 30 per cent to 50 per cent by 1970.

Organizational administrative problems with both individuals and co-operating hospitals will doubtless arise and these will have to be solved. The European continental custom of centering a departmental program upon a

single individual who occupies the chair has persisted in this area of instruction longer than anywhere else in American universities, and this presents an ideological block to the measure of decentralization that must be envisioned if the proposed plan is to work. One thinks here of the possibility of establishing a confederation of semi-autonomous groups of clinical specialties geographically located in the several hospitals with the chiefs of the groups in the same discipline holding senior academic rank in the University and serving as the group committee for the discipline somewhat as in the pattern of the Graduate School of Arts and Sciences. The gradual establishment of a satisfactory but more compatible organizational structure, possibly along some such line as the above, would not seem completely infeasible and would be essential for the success of the plan.

Budgetary increases in the areas of faculty salaries and student aid will be necessary. In the preclinical departments the faculty salary rates must be competitive with those of other institutions. This will require a 25 per cent increase in budgeted salaries in addition to the 75 per cent across-the-board increase proposed by the administration as the goal to be achieved by 1970. Furthermore, it appears essential to increase income from as many sources as possible, including endowment, to permit long-term planning.

There should be sufficient flexibility in the budgetary estimates to take care of prospective new departments such as genetics and others.

In order to attract superior students in greater numbers it is recommended:

- (1) That at least half of the scholarship funds available

be expended according to the policy of the Graduate School of Arts and Sciences designed to attract the best possible candidates as opposed to the conventional pattern followed in undergraduate schools of making financial need the chief criterion for scholarship awards and loan arrangements.

- (2) That provision should be made for a very large expansion of funds to provide scholarships for medical students. It is assumed that in the foreseeable future there will be approximately 125 students in each of the first two years and 165 students in each of the final two years, and that one-fourth of the student body should be provided with scholarships at the rate of \$4500 per year. On these assumptions the scholarship funds should total \$652,500. Such scholarships are essential if the School of Medicine is to compete effectively not only against other medical schools but also against opportunities in other fields of endeavor such as engineering and the physical sciences.
- (3) That funds to the extent of \$4,000,000 be sought at the earliest possible time for construction of a graduate dormitory in which adequate housing will be available to medical students.

It is also important for the quality of their medical care, instruction and research that the University's affiliated hospitals develop their own research institutes of the magnitude of \$500,000

to \$1,000,000 each and that they assume the responsibility of securing funds for this purpose from federal governmental sources or otherwise.

THE VETERINARY SCHOOL

Educational considerations and planning

The Veterinary School is unique in the nation in its intimate and mutually stimulating relationship to a large medical education center and in the evolution and development of the school, this advantage should be carefully maintained and fostered. The school has already added outstanding leadership and support to the faculty and this program must be continued. As the school acquires a more adequate physical plant, funds should be secured to launch its new correlative teaching program which is designed to strengthen the basic and clinical sciences in the school's training and research programs.

THE DENTAL SCHOOL

Educational considerations and planning

The major objective of the faculty of the School of Dentistry is to aid in the development and training of young scholars of integrity who are preparing themselves for careers as practicing dentists and as investigators in sciences related to dentistry and who will eventually provide leadership in dental practice, research, education and administration. The faculty firmly support the view that, given adequate funds, their problems can be solved in such a way as to make the school once again the leading dental school of this country. To this end it is felt that the emphasis in dental education should be shifted from the current preparation of the students as physicians and surgeons of the oral cavity, and also as dental technicians, to the preparation of scholars for the practice of dentistry, and for research and teaching.

The excessively high teaching load of the fully affiliated faculty (an average of 20 contact teaching hours per week) is especially serious for two reasons: (1) it is almost impossible to recruit faculty (irrespective of salary) with such a load of contact teaching hours; (2) it is difficult for faculty members to fulfill the scholarly development required for promotion. Fourteen additional fully-affiliated faculty members will be needed at the 1961-62 level of enrollment to bring the faculty-student teaching ratio to the average of other dental schools and to achieve a 60 - 40 ratio of fully-affiliated to partially-affiliated faculty.

The existing physical plant at the Dental School is in serious need of rehabilitation. Immediate improvement is urgently required if the school is to attract capable students and to hold and secure distinguished faculty members.



THE SCHOOL OF NURSING

The School of Nursing is concerned primarily with undergraduate education though it has some 30 full-time and 20 part-time candidates for the Master's degree and an extensive program of special students who are not candidates for any degree.

The school has made substantial progress since its establishment in 1950 and the quality of its applicants continues to improve. To meet both the challenge of superior students and the University's standards for all undergraduate baccalaureate work there should be continuing improvement in both the professional and academic content of all the school's programs.

THE SCHOOL OF ALLIED MEDICAL PROFESSIONS

This is the smallest of the schools concerned with the undergraduate educational program. The candidates for the bachelor's degree now number about ninety. The school also offers two special programs leading to certificates for holders of bachelor's degrees; presently these include about ten students in Occupational Therapy and twenty in Physical Therapy.

There is very great immediate need and there is substantial evidence that there will be a continuing and increasing need for persons prepared for professional careers in these fields allied to medicine.

The aim of this school is to produce graduates with high-level scientific and professional training and with a broad background of liberal education. The graduates in Medical Technology are equipped to become administrative and teaching supervisors in diagnostic laboratories and to participate in research. The graduates in Physical and Occupational Therapy are equipped to rise rapidly in the ranks and to take positions of leadership in rehabilitation.

The school's four-year baccalaureate programs, in contrast to shorter and cheaper avenues to a less thorough education, involve a substantial investment in both time and tuition. This places these programs at a disadvantage competitively and tends to keep the enrollment small. Carrying, however, as they do, the University degree at their conclusion, we cannot in good faith with our students or communities compromise the quality of the educational opportunity offered. It must be in all respects comparable to our other undergraduate programs.

The University does not have the general funds to subsidize this school; and though an increase in enrollment would reduce the problem in magnitude, it would not solve it. The situation would be greatly mitigated if the apparently imminent federal support for this field were to materialize and to include substantial scholarships. If it does not do so by 1970, the discontinuance of the degree programs in the School of Allied Medical Professions should be contemplated. Meanwhile the need for a baccalaureate degree in Oral Hygiene has not been demonstrated and the Dean plans to discontinue the program in this field.

THE ROLE OF RESEARCH IN THE UNIVERSITY

The communication of knowledge and the discovery of new knowledge are different facets of a continuous process. The university faculty member is both a teacher and a student. A university without scholarship or research is not entitled to its name.

The opportunities for scholarly work and research offered by the institution affect not only the quality of its teaching and the quality of students but especially the quality of the faculty itself. Much of the integrated development plan is concerned with research--as in the sections on the libraries, the laboratories, the computer center and the graduate schools. Fortunately major support for research in medicine, engineering, law, business administration, physical science, psychology, biology, social work and some areas of the social sciences is currently assured from outside sources of funds. One presumes that in most of these areas, this pattern will continue through another decade. However, equal support is not available for scholarly work in the humanities and in some areas of the social sciences. The primary tool for research in these areas is a great library. Necessary also are adequate free time, secretarial or other assistance, travel funds and appropriate studies in which to work. Increasing free university money for support of research in these areas is essential. Currently the Committee on the Advancement of Research has available to it \$15,000 to \$20,000 a year. An increase of these annual funds to \$100,000 would have a marked effect on research in these areas and upon the quality of faculty that the University could attract and retain.

SUPPORTING ACADEMIC ACTIVITIES

The University Library

The University Library serves the entire University but more especially the faculty and students of the College, the College for Women, the Graduate School of Arts and Sciences, the Summer School, and certain departments of the Wharton School. In technical matters, such as acquisitions, cataloguing and binding of library materials, the University Library services most of the departmental libraries. Once the move is made to the new library building (1962) and the second unit of the library is completed (1965) the faculty and students of the Wharton School, the Graduate School of Education, and the Department of Music now using separately housed departmental libraries, will be accommodated.

What this will mean in increased usage of library facilities in the new library complex is difficult to say. Circulation of library materials in the old library has increased 30 per cent during the period 1954-1961 and there have been similar increases in the departmental libraries. In view of the anticipated increase in student enrollment and the corresponding increase in use of the new library facilities, it would not be unrealistic to expect a 60 to 75 per cent increase in circulation of library materials by 1970. This will mean substantial increases in salary, current expense, and equipment budgets.

In the last eight years the salary budget of the University Library has increased 46 per cent and only 8 new positions have been added (a numerical increase of the staff by 8 per cent). By 1970 a 50 per cent increase in the present salary budget should be anticipated. The present salary budget is \$701,493; a 50 per cent increase would add \$350,746. This

total would include 7 new positions requested for 1962-63. The anticipated addition of approximately 16 other new positions, both professional and sub-professional by 1970 would cost an additional \$70,000, making a projected total by 1970 of \$1,122,239.

The current expense budget has increased 46 per cent in the last 8 years. By 1970, it should be approximately 50 per cent greater than the current amount, making the projected 1970 total, \$103,065.

The equipment budget has increased 100 per cent in the last eight years. By 1970, it should be increased at least 100 per cent over the present level to a total of \$463,260. (It must be always remembered that the chief item of "equipment" is books.)

Deducting the amount of the current budget from these estimates, the projected increase by 1970 is \$857,749. To this must be added certain non-recurrent additional expenses (1962-1970) as follows:

Special rebinding, replacement, preservation filming	\$160,000
Completion of stacks in first unit	60,000
Fund for purchase of special collections, rare books and manuscripts	100,000
Automatic charging, mechanized accounting system, facilities for handicapped students, etc.	100,000
	<u>\$420,000</u>

Thus the total projected increase by 1970 is \$1,277,749.

The departmental libraries are not included in these estimates for salary or current expenses since such items are covered, or should be, in the budgets of the various schools and departments. However, they are included as far as the equipment budget is concerned (book appropriations and binding). Expansion of activities in departmental libraries will inevitably increase Main Library service to these libraries. Because of their hidden and indefinite nature, it is difficult to assess these services, but

insofar as it seems possible a monetary allowance has been made.

### The University Museum

This museum of anthropology and archaeology serves the Anthropology Department and the Departments of Archaeology and Oriental Studies as the laboratory and research facility of those disciplines. Aside from those members of these College and Graduate School departments whose offices are in Bennett Hall, the faculty in these disciplines are resident in the Museum which also serves as the campus pied-a-terre for the program of expeditions that is conducted throughout the world. In recent years the Museum has come to perform an important local elementary and adult educational function and under the Museum's education section some 50,000 school children from the metropolitan area visit it every year. Its auditorium and exhibition halls also play an important role in the academic, social, and promotional programs of the whole University.

The Director of the Museum and his administrative staff, consisting of an Associate Director and Curators for the several sections, are chosen from the faculty of the University and hold academic rank in one of the three departments concerned. Like the Director of Libraries, the Director of the Museum is responsible organizationally directly to the Provost. The Museum Board, as in the cases of lay boards in other University areas, serves in an advisory capacity in matters of policy in both the public and academic interest, focusing attention and support particularly upon the programs of research and exploration and participating in the manifold internal and external relationships that are involved in the extensive operations of the Museum staff.

The Museum's growth during the period until 1970 will be closely related to the expanding programs of research and explorations in the departments concerned. The growth in these departments will probably be at least commensurate with the averages of the College and Graduate School of Arts and Sciences and indeed should probably exceed this average in view of the increasing contacts with other disciplines, particularly in the sciences, which cannot fail to be stimulating to the fields of interest of the departments occupying the Museum. In consequence, the budgetary increase during the period concerned is taken as being 50 per cent, from about \$400,000 to \$600,000. In addition to this the capital cost of an additional wing to the east of the present structure is contemplated at an approximate figure of \$2,500,000.

#### Computer Facilities

Computers and their related activities constitute a major university function. Furthermore, this role will expand rapidly in the future since they are becoming an integral part of research, teaching and administration. Conversely, the strength of a university will depend, to some extent, upon its resourcefulness in providing appropriate computer facilities.

The University of Pennsylvania can be justly proud of the fact that the first large-scale general purpose digital computer, the E.N.I.A.C., was designed and constructed here. While it was also among the first universities to organize a computer center for use by the faculty and students, its efforts must be accelerated if it is to maintain its early leadership.



Computer needs are continually growing and changing in scope. At the same time more efficient and more powerful facilities become commercially available. Obsolescence is always imminent in this field and changes are continually sought by the faculty. While desire for growth and change is a healthy sign, it also demands astute planning by the University because computers and their related facilities are costly and because the appropriate computer complex for the University is, by no means, self-evident.

With respect to current and anticipated costs, it may be reported that in 1960 the cost of operating this University's computer center for the faculty and students exceeded \$150,000. In addition it is estimated that the annual capital depreciation of the equipment exceeded \$100,000. Thus, while there is no reliable way to anticipate the cost in 1970, it is likely that the University should plan to provide at least \$250,000 annually for this function. It is more likely that the dollar cost will have increased before that time even though facilities become more efficient. It should also be noted that many other leading universities are now appropriating, or are planning to appropriate, funds considerably in excess of this amount for their computer centers.

Many methods have been explored and tried in efforts to alleviate the financial burden of computer facilities. Seeking primary support of a university's computer facilities through commercial enterprise has been found to be both impractical and inappropriate. Several universities have engaged in co-operative ventures with computer manufacturers. The University of Pennsylvania has enjoyed a favorable relationship with Remington Rand, whereby that company has essentially given the University a Univac 1 and,

more recently, Solid State 80.

The University of Pennsylvania must be prepared to review its needs in the area continually and to endeavor to provide those computer facilities which will be more appropriate for its position as a leading university. This will be a costly program - at least three-quarters of a million being required for one large computer. It must also be prepared to secure the funds necessary to support such a facility. It may be expected that much of these costs will be paid from research supported agencies but some must come from individuals, corporations and foundation sources.

It should be noted that the estimates referred to above do not include either the capital costs or the operating expenses of computer facilities within the University but located outside the computer center. It is likely that peripheral facilities will continue to develop and expand for special purposes. By and large they will be supported from special sources appropriate to their purposes.

#### The University Language Laboratory

This laboratory, which is a development of very recent years at the University, provides technical and instructional facilities for the Balto-Slavic, Germanic, Oriental, and Romance language departments, as well as the departments of Linguistics and Music.

Six to seven hundred students a week are currently served by this laboratory. It is operated under the general supervision of a faculty committee drawn from the departments having a particular interest in the facility. The director is a faculty member.

It is clear from the impending growth of work in languages and area studies that this facility should grow by a factor between two and three by 1970. Our present estimate is that the budget will increase during this period from \$7,000 to \$15,000 a year. In addition to expenses incident to the relocation of the laboratory, when a unification of the humanistic departments is achieved, a capital expenditure of approximately \$40,000 will certainly be involved during the period in question.

INSTITUTES

Pennsylvania has a number of institutes, attached to it in various ways. Several of the schools have institutes, called by special names but budgetarily part of the school's total operation. Such are the research institutes in the Law School and in the School of Social Work; the Institute for Architectural Research and the Institute for Urban Studies in the Graduate School of Fine Arts; various institutes in the medical schools; and the proposed Management Science Center in the Wharton School.

Other institutes receive all or most of their financial support from outside sources. The Institute of Local and State Government is financed by the Fels Foundation, the University appropriating no funds except those involved in grants for free tuition. The Greenfield Center for Human Relations is supported by outside funds. The Foreign Policy Research Institute operates generally on an annual basis with non-University funds, though in some instances a degree of deficit financing has been required.

It appears, therefore, that in the years immediately ahead the financing of such institutes as these will either be included in the estimates of the appropriate schools or met to a large extent by funds from non-University sources.

STUDENT HOUSING

It will be essential for the University to provide extensive new high quality student housing during the period between now and 1970 if the undergraduate and graduate communities are to grow at a rate which our academic facilities can accommodate and also provide the quality of education experience that is concordant with our purpose.

The following conclusions with respect to needed new student housing are based on undergraduate enrollments by 1970 of some 5400 men and 2400 women and 6500 graduate and professional school students. Part-time students have not been considered in the statement of estimated requirements.

Residences for Undergraduate Men

In the belief that the University's aim should be to provide appropriate residence for all undergraduate students except for those who live at home and for the approximately 5 per cent who for special reasons may require a type of residence not possible in University halls or fraternities, it is estimated that by 1970 new residences for approximately 1750 male undergraduates will be required. It has been generally agreed that freshman residences should be separated from upperclass residences and that University houses should be in units to accommodate 250 resident and approximately 50 commuting students, with both senior and junior faculty in residence. Indoor and outdoor recreational areas, dining facilities, and small libraries should also be a part of the total student residence concept.

The male undergraduate distribution by residence for 1961 as compared with the estimates for 1970 based on an enrollment of 5400 men students is as follows:

	<u>1961</u>	<u>1970</u>
University dormitories	1450	2900
Fraternities	725	950
Non-University campus res.	950	250
Living at home	875	1300
	<u>4000</u>	<u>5400</u>

It should be noted that there is no indication that fraternity residences will accommodate in 1970 more than the present absolute maximum of 950; nor does it seem realistic, on the basis of present admissions data, to anticipate more than a 50 per cent increase in the group of students who will live at home.

Under the circumstances outlined above, the male undergraduate residence requirements are as follows:

1. Construction within the present men's dormitories of a freshman dining commons to accommodate approximately 1100 residents in two sittings with provision for commuting freshmen at the noon meal. This will also free the Houston Hall complex for extra-curricular purposes.
2. Renovation of the upperclass section of the men's dormitories to provide a residence unit of 250 students with provision for 50 commuting students and with dining accommodations and inclusion of quarters for resident faculty. This is necessary as a rearrangement but will provide for no new students.
3. Construction of six 250-man residence units to include facilities as delineated in the House System studies.

#### Residences for Undergraduate Women

The extension of the present women's residence system is recommended to be on a basis of units for 250 to 300 students with appropriate

accommodations for commuting students in each unit and with provision for dining and recreation areas. It seems clear that the policy which requires women undergraduates to live in University residences or in the women's fraternities should be continued.

Following are residence data of the 1961 women's undergraduate student body as compared with the estimates based on the enrollment goal of 2400 students by 1970:

	<u>1961</u>	<u>1970</u>
University dormitories	750	1300
Women's fraternities	150	150
Living at home	700	950
	<u>1600</u>	<u>2400</u>

These enrollment objectives for 1970 indicate that provision must be made in the immediate future for two residence units, each to accommodate from 250 to 300 women undergraduates. Subsequently, two additional units are contemplated. It should be noted that admissions data indicate that the group of women applicants requiring residence are and probably will continue to be this University's largest pool of well qualified candidates.

#### Certificate and Diploma Candidates

These students are mostly young women who are resident fewer years than regular undergraduates and who generally work much longer hours with rigid schedules.

Enrolled in the School of Dentistry are now some 100 Oral Hygiene non-degree candidates, and the University provides housing for about 80 of these women students. It is understood that the School of Dentistry does not desire to increase this group of students beyond 125. The 80 Oral Hygiene students are now housed in four separate units of which

three are not University owned and are unsatisfactory for a number of reasons. One solution to the housing of these students might be provided by the residence facilities now in the preliminary planning stage under the joint P.G.H. - Children's Hospital - University of Pennsylvania program. It is too early to assess the likelihood of the success of this solution; but if it should not prove realizable, the University should undertake to provide suitable residence facilities near the School of Dentistry for 100 students in these programs during the next four to six years.

#### Residences for Graduate and Professional Students

An increase in the enrollment of full-time graduate and professional students from the present 4500 to an estimated 6500 in 1970 will undoubtedly place exceedingly heavy demands on the already short supply of non-University housing in the campus area. It seems reasonable to assume that relatively large numbers of students at the advanced level will continue in their desire to live in non-University owned properties because of family status, desire for independent living, need to economize, and other reasons. Nonetheless, there will be a fair proportion of these students, both men and women, who would welcome the opportunity to live in University residences provided the design included cooking facilities and a degree of privacy. Presently about half of 2250 graduate and professional school students are resident in the broadly defined campus area in non-University properties; approximately 175 are accommodated in the professional school fraternities; 166 are in the Law School Dormitories; and the remainder or 1900 can be considered as commuting from home.

Under these circumstances, it is recommended that the University's planning for the period ending in 1970 include, in addition to the Mayer



Dormitory, graduate and professional school residence for at least 800 students.

Residence Listing Service

The enrollment goals for 1970 will place heavy burdens on the non-University residences in the campus area; and, therefore, the University for a long period of time will face the necessity of providing services which will bring landlord and student together. The most conservative estimate in terms of student demand for apartments, rooming houses, etc., is that it will double, at the least, over the next five years. With this in mind, provision on a regular, systematic basis will have to be developed for residence listings, for leasing arrangements with landlords, for vacancy and occupancy notification and for appropriate property inspection and approval.

STUDENT-ASSOCIATED ACTIVITIES

Non-Athletic Activities

At present there are some 130 non-athletic student activities on the campus and, judging from the rate of growth of these, it is estimated that the number may be 150 by 1970. These presently include such groups as those concerned with publications, music, drama and debating. A portion of the student General Fee is allocated to these activities and, in addition, other general University funds are used for the employment of people in special positions, such as the Director of the Pennsylvania Players and the Director of Musical Activities. It is estimated that by 1970 the University budget for the support of these activities will increase by 20 per cent, from \$29,000 to \$35,000.

With an increasing sense of unity amongst the students in the graduate and professional schools, it is estimated that their activities will increase proportionally more rapidly in the years ahead. The present cost of these activities to the University is quite nominal, amounting to five dollars per full-time student per academic year. By 1970 it should be at least double this, representing an estimated total expenditure of \$65,000.

The role of Houston Hall in extra-curricular activities is an important one and a very considerable number of them should center in this building when the student commons and University store have been moved to other locations and the structure expanded in accordance with present plans. The estimate of the costs involved in the establishment of freshman commons is given elsewhere. Our present estimate of the cost of renovations and additions to Houston Hall as a student activities

center is \$400,000, and the annual budget for the maintenance of the building and the functions related to it, not provided for elsewhere, is 25 per cent from the present \$55,000 to \$70,000 in 1970.

### Athletics

Under this heading are subsumed all such activities as intramural and intercollegiate athletics, physical education and physical recreation. In addition to the facilities which the University presently enjoys in the Hutchinson Gymnasium, Palestra and Franklin Field complex, the University is planning to redevelop the River Field area providing for an additional baseball diamond and multi-purpose field with adequate dressing room facilities. The estimated cost of this is \$1,500,000. The University is currently planning with the General State Authority an indoor athletic facility in the 37/Walnut/38/Sansom streets area which will include a gymnasium floor and space for a number of other athletic activities. The cost of this facility, which will be borne by the General State Authority, will be in excess of \$2,000,000. In addition, the location of a hockey rink on this site would be very desirable. A parking garage will also be located on this block as part of the University's terminal parking program.

The further development of the present women's residence block is scheduled to include at least one playing field and from two to four tennis courts. The projected men's residence system contemplates the inclusion of playing fields of various types in conjunction with each of the houses. With the increased number of students that is anticipated by 1970, it is unlikely that the athletic facilities referred to above will

be found to be adequate.

The acquisition of the Woodland Cemetery is a long-range objective of the University and this would be one of the most promising sites for the eventual installation of additional athletic facilities.

#### University Counselling Service

The University Counselling Service is approaching the completion of its third year of operation, and the demands on the Service have proved without question the need of such counselling. The Service is intended to supplement the many types of informal counselling which take place between students and faculty members, resident counsellors, administration members, and numerous others in the University family; in addition, it is expected to complement the formal counselling of the several personnel officers and Deans, and in certain instances, Student Health Service officers. The vast majority of University students are able through informal counselling and individual initiative to cope with the educational, personal and vocational problems of adjustment; however, there are also a considerable number who require formal assistance to arrive at suitable solutions of particular problems. It is unlikely that the aforementioned pattern will change in the future; indeed, it is probably that with increased numbers of students and with increased awareness of the Service, a slightly higher proportion of the student community will look for guidance and assistance in this University program. The test of this has already come in the growing number of formal referrals as well as in the number of self-referred students.

Against the brief background of experience, it is difficult to estimate the budgetary requirements of the University Counselling Service under the circumstances of predicted enrollment by 1970; however, the demands on staff are likely to require in 1970 a personnel increase of two and a half to three times that anticipated for 1962-63. Space for staff and office personnel has been tentatively planned in the Education sector of the Social Sciences Center, and the location is expected to be in the same area as the Reading Clinic.

#### Student Health Service

In the present year (1961-62) some 35,000 visits will be made to the Student Health Service by students sick or injured. Five hundred or more of these students will be admitted to beds in the Hospital of the University of Pennsylvania and will remain there for a total of 2,500 or more days. The 35,000 visits will be by students from a potential patient population of 10,000 to 12,000 students. The staff which serves them was adequate in 1954-55 from the personnel standpoint. It works in facilities equal to the 1958 use of the service. That the Student Health Service has managed (without substantial increase in personnel or facilities) to cope with such increased usage and demands is commendable; that it can do so to any further degree is improbable.

Looking into the next decade with the prospect of an increase in the number of students, a per capital increase in the usage of the Student Health Service, an increase in the number of resident students, and of women students, there will be need to increase both the quantity of the medical personnel and the facilities. More medical and para-medical

personnel, more examining rooms and physicians offices, more beds to house these ill students will be needed. The present Student Health internal structure, predicated on the use of a small full-time nucleus of physicians supplemented by the part-time services of other physicians, should be strengthened by the greater use of full-time people. The present arrangement is sounder on a financial basis than on a medical basis. It saves money by using physicians when they are needed most. But part-time physicians may have only part-time loyalties. When primary obligations elsewhere conflict with those to the Student Health Service, the latter is apt to suffer. To correct these weaknesses, the balance should be reversed with the preponderance of personnel in the Health Service becoming full-time and the minor number secured from a part-time pool. To accomplish this, the inducement to competent physicians must be such that they will realize an income comparable to that to be expected elsewhere.

PHYSICAL PLANT GROWTH AND FINANCIAL PROJECTIONS

HYPOTHESES OF THE COMMITTEE ON PHYSICAL PLANT GROWTH

Plans for physical expansion have no validity except to the extent that they serve the faculty and students of the University in their attainment of their educational objectives. The University is a community of scholars. Its physical environment should be designed to foster its educational and social objectives and to promote frequent and profitable contacts between students and faculty of all persuasions. Its buildings, its walks and quadrangles will inevitably reflect the urban character of the setting within the larger University City. Its form will grow out of a series of interior green courts designed for the widest variety of passive and active use, which in turn will be connected with continuous pedestrian greenways.

The attainment of these goals will require the maintenance of a clear procedure for making and implementing decisions by the Trustees and the Administration on all matters concerned with the physical expansion of the University. The coordination of these plans must rest with the President's office and can best be implemented by the preparation and annual review of a six-year capital improvement program. The physical expansion of the University is dependent upon not only its own efforts but the assistance of the City, State and Federal governments in the acquisition of land and the financing of many of its improvements. Realistically the availability of land is tied to the timing established by the City's "Six-Year Capital Program" which controls the actions of the Redevelopment Authority.

In listing the projects (1962-1970) the Committee has attempted to make some realistic judgments as to the likely source of funds. These



sources are not mutually exclusive and it is quite likely that new sources of aid will develop in the intervening years which will justify major changes. The coordinated planning with its annual review will permit the maintenance of a dynamic plan capable of reflecting the growing educational needs of the University.

CONSTRUCTION PROJECTS TO WHICH THE UNIVERSITY IS COMMITTED

	<u>Total Project Cost</u>	<u>Additional Funds Required</u>
<b>I. <u>Projects Under Construction</u></b>		
Van Pelt Library	\$5,195,000	-
Annenberg School of Communications Bldg.	2,829,000	-
Biology Building	2,321,000	-
Law School Addition	1,641,000	-
Tandem Accelerator Building	410,000	-
Ravdin Institute	8,034,000	-
Dental School Renovations	536,000	-
New Bolton Center Clinic Building	661,000	-
Interdisciplinary Cancer Research Facility	750,000	-
Nurses' Residence Renovations	<u>756,000</u>	-
	<u>\$23,133,000</u>	
<b>II. <u>Projects in Planning Stage</u></b>		
Laboratory for Research on Structure of Matter	\$3,725,000	\$ 625,000
Mayer Graduate Dormitory	1,550,000	-
Cardiovascular Clinical Research Unit	420,000	-
Duhring Laboratory Addition	160,000	-
Parking Garage	750,000	-
G. S. A. Projects:		
Social Sciences Center	6,086,000	462,000
Veterinary Research Center	2,835,000	43,000
Dietrich Library	5,080,000	-
Fine Arts Building	2,775,000	325,000
Physical Sciences Addition	<u>3,525,000</u>	<u>525,000</u>
	<u>\$26,906,000</u>	<u>\$1,980,000</u>
<b>Total</b>	<u>\$50,039,000</u>	<u>\$1,980,000</u>

C A P I T A L   N E E D S

(1962 - 1970)

	<u>Total Funds Required</u>	<u>Sources of Funds</u>	
		<u>Gifts</u>	<u>Other</u>
<b>I. <u>Academic Facilities (Non-Medical)</u></b>			
Chemistry Laboratory and Classroom Building	\$4,250,000	\$250,000	\$4,000,000
Liberal Arts Classroom and Office Building	3,650,000	350,000	3,300,000
Biology Library and Auditorium	1,100,000	1,100,000	-
Physical Sciences Addition (Phase 2)	2,800,000	300,000	2,500,000
Moore School Expansion	1,275,000	-	1,275,000
Morris Arboretum Auditorium	275,000	-	275,000
Graduate Center for Arts and Sciences	3,775,000	375,000	3,400,000
Social and Management Science Center	3,000,000	250,000	2,750,000
Graduate Wharton Center	6,000,000	6,000,000	-
Social Sciences Expansion	5,200,000	425,000	4,775,000
Liberal Arts Complex - College, Logan, Bennett Halls	2,500,000	2,500,000	-
Law School Renovations	1,300,000	1,300,000	-
Towne School Renovations	1,500,000	1,500,000	-
Particle Physics Building	2,250,000	-	2,250,000
University Museum Wing	2,500,000	2,500,000	-
	<u>\$41,375,000</u>	<u>\$16,850,000</u>	<u>\$24,525,000</u>
<b>II. <u>Non-Academic Facilities (Non-Medical)</u></b>			
Athletic Facilities:			
Gymnasium and Pool	\$3,100,000	\$375,000	\$2,725,000
River Fields and Locker Rooms	1,000,000	1,000,000	-
Hockey Rink	2,000,000	2,000,000	-
Housing:			
Freshman Commons	1,000,000	1,000,000	-
Undergraduate Student Houses:			
Men (6)	18,000,000	10,000,000	8,000,000
Women (4)	13,000,000	7,000,000	6,000,000
Graduate Student Dormitories	4,000,000	2,500,000	1,500,000

	Total Funds Required	Sources of Funds	
		Gifts	Other
<u>Non-Academic Facilities (Non-Medical) - Continued</u>			
Parking:			
Garage - 32nd Street	500,000	-	500,000
Garage - 38th and Walnut Streets	800,000	-	800,000
Administration and General Services Building	4,000,000	225,000	3,775,000
Student Oriented Commercial Area	1,500,000	-	1,500,000
Center for Performing Arts	1,000,000	1,000,000	-
Utilities - Electric Sub-station	100,000	100,000	-
Landscaping:			
College Hall Block	150,000	150,000	-
Botanical Gardens	150,000	150,000	-
	<u>\$50,300,000</u>	<u>\$25,500,000</u>	<u>\$24,800,000</u>

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III. Medical Facilities

School of Medicine:			
Clinical Sciences Building	\$18,000,000	\$7,600,000	\$10,400,000
Renovations to Medical Laboratories	1,900,000	950,000	950,000
Dental School Renovations	2,000,000	1,000,000	1,000,000
School of Nursing Building	1,575,000	1,575,000	-
Veterinary School:			
Research Tower	2,750,000	250,000	2,500,000
New Bolton Center	1,075,000	1,075,000	-
Graduate Hospital Renovation and Expansion	5,000,000	3,000,000	2,000,000
University Hospital - New Patient Wards	6,000,000	3,500,000	2,500,000
	<u>\$38,300,000</u>	<u>\$18,950,000</u>	<u>\$19,350,000</u>

IV. Endowment

For support of faculty salaries, professorships, scholarships and loans	<u>\$40,000,000</u>	<u>\$40,000,000</u>	-
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S U M M A R Y

	Total Funds Required	Sources of Funds	
		Gifts	Other
Academic Facilities (Non-Medical)	\$41,375,000	\$16,850,000	\$24,525,000
Non-Academic Facilities (Non-Medical)	50,300,000	25,500,000	24,800,000
Medical Facilities	38,300,000	18,950,000	19,350,000
Endowment	<u>40,000,000</u>	<u>40,000,000</u>	<u>-</u>
	<u>\$169,975,000</u>	<u>\$101,300,000</u>	<u>\$68,675,000</u>

COMPARATIVE STATEMENT OF CURRENT INCOME AND CURRENT EXPENDITURES

FOR THE YEARS 1961-62 AND 1969-70

	<u>1961-62</u>		<u>1969-70</u>		<u>Increase over 1961-62</u>	
	<u>Amount</u>	<u>Per Cent</u>	<u>Amount</u>	<u>Per Cent</u>	<u>Amount</u>	<u>Per Cent</u>
<b>CURRENT INCOME:</b>						
Tuition and fees	\$16,423,091	26.4	\$34,400,000	29.2	\$17,976,909	109
Endowment income	3,489,887	5.6	6,300,000	5.4	2,810,113	81
State appropriation	6,418,712	10.3	14,100,000	12.0	7,681,288	122
U. S. Government	13,801,000	22.2	24,600,000	20.9	10,799,000	78
Gifts and grants	4,870,389	7.9	7,100,000	6.0	2,229,611	46
Auxiliary enterprises	4,038,000	6.5	9,000,000	7.6	4,962,000	123
Other	<u>13,084,660</u>	<u>21.1</u>	<u>22,200,000</u>	<u>18.9</u>	<u>9,115,340</u>	<u>70</u>
	62,125,739	<u>100.0</u>	117,700,000	<u>100.0</u>	55,574,261	90
Overhead reimbursement and departmental credits	<u>3,057,770</u>	-	<u>7,000,000</u>	-	<u>3,942,230</u>	<u>129</u>
	<u>\$65,183,509</u>		<u>\$124,700,000</u>		<u>\$59,516,491</u>	<u>91</u>
<b>CURRENT EXPENDITURES:</b>						
Administration and general expense	\$6,282,000	9.6	\$9,400,000	7.4	\$3,118,000	50
Instruction	17,210,000	26.3	36,375,000	28.9	19,165,000	111
Organized activities (hospitals, clinics, etc.)	14,985,000	22.9	25,300,000	20.0	10,315,000	69
Organized research	14,003,000	21.4	26,000,000	20.6	11,997,000	86
Libraries	1,309,000	2.0	2,500,000	2.0	1,191,000	91
Maintenance and operation of plant	3,337,000	5.1	7,350,000	5.8	4,013,000	120
Auxiliary enterprises	4,188,000	6.4	9,300,000	7.4	5,112,000	122
Student aid	<u>4,122,000</u>	<u>6.3</u>	<u>10,000,000</u>	<u>7.9</u>	<u>5,878,000</u>	<u>143</u>
	<u>\$65,436,000</u>	<u>100.0</u>	<u>\$126,225,000</u>	<u>100.0</u>	<u>\$60,789,000</u>	<u>93</u>
Operating deficit	<u>\$252,491</u>		<u>\$1,525,000</u>			

- 1 EVANS INSTITUTE (*Dental School*)
- 2 FELS INSTITUTE OF LOCAL & STATE GOVERNMENT
- 3 PRESIDENT'S HOUSE
- 4 CHAPLAIN'S HOUSE
- 5 ALLIED MEDICAL PROFESSIONS
- 6 VETERINARY SCHOOL AND HOSPITAL
- 7 HILLEL FOUNDATION (*University Associated*)
- 8 SKINNER HALL (*Faculty Club*)
- 9 CHRISTIAN ASSOCIATION (*University Associated*)
- 10 FRATERNITY HOUSES
- 11 NEWMAN CLUB (*University Associated; Original Replaced by 81*)
- 12 DIETRICH HALL (*Wharton School*)
- 13 WISTAR INSTITUTE (*University Associated*)
- 14 SCHOOLS OF MEDICINE
- 15 ALFRED NEWTON RICHARDS MEDICAL RESEARCH BUILDING
- 16 MEN'S DORMITORIES
- 17 ENGLISH HOUSE
- 18 PEPPER, ROBERTS, AND STERN DORMITORIES AND COMMONS
- 19 LAW SCHOOL
- 20 POTTER (*replaced by 87*)
- 21 SERGEANT HALL (*see 88*)
- 22 COLLEGE HALL
- 23 NEW SCHOOL OF FINE ARTS (*former Library; see 30, 40*)
- 24 IRVINE AUDITORIUM
- 25 HOUSTON HALL
- 26 HARE BUILDING (*replaced by 86*)
- 27 LOGAN HALL
- 28 KINGSCOURT
- 29 BLANCHARD HALL (*replaced by 72*)
- 30 CHARLES PATTERSON VAN PELT LIBRARY (*University Library*)
- 31 BENNETT HALL
- 32 FINANCIAL OFFICES (*replaced by 89*)
- 33 MOORE SCHOOL AND ADDITION
- 34 TOWNE BUILDING
- 35 DEVELOPMENT OFFICES (*replaced by 75; see 73*)
- 36 JOHN MORGAN BUILDING (*replaced by 75*)
- 37 GENERAL LABORATORIES BUILDING (*replaced by 90*)
- 38 CHEMISTRY LABORATORY
- 39 PHYSICAL SCIENCES BUILDING
- 40 EXISTING SCHOOL OF FINE ARTS (*replaced by 91; see 23*)
- 41 DECATUR HALL (*replaced by 93*)
- 42 TANDEM ACCELERATOR
- 43 PALESTRA
- 44 THOMAS B.K. RINGE SQUASH COURTS
- 45 HUTCHINSON GYMNASIUM
- 46 WEIGHTMAN HALL
- 47 FRANKLIN FIELD
- 48 UNIVERSITY MUSEUM
- 49 WOMEN'S RESIDENCE HALLS
- 50 UNIVERSITY HOSPITAL
- 51 RAYDIN INSTITUTE (*University Hospital*)
- 52 TENNIS COURTS
- 53 NEW BIOLOGY BUILDING
- 54 ZOOLOGICAL LABORATORIES
- 55 GREENHOUSES
- 56 UNIVERSITY MAINTENANCE & REPAIR (*replaced by 72*)
- 57 THE WHITE HOUSE
- 58 ANNENBERG SCHOOL OF COMMUNICATIONS
- 59 VICTORIA APARTMENTS (*replaced by 81*)
- 60 ILLMAN CARTER (*replaced by 78*)
- 61 BIOLOGICAL ABSTRACTS
- 62 MEN'S RESIDENCE HALLS
- 63 HAROLD C. MAYER GRADUATE APARTMENTS
- 64 VETERINARY SCHOOL EXPANSION
- 65 SOCIAL SCIENCES CENTER
- 66 MEN'S RESIDENCE HALL
- 67 PHYSICAL SCIENCES BUILDING ADDITION (*see also 93*)
- 68 ACADEMIC FACILITY
- 69 MEDICAL AFFAIRS EXPANSION
- 70 MEDICAL AFFAIRS EXPANSION
- 71 LAW SCHOOL ADDITION
- 72 DANIEL W. DIETRICH MEMORIAL LIBRARY (*University Library*)
- 73 ADMINISTRATION (*see also 73*)
- 74 ACADEMIC FACILITIES (*Graduate, Professional, Research*)
- 75 HUMANITIES - PHYSICAL SCIENCES BUILDING
- 76 LABORATORY FOR RESEARCH ON THE STRUCTURE OF MATTER
- 77 EVANS INSTITUTE EXPANSION (*Dental School*)
- 78 MEN'S RESIDENCE HALLS
- 79 GRADUATE HOUSING CENTER
- 80 ALUMNI CENTER
- 81 SOCIAL SCIENCES EXPANSION
- 82 ACADEMIC FACILITIES (*Graduate, Professional, Research*)
- 83 SKINNER HALL EXPANSION (*Faculty Club*)
- 84 WISTAR INSTITUTE EXPANSION (*University Associated*)
- 85 MEDICAL AFFAIRS EXPANSION
- 86 HUMANITIES EXPANSION
- 87 ACADEMIC FACILITIES (*Graduate, Professional, Research*)
- 88 WOMEN'S RESIDENCE HALLS
- 89 MOORE SCHOOL EXPANSION
- 90 CHEMISTRY EXPANSION
- 91 PHYSICAL SCIENCES & ENGINEERING
- 92 PHYSICAL SCIENCES RESEARCH (*Particle Physics Laboratory*)
- 93 PHYSICAL SCIENCES FACILITY
- 94 ATHLETIC FACILITIES
- 95 ATHLETIC FIELDS
- 96 UNIVERSITY MUSEUM EXPANSION
- 97 SCHOOLS OF MEDICINE AND UNIVERSITY HOSPITAL DEVELOPMENT
- 98 ACADEMIC FACILITIES (*Graduate, Professional, Research*)
- 99 ST. MARY'S CHURCH
- 100 FREE LIBRARY OF PHILADELPHIA
- 101 PARKING GARAGE
- 102 PHYSICAL SCIENCES (*Research Offices*)
- 103 PHYSICAL SCIENCES-ACADEMIC-ATHLETIC FACILITIES
- 104 BOTANICAL GARDEN
- 105 RIVER FIELDS (*Partially shown*)