

The

SCULVE

Report

Authored, compiled and edited by:

Richard A. Clarke

William Keller, Chairman

Stephen J. Marmon

Also contributing:

Philip Berwick

Harold Brody

John Caruso

William Tortu

Approved unanimously by SCUE: April, 1971

STUDENT COMMITTEE ON UNDERGRADUATE EDUCATION

UNIVERSITY OF PENNSYLVANIA

I. Introduction	1
II. Admissions	2
III. Freshman Education	3
IV. Educational Opportunities	4
a. Residential Education	4
b. Thematic Learning Centers	4
c. Intensified Major	5
d. Education-Employment Option	5
e. Midyear Research Period	5
f. Satellite Campuses	6
v. Faculty	6
a. Tenure	6
b. Teaching Load	7
c. Organization	7
VI. Summary of Recommendations	11

INTRODUCTION

Prologue: A Parable

Once upon a time there was a young man who had come into some property, which included some beautiful, but as yet uncultivated lands. In order for his estate to become as valuable as it could, the man decided to buy a mule, so that he might till the rich soils. One day, he came upon a man who had a mule for sale. The man assured our friend that the mule was perfectly compliant, a hard worker, and would never have to be beaten. The deal was made, the mule taken home. As soon as the mule saw the huge amount of work before it, however, it refused to work, and just stood around chewing his cud (if mules do, in fact, have cuds). Our friend, very annoyed, hurried back to the man who had just sold him the mule, and demanded his money back. The man, however, said that he would make the mule start working, and they returned to the estate. The man then took a log, and bashed the mule over the head. Sure enough, the mule began to work. "What's the story here?" asked our friend, "I thought that you said the mule never has to be beaten." "He doesn't," replied the other man, "all you have to do is attract his attention."

That parable was the epilogue to the report issued five years ago this month by the Student Committee on Undergraduate Education. Since then SCUE and many others have been trying to attract the attention of the members of the University community so that meaningful reform may be made in undergraduate education at the University.

The SCUE Report of 1966 did not have as much impact as hitting a mule over the head with a log. Rather it began a process still going on, one in which many changes, major and minor, have come about on the campus of Pennsylvania. It is a process that has brought about adoption of many specific ideas presented five years ago, but it has also failed to capture the spirit of that report. (For that report proposed a new atmosphere of education here: a climate of intellectual ferment and experimentation, of educational excitement and development, of a search for knowledge that is not continually obstructed by an amorphous bureaucracy.)

Since that time we have succeeded in loosening the stranglehold that the various anachronistic and often picayune regulations have placed upon students at the University. But although we have opened more lanes, undergraduates here still must travel the same old rigid road toward graduation, a pathway that is rigidly defined. In half a decade we have made numerous attempts to prop up a system without questioning the structure itself. We have pressed for reform, when major surgery is what is needed.

Private universities in America are now posed on the brink of bankruptcy. The ambitious plans that Pennsylvania had just a few years ago, from the creation of the house system to the expansion of financial aid, have all vanished into red ink. With no end to the financial difficulties in sight, we must begin to define what it really is we exist for as an institution. We must define our goals and formulate realistic plans for their achievement.

As more and more students attend institutions of higher education, and as public institutions assume a larger role in that process, it becomes incumbent upon the private university to justify its existence, its uniqueness. If we are to survive we must excel in the forms of education we choose to offer and the way in which we choose to offer them.

Private universities depend upon the philanthropy of its

friends and the willingness of their students to pay higher costs for their offerings. But if Pennsylvania does not differentiate its offerings from those of the public institutions, it will soon find itself without financial support. We can not expect students or potential private donors to underwrite the lifeless duplication of public education.

(If Pennsylvania is to remain competitive in the educational market, it must finally make undergraduate education the core of the University.) Moreover, it must also decide that the arts and sciences are the heart of undergraduate education, not just the first in an alphabetical list.)

Regrettably, undergraduate education at Pennsylvania has been the exploited step child of a basically graduate campus. The education of undergraduates has failed, except as a source of revenue. The University has not provided its undergraduates with options, advising or faculty that could have made Pennsylvania a vital institution. Undergraduates are offered little freedom in pursuit of their degrees, despite all our current claims of experimentation. (Though it seems inconceivable, the advising system is worse now than it was when our 1966 Report labeled it "meaningless.") Our senior faculty does not teach our undergraduates, but rather spend their few teaching hours with small, esoteric graduate seminars.

SCUE therefore recommends the rejuvenation of undergraduate education at the University. We propose a new concept of education, one that would provide undergraduates with a wide spectrum of educational opportunities. Rather than one specific means of satisfying the requirements for a degree, we propose that there be many alternatives and that each student be free to pick that path that he or she most desires.

Under this system a student might satisfy the degree requirements in a manner similar to the traditional system now in effect, or he might wish to participate in a residential college program. Others might choose the concept of an educational employment option as the core of his education; while still others could participate in an intensified major. These represent only a few of the pathways to the degree. Hopefully students and faculty will develop other ways as well.

(If this concept of options in undergraduate education is to be established we must provide an advising system that will guide a student into the educational program best for him.)

Our faculty must be disabused of the notion that teaching is a burdensome task to be shouldered only by junior faculty members, (and the tenure system cannot continue to discourage faculty interest and excellence in teaching.) The faculty must be organized in a manner that reflects a primary and principal concern with undergraduate education.

The report that follows attempts to set forth a framework for educational innovation. We have dealt with specific proposals for educational reform. We have offered suggestions for changes in admissions and reforms in the faculty. We consider each of these recommendations to be necessary prerequisites to deep rooted change.

This report is neither comprehensive nor final. We intend to issue future reports in more detail, and we encourage others to supplement this report with their own comments and suggestions.

The time has come to bring about radical innovative change. This time, unlike the parable of the mule, student perception of the crisis in undergraduate education is so acute that the attention of the University has already been attracted. Now it is time to act.

ADMISSIONS

Largest of the Ivies and among them the least attractive to high school seniors, the University of Pennsylvania plans to admit a freshman class this spring that may reach a new high of 1900 students. In choosing previous smaller classes, the admissions office has had to admit more than double the number of desired students in order to enroll a freshman class of the authorized size. Included in the group of students accepted at Penn who enroll elsewhere are two-thirds of our best acceptances—those admitted on the basis of high academic achievement alone. In past years approximately 40% of all students applying for admission have been offered a place in the class. The admissions staff faces its task this year in the face of the decline in board scores of the two previous classes and with the knowledge that the pool of applicants from which they may choose the largest class in Pennsylvania in history is down about 12.5% in size over last year.

Within the past year the faculty has noticed the decline in the quality of our last two freshman classes; indeed, they have thrown themselves upon this issue as so many Dutch boys at the dike. In so doing they may have failed to see the real causal factors, for the difficulty in admissions is only an effect. Nevertheless, changes in our admissions procedure are coming, and we do welcome some of them.

Pennsylvania must realize that it can not both insist upon operating all of its current undergraduate programs at larger and larger levels and continue to admit freshman classes with high academic profiles. If the University truly wishes to remain among the handful of institutions of excellence, realistic efforts should begin now to reduce the size of the freshman class to a range of 1700, for size in itself has become a contributing factor in educational mediocrity. Most students, but especially the brighter students with choice and access to the finer liberal arts colleges, are repelled by massive institutions even if the schools do have the facilities to match their size. There is a tendency among these high school students to judge, and we think rightly so, that a meaningful and involving educational experience is prohibited in the megaversity. For in quality education there is such a thing as critical mass, but unlike in nuclear physics, the passage of critical mass does not produce a bigger bang, just a duller thud.

We are, however, in general accord with the desires of the University Council's Committee on Admissions and Financial Aid to raise the academic indicators of our entering classes and to assist in that effort by establishing faculty-student recruitment teams to represent the various areas of academic work at Pennsylvania to those select secondary schools that annually produce large proportions of the nation's better scholars. We would caution the admissions committee, though, that recruitment alone will not greatly improve quality unless the University offers educational programs commensurate with the qualifications of the people whom we hope to attract.

Increasing our reliance upon academic indicators could result in several undesirable situations:

First, we oppose any proposal that a majority of admissions be based solely upon academic credentials. The simultaneous enlargement of the freshman class and reduction of the scholarship budget will have an unfortunate homogenizing effect on the student body. The administration is moving backwards in time to the age when Pennsylvania was a school for the rich but dull students from New England prep schools and from the high schools of a few wealthy eastern suburbs. If concurrently with these actions academic indicators are given a stronger weight, then what little margin for a diverse class there exists within the above scheme would effectively disappear.

Second, additional recruiting effort should not mean a lessening of our already extensive efforts to recruit high school students from culturally deprived areas of our nation. In that

regard we support the spirit of the University Council resolution of October, 1970.

Third, so long as the Commonwealth of Pennsylvania continues to be a significant source of operating revenue, our admissions policy must allow for a 35-40% Commonwealth enrollment. In as much as Pennsylvania has no foreseeable plans to operate without Commonwealth funds, we should move toward more innovative programs to bring the very best Commonwealth students to Pennsylvania.

We note that the University has a long record of providing services for secondary education in Philadelphia. Its world-famous museum, its libraries and student teachers have long been a part of secondary education in the Philadelphia School District. More recently, Pennsylvania has opened its classrooms, laboratories and gymnasium to local high school students, especially through the University-affiliated Free School project. More can be done in all of these areas.

Recently Commonwealth Education Secretary David Kertzman suggested that the state would greatly benefit by adopting a program that has brought Philadelphia to the attention of all secondary school educators interested in humanizing and innovating in the high school. The Secretary suggested that the Commonwealth start its own Parkway School modeled after the successful one-year "high school without walls" that allows Philadelphia students to take advantage of the educational, cultural and commercial institutions in the city. Specifically Kertzman proposed a one-year program located in Philadelphia, but drawing on the best students that the Commonwealth has to offer. The University should encourage and sponsor such a program.

The project, which could be housed on campus, would allow students from every corner of the state, rural and urban, to draw on the rich resources of the Commonwealth's largest city. It would also give perhaps 100 of the brightest students each year an opportunity to see and feel a University in operation, thereby minimizing the cultural shock that overcomes many students upon arriving on a campus.

To the University the program would offer many advantages. The students would be the best in the state and might be more easily recruited here after spending five or ten months on campus. The 100 high schoolers would also generate income through the use of our dormitory and cafeteria facilities and by providing jobs for student counselors and advisors.

We can think of no better place to locate such an innovative facility. Pennsylvania is uniquely located, not far from the major institutions such a project would draw upon. In addition the University offers excellent housing, health, security and cultural facilities. Both the University and the Commonwealth would benefit from the establishment of such a program for the high school students of Pennsylvania.

Fourth, in admissions, within Pennsylvania as well as without, higher education is a marketplace, and if programs do not attract student interest, serious thought should be given to phased reduction and attrition. There should be, however, a study period of two or three years to determine which departments will have their programs reduced due to lack of student interest. We stress that the University should not maintain an artificial balance among majors by flying in the face of obvious student interests. The use of bonus points on the basis of potential major should not be allowed significantly to reduce the academic quality of those admitted, nor should it be used as a crutch to support programs of minimal utility and quality.

In the end, however, the best way to improve one's applicants is to improve one's self. This is not just a supposition; one need only look at Brown, an Ivy League institution that has gone through an educational renaissance, to see that improvements in teaching can mean improvements in applicants. Similarly,

the educational stagnation that has occurred at Pennsylvania reaches back to the better high schools, to the counselors and to the students who more and more know how to ask the telling questions. We at Pennsylvania must address ourselves to teaching techniques. That, however, takes admitting our mistakes as an institution, something that our faculty has been unwilling to do.

FRESHMAN EDUCATION

If the faculty becomes willing to admit the mistakes inherent in its current teaching style and begin corrective programs, then we will find that the future entering classes will fulfill the promise of this institution. When those freshmen arrive on campus they must not be confronted by the stifling program that now characterizes the freshman year at Pennsylvania and takes away so much of the intellectual fervor and educational hope of our new students each fall.

Incoming students are now faced with a maze of large, unrelated introductory courses, in which their closest contact with a faculty member is often the distance from a back row of the Museum Auditorium to the podium in the distance. Freshmen have little concept of the programs and possibilities even currently available at Pennsylvania and often fall haphazardly into a course on the basis of hearsay and convenience. And, more so than most students, freshmen find their choices for classes overridden by a computer and three years of upper class preference.

Starting last year, a member of the Student Committee on Undergraduate Education spent full time during the summer, advising incoming freshmen as a member of the College staff, getting them into courses and arranging tangled schedules. This helpful program continues this year in the College, but the other schools will again lack the presence of a student advisor for incoming freshmen. We recommend that a pre-freshman advising office staffed by students be established in every academic division. All freshmen should be informed of the existence of the advisory program immediately upon decision to matriculate, as is done in the College currently. In this way the quarter of the class that is accepted in the early decision program would be entirely processed during upperclass preregistration in April.

When students arrive on campus, most of their course work will be introductory. This would be perfectly acceptable if these courses were not little more than a continuation of high school trivia, taught by a bored faculty member who wrote the boring lectures five years ago, when he was so unfortunate as to be rotated into the introductory courses. These uninspired classes, most of which make no attempt to relate to the ideas and concepts of other departments, are usually little assisted by the presence of graduate teaching fellows who seem to be selected either with no regard or, in inverse proportion to their teaching ability.

Some of the University's departments have been able to break away from the insipid mold that is now the standard and offer an exciting, involving introductory course taught by a member of the faculty in a reasonable sized class. When the SCUE recommendation of 1966 that freshman English requirements be dropped was finally accepted by the College faculty, that department was forced to devise introductory seminars on a variety of student suggested topics. Those voluntary classes now attract almost as many students as were previously forced to enroll in freshman English.

Nevertheless, the English department continues the intolerable practice of maintaining what is practically a graduate

faculty of full professors. We recommend that the English department and all others employ their highly paid professorial ranked instructors in introductory courses. The Economics Department has found this practice not only gives the student the best grounding possible; it allows the introductory student to get a sense of the more advanced work in the field. Advanced students would be better prepared to work in specialized areas if they acquired a thorough knowledge of the principles of a discipline.

One path that will not improve the quality of undergraduate education is the path of enlarging or abolishing recitation sections. Unfortunately the anthropology department, to cite one example, has annually reduced its number of recitation sections to a point where they have become hopelessly large and meaningless. Other introductory courses, such as psychology, do not offer sections at all. We propose a commitment to these courses both in terms of teaching time and funds, to ensure that introductory courses are taught by our better faculty, on a rotating basis if possible. Indeed, if necessary, additional teaching load credit might be given for conducting freshman courses. In addition, rigorous introductory seminar courses should be offered for the prospective majors in the department.

In addition to improving the quality of introductory course matter, we suggest an analysis of its content. The absence of interdisciplinary courses on this campus is one of the most regrettable deficiencies in the undergraduate curriculum. We recommend the establishment of three interdisciplinary seminars, introducing the student to the basic concepts, history and current work in the social sciences, the physical or life sciences and the humanities. The seminars would serve in partial completion of one's distributional requirements. Limited to a dozen students, these seminars would be moderated and coordinated by an upper-classman who would receive a credit unit in his major. We recommend that each freshman enroll in at least two of these seminars during his first year.

There is a need for a major reappraisal of the entire grading system, which as it now stands, is satisfactory to very few and meaningful to virtually none. SCUE will issue a report in the near future covering the entire University grading system and proposed changes. One proposal, however, is already obvious: We recommend that all courses in the freshman year be offered on a satisfactory/ no credit basis. Such a plan would help to eliminate the large number of serious emotional problems that are befalling freshmen in their first year. Many students need a period to adjust to the style of the University, since for many the movement to the campus is the greatest cultural shock in their lives.

The use of a first year satisfactory/ no credit system would permit the freshman to learn basic materials in his introductory courses, rather than having to compete for good first grades to show parents. Such a system would cause little trouble for those students who later apply to graduate and professional schools since those schools rarely consider the work done in the first year. For those students who wish to take advanced courses they may select to take a grade. In addition, freshman taking courses in their prospective major should also receive a written analysis of their work from their instructor, in order to assist the determination of departmental honors.

We recommend that for all freshmen not in resident colleges, houses should be used to provide programs of intellectual as well as social activities. Such program could range from dinners and coffee hours with faculty, to performing activities or academic-oriented simulations. Obviously such activities are currently hampered by the wretched condition of the old Quad. The Development Office should make renovation of the Quad a high priority fund-raising activity, so that traditional housing center might also serve academic purposes.

All of these and other changes in the first year might well be in vain if the advising system continues as it is today.

University offers hundreds of courses and hopefully it will soon be adding scores more designed by students with their faculty, but few upperclassmen and virtually no freshmen know what they might be missing even today. Independent study, directed reading, independent major and junior year abroad are all excellent but under-utilized programs; under-utilized because there is no central advising office or authority concerned with their promotion. We must put an end to the current system that is based upon gossip, the advice of one's roommates and the meager outline of the catalogue.

We recommend the adoption of advising seminars for all freshmen. These seminars would be staffed by upperclass students on a work/ study basis. The seminars might meet once a week for two evening hours during the first ten weeks of one's freshman year. These small seminars would provide information on the types of programs and courses available and would give the background information needed to hurdle administrative roadblocks.

To provide resource material for these seminars, we recommend the establishment of freshman academic counseling offices in both the Quad and Hill Hall. The academic counseling offices would offer syllabi of courses, descriptions of major programs and outlines of the various educational opportunities offered students as ways to achieve the degree. These offices would continue in operation throughout the year, providing information for freshmen even after the advising seminars had ended.

The various school offices, with the notable exception of the College for Women, now offer advising that is mainly "problem-oriented," dealing with such questions as transfers, leaves of absence, withdrawals and rule exemptions. There is a need for such a service, but we should also have the ability to provide serious academic counseling. The solution of freshman counseling problems will minimize the need for upperclass advising, which today operates well only occasionally and only in the majors. The Central Advising Office suggested above should be a directory where a student could choose the ways in which he might learn. First, we must open new ways for him to choose.

EDUCATIONAL OPPORTUNITIES

Introduction

It has become trite to say a student can learn in many ways, but at Pennsylvania virtually every student follows a four year diet of lectures, recitations, occasional seminars, and rarely directed readings and individual research. There is no reason to continue this monotonous tradition of fixed hours and procedures. There is, however, great cause to add variety to the baccalaureate process, for many students and faculty have come to realize that it is Pennsylvania's unreasoning continuance of the traditional procedures that has caused the lethargy in the classrooms, the spiraling dropout and transfer rate, and the ever increasing number of students requesting semesters off.

We shall in this section attempt to outline a half dozen innovative additions to undergraduate learning styles. These are hardly all of the suggestions that are current among the numerous groups of students organizing to revitalize undergraduate education. All of these proposals are of such a nature that they could be implemented within a year of their acceptance by the administration and faculty. None of the programs requires massive funding; all could be supported by readjustments of the current budget.

At Pennsylvania, choice should be the keystone. No student need be told how he is to go about achieving his bachelor's degree. The University should provide a program of un-

dergraduate learning whose styles matches the needs of individual student. Unlike other institutions that force a single style upon their students, whether it be tutorials or ungraded courses or unstructured learning, Pennsylvania is large enough and diverse enough to allow for a variety of means to tap the resources of a great urban center of graduate and professional study. In the near future the Bulletin should begin:

"At the University of Pennsylvania there are many roads to the diploma . . ."

Residential Education

The most recent and perhaps the most widespread of student coalitions to breathe life into undergraduate education have been the numerous attempts at organizing residential learning programs. As this report is going to the press several formal plans co-authored by faculty and student groups have been presented to the President.

The work of these groups demonstrates that the problems of creating small integral facilities in the existing residences for in-house instruction are hardly insurmountable. The relocation of walls can turn a cell-block-like barracks into a full time learning center complete with lounges, libraries, seminar rooms and suites for resident faculty.

The creation of these houses offers a hope that the current custom of hour long sedentary sessions with thirty unknown and unspeaking comrades will soon cease. The houses will provide a medium wherein students can learn from each other and draw upon the total resources of the group. Students will come to know each other as colleagues in the search for knowledge and may even feel a sense of belonging to their university.

The maximum variance should be permitted in the structuring of these residential units. For those students who so desire there should be a full semester's offering in the residence. Such programs would probably best be freshman houses or units organized around major areas, not unlike the non-residential thematic learning centers we shall discuss later.

More often than not, we imagine, the houses will serve the student for one or two courses, which would probably be seminars or joint research projects. The students involved in these projects should have the significant role in determining the course content and evaluation methods.

There is an unlimited number of facilities that lend themselves to structuring as residential educational center; Hill Hall, all of the Men's Quad, the new low-rises, fraternity houses, and the floors of the high-rises. Admittedly the physical changes in the residences and the elimination of revenue producing rooms would add to the cost of these programs. Nevertheless, given the current state of profit-loss building operations, there seems little reason to attempt to maintain a more reasonable balance sheet at the additional cost of proscribing educational opportunities.

Residential education, as with most of the proposals we shall outline in this section, must be facilitated and coordinated in a centralized office.

Thematic Learning Centers

There will be, of course, many students who see little or no value in living in a residential education center. We must recognize the equal validity of other life styles, and the traditional desire of many Pennsylvania students to live off campus. For students not wanting residential colleges, as well as for those programs not especially suited for colleges, we recommend the establishment of campus Thematic Learning Centers.

For the student who knows what his interest is and wishes to obtain an expanded expertise in his field, the University should offer a series of non-residential educational and learning cen-

developed on conventional themes. The newly opened MBA House provides us with the closest analogy. It is a renovated fraternity house providing MBA students with an on-campus facility to study, eat, drink or meet with like-minded students.

Undergraduate houses would provide students with a locus for their educational identity, an intangible but highly valuable concept. The houses might provide a series of regular dinners with university and community experts in their fields and professions, quiet places to study, small libraries of esoteric periodicals, and booklets, rooms for like-minded students to engage in animated and free discussions about academically related subjects. More importantly, these houses would also provide residences for young faculty and graduate students in the field, thereby reducing the problems of finding a friendly and knowledgeable advisor.

Although the University does own many such fraternity houses currently, we realize there would be costs involved in renovating the facilities and losses derived from reduced rent. At the same time, we would point out that those few students now renting the facilities would probably transfer to unused space in the new University housing, thereby increasing rental income. Additionally costs might be reduced by charging nominal use fees and drawing on the budgets of student activities in the fields.

Initially we propose that such facilities be established in the areas of Urban Studies, Pre-Law, International Relations, Pre-Med, and the various Foreign Languages (to be divided along specific lines).

The Intensified Major

These thematic learning centers may also provide a physical base for those exceptionally motivated freshmen who know in their first year the field of academic endeavor in which they wish to work. Admittedly, there are few such students, and many who think they know what they want to do are dissuaded of that belief by their junior year. Would it not be better for even those students to be disabused of their misconceptions earlier, before they have wasted time in a vain attempt to become a doctor? For those students who correctly believed that they knew what they wanted to do and were willing to forego the usual non-directed liberal background, the intensified major would have provided a unique opportunity to know well an area of human knowledge, perhaps even to design and begin their own serious research.

To implement the proposal we suggest the formation of a new student-faculty panel. We recognize the similarity of purpose with the Committee on Individualized Majors, but that committee serves another purpose and often creates red tape for the students, discouraging them from an individualized major. We decry that tendency and propose that an additional Committee on Intensified Majors be formed to act as a facilitating agent for creativity, not as a roadblock against imagination. The new committee would be granted the additional power of waiving distributional requirements for those students who qualify for the intensified major. The committee would be responsible for soliciting and selecting students for the intensified major program early in the freshman year. The student and his advisor would then design a curriculum with the faculty advisor

establishing what distributionals, if any, were appropriate for the student. For the political science majors certain math, language and computer courses might be required in addition to the normal related material. The physicists might be required to take courses in philosophy, history of science, and landscape architecture.

The student would also be assigned to a faculty tutor for introductory directed readings. To complement the individual work all the intensified majors might share a seminar team

taught by the members of the department and coordinated by a junior faculty member or graduate student.

By the end of his third semester, devoting slightly more than half his course load to his chosen major, the student would have completed the normal course load requirements in a major. He might then begin to design his research work with the help of his chosen faculty advisor. Obviously, the student could withdraw from the program at any step along the way, but for those who remain and demonstrate competence, there might well be admission to a Ph.D. program after the third year.

We would not advocate this plan for all students; indeed, we would probably not advise any specific individual to use it and forego the searching and free thought of the undergraduate experience. However, as an institution, we should not delay students seeking intensive work in any academic discipline.

Education - Employment Option

Yet another path to the Pennsylvania degree should be a program of education-employment option. Though this program would be particularly suitable for undergraduate business and engineering students, it could be elected by any student.

The option of Education-Employment provides the student with practical working experience in his or her areas of interest. The program would provide a unique opportunity to fully use the resources available in the ranks of Pennsylvania's alumni. A Wharton student would, for instance, be able to combine his theoretical knowledge gained through his courses with the practical experience gained through his work.

The program would further give the student the opportunity to combat the growing undergraduate malaise that has resulted in the skyrocketing rate of leaves of absence. The student's work period would be an excellent opportunity to receive credit while doing work relating to their academic endeavors but differing in style from their normal academic pursuits.

The first year of study would remain essentially the same (see Freshman Education section); students would begin their first work period in either the fall or spring of their sophomore year. A total of four semesters of work should be included in the Education-Employment Option. A student should receive two units of credit for each work period, based upon a report or diary of his or her work experience. Other credits might be made up during the summer school or a fifth year. The key to this Education-Employment Option should be a recruitment of job opportunities from alumni. Students and alumni would gain valuable experience from this interaction.

In addition, internship programs should be solicited from various governmental and private institutions. Students should again receive credits per semester for work. These programs should be administered by the Vice Provost for Undergraduate Education.

Midyear Individual Research Program

There is a need to strike a balance between learning experiences with the student as the receiver, the typical Pennsylvania model, and innovative experiences that involve the student as a real participant. Simulated environments and endless hours of secondary research in the finest libraries can not substitute for participatory learning in the field, for no learning experience is as meaningful as one which the student helps to design and then test in the environment beyond the classroom. Involvement in the processes, dealing with new and unstructured environments and perhaps even sensing failure are all necessary but now absent elements of higher education.

We propose a program that would include in every student's college experience an academically related program of in-

dividual research that would involve the student in forms of learning otherwise impossible in the crowded schedule and closed environment of the University community. Specifically we suggest that every student at the University have the opportunity to complete two units of individual research conducted during two periods when other class work is suspended.

Students would select a field of interest for their research during October and would be assigned to a faculty member to assist in the formal design of the project during the Fall semester. Symposia would be held during the October period to acquaint students with the types of projects that might be done in conjunction with the various departments in the hope that some students would use this opportunity to investigate areas of study unrelated to their major work. The Advising Office would make available some broad possible areas for activity, and would also serve as a routing office for students unfamiliar with the faculty in the area of their interest. By Mid-November each student participating in the program would be required to submit a formal research design to a faculty assistant for approval. Upon the approval of the faculty member the school office would be notified of the student's participation in the program.

The calendar adjustments necessary to implement the Midyear Individual Research Program would be minimal. The four week period between the end of Fall final exams and the start of spring classes would be extended one week, giving participating students a five week period for the actual conduct of their research. Since final examinations would have been completed and new courses not yet begun, the student could devote full time to his research project and could conceivably complete his work in a lesser period. Such an adjustment would necessitate moving spring final exams and spring vacation one week back. Thus then the second term would not formally end until the third week of May.

The research project would be due during the third week in February, following the closing of spring Drop and Add. If the student completed his work satisfactorily, he would be given one credit unit, and optionally, a letter grade.

The cost of such a program would also be minimal. No new faculty would be required, although some additional clerical help might be needed temporarily to assist the school and Registrar offices. Students would be limited to participating in the program twice, thereby reducing the likelihood that the additional credit units would enable significant numbers to graduate early. Some added costs would be incurred to compensate the faculty at satellite campuses during the research period. However, if arrangements could be made with host institutions vacationing during the research period, housing and office costs might be significantly reduced. It is our estimate that during the first few years of the Mid-year Research Program costs, including small satellite operation, would not exceed \$25,000 a year. It need hardly be said that the advantages gained by the students and faculty participating would certainly pass any cost-benefit analysis. Students at Pennsylvania would begin to become involved in their education, and students thinking of applying to the University would surely find it more attractive.

Satellite Campuses

Since much of the research work that would be done during this period would be done by students researching in the social sciences and business, the University should establish offices, the beginnings of satellite campuses, in Washington and New York. During the research period, teams of faculty would be assigned to these offices as advisors. Facilities might be established in conjunction with other schools sponsoring similar programs or at the campuses of schools in the cities involved.

school year. In such courses as International Relations, one might work at the State Department or United Nations. One might study Administrative Policy by observing a regulatory agency, or Corporate Finance, working on Wall Street; such courses could be conducted by Pennsylvania faculty, or in conjunction with the faculty of selected New York and Washington institutions.

THE FACULTY

Introduction

The most marked attitudinal differences between students and faculty at Pennsylvania regard the actual worth of the institution and the quality of the undergraduate education it provides. Most senior faculty, resting on their laurels and the reputation of the University, will insist that this institution is among the handful of excellent schools in America and that any student fortunate enough to be admitted should be relatively content with the general nature of so fine an institution.

The fact of the matter is that we are not contented. We note all about us a circumscribed education and recently signs of greater mediocrity: the slippage of our library in national rank, the deterioration of our admissions posture, and the continued increase in the size of courses and the list of closed out courses. And we also see a central cause for this deterioration, i.e., the faculty and its general complacency.

The faculty should have taken it upon themselves long ago to reorganize their schools along functional lines in keeping with the needs of their students and the times. They should have recognized the importance of teaching and the need for reduced class sizes. They should have, but they have not, and their inaction is the cause of most of the educational controversies on this campus, controversies that are growing.

Tenure

Tenure reform is probably the most controversial education issue facing the University. Tenure is the foremost protector of academic freedom and no substitute has yet been found to guarantee the political freedom of the individual teachers. But the present tenure system is also the main cause of the "publish or perish" dictum that literally destroys college teaching.

Far too many excellent teachers have lost or nearly lost their positions at Pennsylvania due to the intricacies of the tenure system. This system proports a theory that if in a six-year period a teacher has not developed a base of research that will bring pride to his department or the University, then he must leave. In short, six years and up, or six years and out.

This overriding emphasis on research in tenure decisions means that those teachers who emphasize teaching and interacting with students are given little or no credit for the work with undergraduates. In addition, those professors who are outspoken enough to cause attention to be brought to their conduct in University governance endanger their job security. And those junior faculty who spend time helping the University and the community receive no reward for their efforts. . . for research is the issue when tenure decisions are made here.

The answers to the tenure issue are not easy to delineate, especially if one accepts the seemingly contradictory obligations of the University to both preserve and advance knowledge. Perhaps a better system would involve a twenty year contract to be reviewed every five years, or perhaps older faculty in overstuffed areas could be pensioned at half pay after twenty years service. The money gained from such early

larger or more teaching-oriented professors. This issue of tenure reform is central part of the rejuvenation of undergraduate education here and SCUE will conduct a full investigation of the tenure system during the summer and early fall. A complete report will then be issued with proposals to reform the system that denies students teachers with a desire to teach.

Teaching Load

In addition to the tenure problems of the active assistant professor who has the desire to get involved with his students, there are other factors which prevent the undergraduate from finding a professor interesting in a meaningful academic relationship with his students. Primary among these roadblocks is the faculty itself.

Many professors satisfy themselves that they have given their share to undergraduates if they teach one or two classes a year. The past tradition of many professors not teaching any undergraduates has been ended by constant student criticism, although that may merely be a function of decreasing graduate enrollment. However, aside from a small body of predominantly young professors, most professors carry a weekly teaching load of under six hours. Such tokenism is the cause of greatly increased class size in popular and required courses.

Since the primary reason for admitting more freshman and transfer students is to increase University revenue, it is simultaneously necessary to reduce class size by having the existing faculty teach a more appropriate share of students in order to earn their salaries. Alternatively, the faculty might take a salary cut which would reduce the deficit and thereby allow a reduction in the aggregate number of students. A reduction in the number of students would also reduce class size, as would appointing additional faculty. The latter two plans would be optimal paths towards smaller classes, but until the fiscal crisis end it is doubtful they can be achieved.

Since salary cuts are extremely unlikely, a more realistic suggestion is increasing the workload of the faculty. In order to have a yardstick for measuring the teaching efforts of faculty, we recommend that a formula such as the following be applied.

- Tenured Faculty: 12 hours a week
- Non-Tenured: 9 hours a week
- Teaching load credit:
 - 1 hour in class or lab 1 hour
 - 3 individual research students sponsored 1 hour
 - 3 theses supervised 1 hour
 - Chairman or Undergraduate Chairman of departments 3 hours
 - Active committee appointment or other governance activity 2-4 hours

Such a formulation would almost triple the number of available faculty man-hours for teaching. The effect would be to greatly increase the number of tutorials and seminars, and to sharply increase course offerings. Class sizes would drop dramatically. The facilities exist for such an expansion of courses, especially if courses were offered at night and seminars made use of student apartments and the dozens of lounges in the high-rises.

While it is highly inappropriate to compare a faculty member's monetary remuneration to the normal forty hour work week, let us do so for purposes of clarification. If every faculty member spent one hour preparing for every hour in class (a highly unlikely probability given the nature of class discussions and the annual repetition of material), he would still have twelve hours or more to keep abreast with the work in his

field. This proposal in no way negates the value or necessity of research by faculty. The hours required of a member of the faculty engaged in research would be determined by the percentage of time devoted to his project. For example, a primary investigator informing the Office of Research Administration that 75 percent of his time was going to be devoted to a contract would be asked to teach only 25 percent of the normal teaching load, or four hours.

Organization

The release of the eighteen-month study of the Task Force on University Governance last September brought the issue of the organization of undergraduate education into the open. The Task Force report recommends a unification of the nine undergraduate schools into a single university entity in order to provide Pennsylvania with a sense of universities.

Reaction to the Task Force report has been swift in coming from the various schools, all of whom have urged, in one way or the other, that the current structural arrangement be maintained. In the College, members of SCUE have served on a committee on organization which was established in reaction to the Task Force report. The committee to date has brought the faculty only one brief report which suggested that no cogent reason existed to restructure undergraduate education. The committee wrote that "in absence of . . . evidence . . . there is no justification for overriding the strong objection of several professional schools, notably the schools of engineering." In short, the statement declares that unless strong and damning evidence is presented, one must assume the loudest body of one's colleagues to be correct.

That line of reasoning requires a momentary digression to study the concept of collegiality which, like academic freedom and tenure, was once a needed safeguard but has now become a hindrance to progress. The Committee on Organization's reasoning is a fine example of collegiality at work. It assumes that an entirely homogeneous sub-group of colleagues which perceives its prerogatives and security to be threatened must be more correct than a smaller, broadly-based study group. And so another innovative idea is written off.

In light of the tenuous nature of the College committee's argument we might suppose that behind collegial trust another factor is at work. Collegiality, tenure, and academic freedom have made academe a uniquely secure environment in which to work and teach. Distinct, sacrosanct conventions have evolved, holding certain forms of criticism impolite and divisive. Under these conditions programs have been so carefully preserved that the University was finally completed last year to charge a committee, inter alia, to study the feasibility of terminating programs. The failure of the committee, Academic Planning, is testimony to the strength of the fraternity of self-preservation.

To suggest that a program such as undergraduate education, might be poorly organized, or worse to conclude that a school or a dean might be better utilized in a different manner is to open a Pandora's box which threatens to place everyone under scrutiny. Is not that the type of community the academy should be: one in which colleagues scrutinize each others' programs, bringing to bear the aggregate knowledge on common concerns such as the quality of undergraduate education? The Task Force on University Governance was such an attempt to apply jointly our experiences to the solving of the questions of governance structuring.

The Task Force itself was bound by the etiquette of collegiality and did not present the damning evidence that it seems is necessary. The arguments can, however, be mounted. Undergraduate education at Pennsylvania is not attracting the

better students, as we noted in our discussion of admissions. More and more of those who do come to Pennsylvania leave in frustration. The dropout rate is steadily climbing and is currently approaching one fifth of the class, and those who are dropping out are frequently dropping in elsewhere.

It is obvious that the current model of undergraduate education runs in the face of both the desires of the intelligent applicant and the needs of the aspiring young alumnus. Undergraduate education at Pennsylvania is, if one might borrow a phrase, "a confederation of colleges and not a University." The major reason that we can not afford to continue such a confederation is not merely that it prevents us from achieving a sense of universitas, but that undergraduate professional schools have turned into an outmoded concept in the world of higher education. The entire style of undergraduate education at Pennsylvania is based upon outdated perceptions of the utility of a baccalaureate degree.

The University must ask itself what role it wishes to play in the realm of undergraduate education. Is it to parrot the terminal vocational school or junior college or is it to offer its students a broad and rigorous undergraduate education that could form the basis for later advanced study? It may not be possible or advisable to do both, given the restraints of funding and the conflicting images and conceptions that confuse and hinder an institution that tries to do everything.

We must question the utility of specialized engineering degrees on the baccalaureate level in light of the pace of changes in the field and the broader degrees in engineering sciences being offered undergraduates elsewhere. At its February meeting the faculties of engineering resolved to recommend to the University Council and the Trustees that they be authorized to grant a bachelor's degree in engineering science in place of the current narrow degrees of B.S. in chemical engineering, B.S. in civil engineering, etc. This action reflects a realization of the need for a change in the engineering curriculum that will follow from the granting of the broader degree. There are, however, no indications that the various schools of engineering plan to yield their current position as separate colleges and organize into one school as to provide their students a realistic broad grounding in the science of engineering.

What is needed in engineering is an education that can be applied to work in all aspects of that field. Keeping four separate schools of engineering merely preserve the misconception that this field is one that is not basically interrelated, one in which students should learn current narrow technical skills. We must provide an education in engineering that will give future engineers the ability to move, with relatively little retraining, from one area, such as aerospace, to another, such as mass transit.

The Task Force Report proposes a structural model that would greatly aid in the development of such a program. Read closely, it is hardly the model members of the engineering faculty inferred as making engineering major requirements subject to the central scrutiny now applied by the College to the major requirements of College departments. Rather the Task Force proposal would continue to give the engineering schools control of the professional part of the curriculum and would grant the status of a separate college headed by a dean.

The Wharton School offers the University an opportunity to provide one of the most exciting programs in undergraduate education in the entire country. But if this famous school is to do so, it, like the engineering schools, must drastically revise its curriculum.

The current program for the Wharton undergraduate is a confined set of courses that all too often lacks imagination in presentation, and rarely presents the interrelationships bet-

taught techniques instead of theories, details of current procedure rather than philosophies of future practice. Rather than learning the principles of accounting, Wharton undergraduates are, in reality, taught little more than bookkeeping. The procedural skills of areas such as insurance, marketing, industry, labor relations, and corporate finance are now presented to Wharton students as the core of the study, but little or no effort is made to integrate the information provided in those courses. And that information is far too often provided in an uncritical manner — one that does not give the students the ability to see what might be wrong with the subjects he is studying and what changes might be made in those areas.

We recommend that a major review and analysis of Wharton undergraduate education be commenced within the next six weeks and that the report be completed by 1972 for action by the Wharton School student body and faculty. We think that foundation and corporate support could easily be raised for such a self-analysis, which should yield great returns on a relatively modest investment. The study should review the needs of students and determine how necessary changes in Wharton should be made. As an example of some of the innovations that might be made in Wharton education, we suggest the creation of an interdisciplinary seminar to replace the current five core courses. This seminar would utilize the team teaching method and would provide students with the ability to understand the interrelationships between those areas. Another change that could be made would be the elimination of the current two-term accounting course and its replacement by a course that would teach Wharton students not only the ability to solve bookkeeping problems, but would show them the ways in which financial accounting and statistics can be used to distort an issue. In addition the scope of Wharton education should be expanded to further explore the relationship of business to government, by better utilization of University departments. Establishment of a satellite campus located, perhaps, near Wall Street is another innovation that should be considered.

The undergraduate professional schools are not alone in their need for major curriculum revision, as witness our earlier discussion of the desperate need for redesigning the freshman year and opening additional approaches to the bachelors degree. The fact that there are common problems in undergraduate education to which certain types of solutions might be applied supports the need for unification of undergraduate education.

We realize the justified reluctance of members of a university community to centralize any currently decentralized operation. However we do believe that integration on one level does not preclude decentralization on another, as demonstrated by the work of the Committee on Decentralization of the Task Force. In analyzing the various models and proposals for undergraduate educational restructuring we propose the employment of a structural-functional technique. Only those functions which would be improved through integration would be merged in any new alignment.

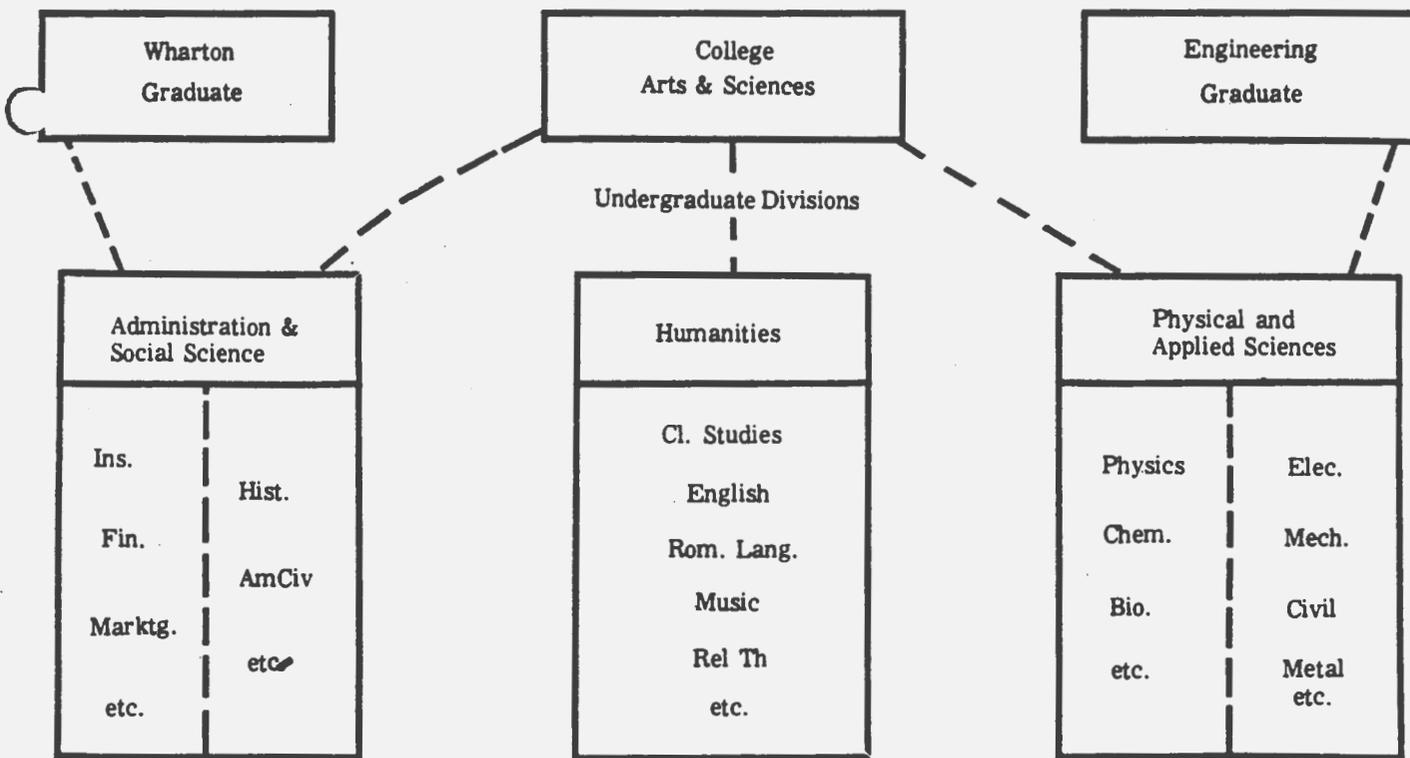
Specifically we recommend the following structural-functional model that merges only those selected elements of administration that are now diverse and weak, and only those functions which can not be done well unless they are done centrally. Generally, we think that by creating a central office for undergraduate education, we can begin, for the first time, to make the fullest use of the great resources of this University. With the power of a central concern, undergraduate education can rid itself of the mediocrity that has grown up because of the fragmentation of responsibility. The creation of a focus can end undergraduate education's role as merely a source of revenue and facilitate a quality program that will involve students in the excitement of the educational process.

graduate model in the arts and sciences. The Wharton and Engineering Schools would still exist as separate entities, but would also act as elements of an undergraduate faculty for certain prescribed matters of common concern to the overall quality of undergraduate education. Components of some schools would merge with components of others to form units which, as intended in the Graduate School, would provide the necessary element of integration. The powers of these units and the undergraduate faculty as a body could be limited to minimum distributional requirements. The thematic linking of departments in units across school lines would enhance the likelihood of interdepartmental programs, team teaching, and advising.

It is important to note that this plan does not include the disadvantages

are not fragmented; indeed they are retained as distinct entities on the graduate level, with certain components of the schools joined to create joint undergraduate programs. The important functions of budgeting and appointment still continue through the schools, providing these structures with a continuing significance in addition to their graduate roles.

Members of SCUE proposed this plan to the President and he has promised to give it detailed consideration. On the face of it we can see no reason why departments with different budgetary bases can not be joined together in administrative units for non-budgetary functions.



(note: Budgetary authority is bounded by the dotted lines, and corresponds to Wharton, Arts and Sciences, and Engineering. Administrative authority is bounded by the solid lines.)

The cross budgeting requires the divisional administrators, if there are (these might well be only committees on the divisional level), to report to different superiors for different functions. While slightly unusual, we can see no reason why a plan requiring a vice dean to report to two deans would not work.

In addition to our proposal for cross-budgeted divisions we recommend the immediate creation of the position of Vice Provost for Undergraduate Education. The current Vice Provost for Student Affairs is not an academic officer; with the forthcoming transfer of responsibility of the Office of Admissions and Financial Aid from the division of Student Affairs to the Provost's office, we see little reason to continue a non-academic office on the vice provost level. Response to this proposal has been unfortunately in terms of counterproposals that would be little more than an ineffective substitute. The College Committee on Organization has suggested the creation of a College committee to bail out the already over-worked College Committee on Instruction. Representatives of other schools could also join this committee as they liked. In addition, the plan presented by that committee has called for broadening the scope of the University Council's Committee on Undergraduate Affairs to include the academic area. Such a committee would be little more than a powerless substitute and would hardly be able to do the job of innovation and supervision that is so needed today.

The new office of undergraduate education must be both prestigious and powerful. It can not be merely a place where a few administrators, one of whom might hold the title of "dean," discuss and develop plans for undergraduate education in a manner similar to that used by committees that now deal with this problem. Rather this position must be occupied by a toplevel administrator who will not be merely the equal of the various undergraduate deans, but one who will be their line superior. The new Vice Provost for Undergraduate Education should also act as chairman of the Committee of Undergraduate Deans, as well as a top officer advising the President.

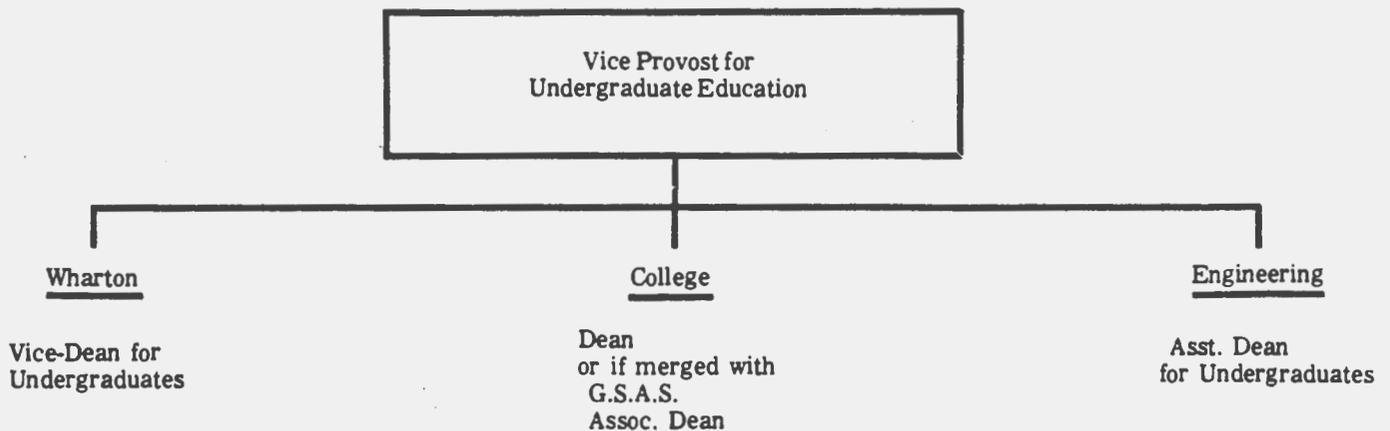
It is essential that an extensive search be made to find an

individual of ability and concern to hold this position. Seed money must be provided in a sufficient amount so that the office of undergraduate education can implement new educational programs. This requires the establishment of a prestigious, powerful and budgeted office.

The office of the Vice Provost for Undergraduate Education should coordinate the joint activities of the divisions, such as advising, minimum distributionals and admissions. Today there is no such coordination. Half a dozen proposals for experimental education have floated about the campus for the last few months with no officer except the president attempting to lend assistance and coordination.

Undergraduate education is too important to rely on the assumption that the President is able to afford to deal directly with the details of these plans. The absence of any real advising system for most undergraduates, (the College for Women's excellent system is the exception), the variance in admissions procedure among the undergraduate schools, and the current separation between the academic functions of the University and the admissions process, require that we move away from the feudal structures of the past, toward the unity and integration that a true University must provide.

A second, but less effective, model for reorganizing the faculties, would rely upon second-level deans of the undergraduate schools, whose primary concern would remain the undergraduate sections of their schools, and who would report to both their deans and the Vice Provost for Undergraduate Education. This would provide some limited element of coordination, although not enough. However it is a plan which lends itself to swift implementation and could serve as an interim step before the integration of the faculties is completed.



Naturally we want to see the swift implementation of the proposals we have made in this report. We are realists enough to know, however, that the appearance of reports or the convening of twenty conferences, by themselves, will not change established institutions and customs. We look towards the creation of the Vice Provostship for Undergraduate Education as the essential first step. That Vice Provost must be an individual with a record of commitment to undergraduates and

contempt for the retarding processes of the University bureaucracy. We look for this appointment very soon, because these are not issues that one can routinely assign to several successive committees for study and slow burial over the course of the next five years. In educational quality, once one succumbs, the current of mediocrity runs swift. It is time to reverse Pennsylvania's drift into that current.