

# STRENGTHENING THE AMERICAN UNIVERSITY OF BEIRUT



BOOZ-ALLEN & HAMILTON INC.

JUNE 1983

# BOOZ·ALLEN & HAMILTON INC.

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June 15, 1983

Board of Trustees  
The American University of Beirut  
Beirut, Lebanon

Ladies and Gentlemen:

With this letter we provide our report entitled Strengthening the American University of Beirut.

Our work leading up to this report occurred principally over the four months beginning November 1982 supplemented by a further trip to Beirut in May to discuss the draft report. Our work was funded by the U.S. Agency for International Development in a grant to the University for management consultant services to "provide management, organization and governance recommendations..."

The report addresses the full range of University functions and deals in separate chapters with:

- . Goals and Strategy
- . Finances
- . Organization, Management and Administration
- . Curriculum and Students
- . Personnel Compensation
- . The Academic Medical Center
- . Development of External Resources.

An Appendix summarizes principal recommendations and responsibilities. The recommendations reflect a careful balancing of successful experience among higher educational institutions and the particular circumstances of the American University of Beirut. In some cases,

Board of Trustees  
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optional courses of action are described and assessed in presenting these recommendations; in other cases, a single recommendation presents the clearly desirable course of action. A computer-based planning model provided as part of our work enables calculation of the impact of changes in major variables such as exchange rates, inflation, enrollment, faculty salaries, tuition, etc.

Implementation of approved recommendations can begin immediately in some cases and will occur over several years in others.

We would like to acknowledge the exceptionally high level of candor and cooperation exhibited throughout our study by members of the University community, particularly President Kerr, Vice President Thabet and the University Planning Committee, Vice President Rice, Vice President Hallab, and Acting Vice President Sayegh. The dozens of trustees, faculty members and administrative officials of the University and the hospital we interviewed were consistently helpful. Both their initial views and their comments on our preliminary findings, conclusions and recommendations have been fully considered in this report.

We recognize that some of our recommendations will be controversial. We offer them with the conviction that they are in the best long-term interests of the University and that they provide the basis for significant strengthening of the institution.

Many people have bright hopes for the American University of Beirut. We join in these hopes and are honored to have had this opportunity to offer our professional counsel on how they can be achieved.

Very truly yours,

*Boaz Allen & Hamilton Inc.*

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## EXECUTIVE SUMMARY

AUB's present situation mirrors that of the country and region where it is placed:

- . Possessed of a glorious heritage
- . Challenged by changes within and without.

In this heritage and challenge lies great opportunity for the University.

① First in order and importance is to establish goals and strategies for AUB that will provide meaningful direction for the balance of the century. AUB should:

- . Preserve the major elements of its heritage while redefining liberal education to enhance "technological literacy"
- . Strengthen the University's financial position by achieving a balanced budget through expanding external resources and increasing tuition and fees to cover a higher proportion of costs
- . Operate the University's hospital more efficiently while continuing its role in support of medical education

Strengthen programs in three strategic directions: professional education, programs beyond the campus, and use of computers in learning and research

- . Reshape the Agricultural and Food Sciences program
- . Increase overall University enrollment.

② Second, AUB should increase its prices for tuition, fees, and other charges so they reflect costs, inflation, demand, and uncertainty. Minimum standards should be established for the share of costs incurred by each department that should be covered by tuition. Tuition should be differential, reflecting both differential costs and demand. For auxiliary enterprises (food service, book store, laundry, etc.) and hospital charges, coverage

ratios of 110-120 percent of actual costs should be established to reflect both inflation and pricing uncertainties.

The budget and planning process should be strengthened by annual development of a 5-year capital budget for facilities and equipment and a 3- to 5-year program budget for current and modified levels of operations.

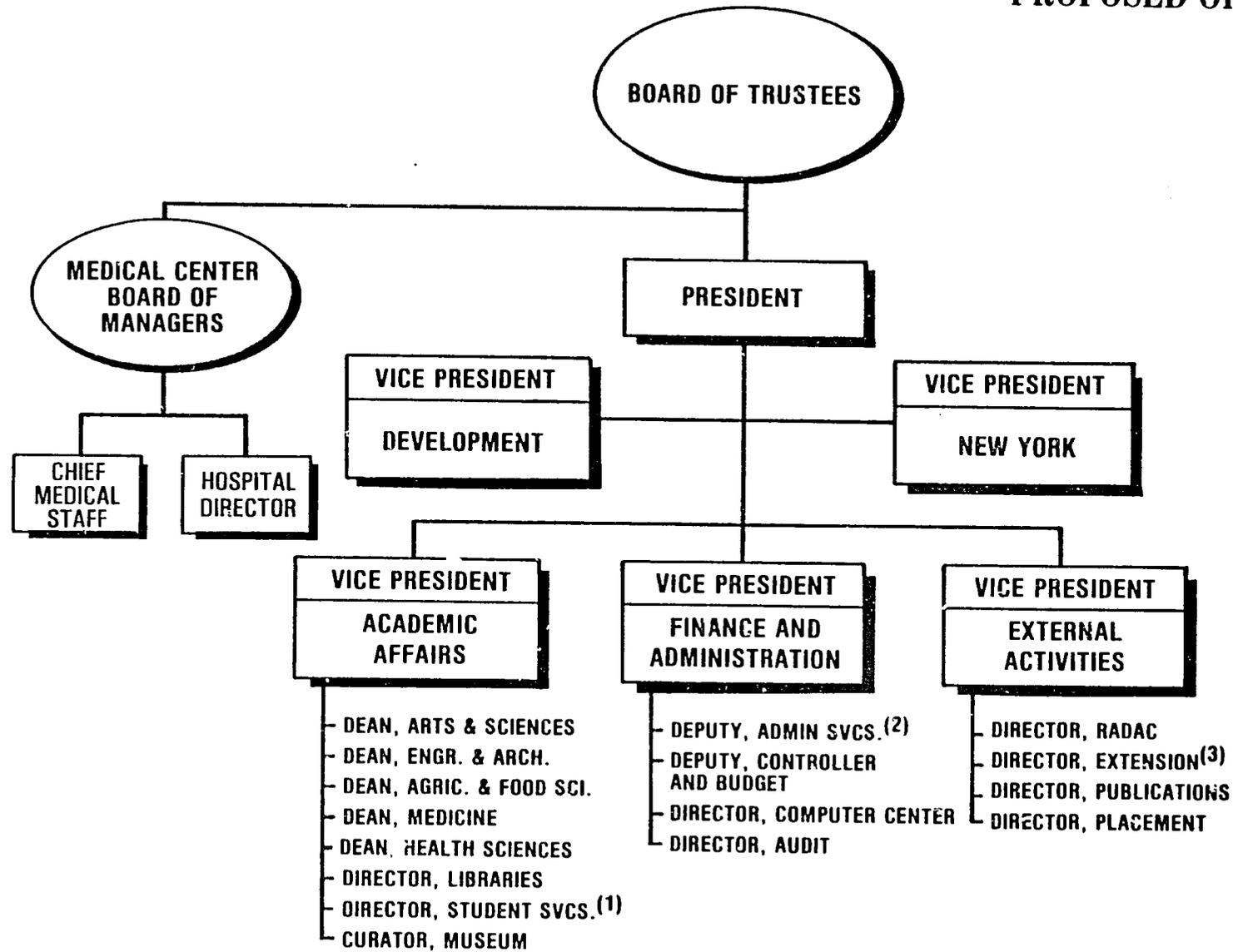
A computer-based financial planning model (provided as part of this project) should be used to estimate the likely impact of changing factors such as exchange rates, inflation, enrollment, faculty salaries, tuition, and the like.

Financial projections for 5 years forward suggest that AUB can achieve financial stability, providing prices are adjusted to reflect costs. Significant faculty salary increases can be accommodated. U.S. Government aid is assumed to grow at no more than the inflation rate. This aid should continue, though diminishing as a proportion of overall university revenues, as clear witness to the U.S. Government's commitment to the region and to the role of higher education in its growth and development.

Third, University organization and management should be strengthened by creating a structure described on the exhibit following this page. Under this structure, three Vice Presidents would oversee major operations of the University: Academic Affairs, Finance and Administration, and External Affairs. Two Vice Presidents would assist the President in the staff functions of development and American relations. A Medical Center Board of Managers would provide oversight and leadership for the Academic Medical Center, while the Deans of Medicine and Health Sciences would be part of the total academic community reporting to the Vice President, Academic Affairs. Several opportunities exist for significant improvements in the management and administrative processes of the University, and a three-phase plan should be developed for expanding computer use for administration, teaching, and service.

Fourth, the curricula of the University should be reshaped to favor fields of study with high applicant-enrollee ratios and high cost-coverage ratios, both of which reflect areas of the University's comparative strength. In addition to continuing the University's liberal education tradition, professional education should be strengthened in the fields of medicine, engineering, and business. Graduate programs in these fields should be expanded.

American University of Beirut  
**PROPOSED ORGANIZATION PLAN**



(1) SUPERVISING BURSARY STUDENT'S OFFICE, REGISTRAR, STUDENT SERVICES

(2) SUPERVISING HOUSING, PROTECTION, PHYSICAL PLANT, PERSONNEL, PURCHASING, SUPPLY

(3) EDUCATION DEPARTMENT MOVES TO ARTS AND SCIENCES

3

Fifth, a compensation system should be established that provides differentiated salaries reflecting both academic and professional markets. Significant increases in overall salary levels are possible within the financial scenarios projected. Particular attention should be paid to recruiting able faculty at the intermediate level to fill a gap presently existing between senior faculty and junior faculty with long tenure in entry grades.

Sixth, because the Academic Medical Center represents well over half of AUB's human and financial resources, its organization and management is particularly important. Patient days have declined in the past year, and there are staffing problems, reimbursement problems, and increasing competition -- all of which increase the urgency of strengthening the Academic Medical Center. [A reshaped organizational structure placing the faculties of Medicine and Health Sciences under the Vice President for Academic Affairs and the hospital operations under a Board of Managers, can create a productive relationship between the dual goals of excellent medical education and efficient hospital operations. To improve internal hospital operations, hospital management should be made accountable for hospital service functions that are now provided by the University (purchasing, stores, maintenance, personnel, etc.).

The Hospital Board of Managers, appointed by the University Board of Trustees and chaired by the President of the University, would have the principal function of:

- . Establishing long range plans and capital budgets within the Board of Trustees' broad policies
- . Approving annual plans and budget
- . Appointing the Hospital Director and approving medical staff organization and appointments. The Chief of Medical Staff would have direct access to the Board.

The Board of Managers should be a small body composed of members drawn from the University community (hospital director, faculty deans, medical staff, trustees, etc.) and external members appointed on the basis of their breadth of professional expertise and stature as leaders in the local area. The hospital thus continues under the ownership and control of the University but with a broadened base of leadership and support.

Hospital prices should be modified to keep pace with inflation and modern technology requirements, and the overall hospital budget should aim at producing net income as a percent of revenue at least equal to the inflation rate. The hospital's financial performance will also be enhanced by encouraging part-time physician faculty members to increase their use of the hospital for first and second class patients.

Seventh, external resources for the University can and should be increased substantially. AUB has a very modest endowment and exceptionally low alumni giving. Much can be done to enhance both. Fund raising should be focused on both North America and the Middle East and development offices should be located in both areas. With substantially expanded development resources, there can be high confidence that fund raising efforts will be fruitful and that significant increases in this source of University funding can be achieved.

In short, AUB has a future that can be as bright as its past. To claim this future the University should:

- . Preserve its heritage
- . Modernize its curriculum
- . Improve its management.

And it should continue to sustain its institutional freedom, strong in the conviction that such freedom grows from the same soil that has nurtured the development of free institutions and free enterprise in its host country.

## I. GOALS AND STRATEGY

The goals of any university derive from an amalgam of its heritage, its environment and the aspirations of its current leadership -- all applied within the framework of available resources. At the American University of Beirut there are distinctive features in each of these elements. This chapter addresses the University's:

- . Heritage
- . Changing Environment
- . Goals and Strategic Directions.

### 1. THE HERITAGE OF AUB

#### (1) The Following Array of Terms Highlight AUB's Heritage

- . Established - Founded in 1866
- . Regional - Drawing students from most countries of the Middle East
- . Private
- . Independent } - Governed by a self-perpetuating Board of Trustees
- . Non-sectarian
- . Co-educational
- . English language instruction
- . "American style" education - Search for learning and truth without constraints of dogma

- . Liberal - Teaching of diverse ideas from different cultures
- . University - Providing both college and professional education.

Many more words could be written to describe AUB's heritage, but none are likely to be more eloquent or timely than President Kerr's 1982 Convocation Address description of the University's "special mystique". These words are quoted on Exhibit I-1.

(2) From Today's Perspective, Several Additional Observations Can Be Made

While these judgments are subjective and sure to be challenged, they are formed from the perspective of independent and reasonably informed observers.

- . AUB's academic reputation is high, but is eroding and is not fully supported by current capabilities.
- . The campus is magnificent, but much equipment is aging and in need of replacement.
- . The faculty and staff have demonstrated high dedication in difficult circumstances, but many members are anxious about their future and the University's.
- . The present strategy of the University is perceived to be a continuation of current programs -- "more of the same".

2. THE CHANGING ENVIRONMENT

(1) Petroleum Has Emerged as the Dominant Economic Resource of the Middle East, Changing the Region's Perceived Objectives and Needs

- . Agriculture, formerly a dominant regional concern, is becoming less central as food production in many countries has expanded.
- . Regional needs for university graduates will increasingly derive from the manpower requirements of oil-based economies.

EXHIBIT I-1  
American University of Beirut  
AUB's "Special Mystique"

The following excerpt from President Kerr's Convocation Address, October 21, 1982, describes three elements of what he called "the special mystique that surrounds our University."

"First, AUB is a liberal University. It promotes the teaching of diverse, even contradictory ideas from different cultures. It encourages the student to think for himself, to develop his intellect in a creative, inquisitive manner. It encourages him to understand that basic questions concerning man and nature can have more than one answer. It places a supreme value on the search for truth. It insists that the student of chemistry or engineering should also learn something about philosophy or history or literature, so that he can become not just a chemist or an engineer but something much more important: an educated man. This is one of the main reasons why AUB graduates in the professional fields, like engineering, are so successful in the Arab World, more than graduates of other universities: they are educated men, and as such, they have a better sense of what they are doing in their careers and how they relate to society.

Second, AUB is an international university. It is called "American," yet most of its faculty and students are Lebanese, and many others are from other countries, often quite distant ones. Why do all of us feel at home here, and why do we feel that it is our university? Why did the word "American" in its title survive, and continue to earn respect, in an age when many people in this part of the world had grown disillusioned with America and suspicious of it on a political level? Why did people continue to come to AUB, despite all the violence taking place in Lebanon?

One answer is that they saw the AUB as a place embodying the best values that were traditionally credited to America in the good old days - freedom, brotherhood, service to others - and the values that are still associated with the American style of education, a liberal education, that is called American but has become an internationally appreciated commodity, like computers and Pepsi Cola. At the same time we can also say that AUB embodies the best traditional Lebanese values: tolerance and mutual respect among diverse communities, openness to the world, initiative and hard work, and an appreciation of the natural beauty, such as we see in our campus.

EXHIBIT I-1 (continued)

Lebanon has always been a natural meeting place for people of different cultures, to come together for commerce or for studying. In recent years, unfortunately, some of them came to Lebanon to fight each other. Let us hope this chapter of history is finished.

A third special feature of AUB is its concern for the individual, whether he is a student, a teacher, a worker, or an alumnus. This is true intellectually and socially. Students are encouraged to develop their individual potential. We try to keep classes small, not always but often successfully. Teachers are required to keep office hours, and students should expect at times to visit them there to discuss their work - or sometimes, perhaps, other interesting subjects. We try also to keep in touch with our graduates, the alumni, to make them feel that this university continues to be their intellectual home and to encourage them to contribute to its work, financially and otherwise. We take pride in treating students, teachers, and workers fairly and sympathetically - sometimes strictly when necessary, but as members of a family. This more than anything else may be the principal legacy of the three generations of great men who established this university and put it on the map and in the hearts of the people of this part of the world: Daniel Bliss, Howard Bliss, Bayard Dodge, and the Arab and American faculty members who worked with them. This family spirit may have come under some strain in the last few difficult years. It is important for us to bring it back."

(2) The Security Situation in Lebanon Remains Unsettled

- . The past decade of conflict has created an image of Beirut that inhibits many people from seeking a higher education at AUB.
- . No one can predict reliably when a sustained level of security will be achieved in Lebanon.
- . Substantial numbers of students from other countries will be reluctant to enroll at AUB until a reasonable level of security is sustained.

(3) The Government of Lebanon Has Indicated Its Desire for a Greater AUB Focus on Lebanon

- . Some government spokesmen have suggested that the University should place greater emphasis on education for Lebanese students and on service to the country.
- . Recent reviews of the visa status of foreign faculty and students have created concerns among some.

(4) Across the Middle East Several Universities Have Arisen to Challenge the Historic Pre-Eminence of AUB in the Region

- . A 1982 survey by the Arab Bureau of Education for the Gulf States (to be published) reflects the extraordinary expansion of higher educational institutions in the Gulf and Arabian Peninsula.

<u>Established -</u>	<u>Universities</u>	<u>Faculties/ Colleges</u>
Prior to 1960	5	18
1960-1970	9	39
Since 1970	5	62
Percent Increase since 1970	36%	109%

*competition from other univs.*

. While many of these institutions may be handicapped by short-term foreign faculty and constraints on academic freedom, they create a real alternative for many Arab students.

- Their facilities and equipment are excellent, which is particularly important in medical and engineering education

- The cost of attendance is very low.

. AUB will need a greater "comparative advantage" to draw students from other Middle Eastern countries who have the choice of a local university or one in North America or Europe.

(5) AUB's Competitive Position, As Perceived From the Perspective of Students in Several Middle Eastern Countries, Is Strong in Several Fields

. Exhibit I-2 portrays subjectively the "relative attractiveness" of AUB to students from several countries seeking higher education in various fields.

. AUB's strongest competitive positions are in fields of:

- Medicine
- Engineering
- Arts and Sciences
- Business

See also Chapter IV, Section 4.

3. GOALS AND STRATEGIC DIRECTIONS

(1) In Defining Its Goals for the Eighties, AUB Should Preserve the Major Elements of Its Heritage

. None of the elements described in paragraph 1(1) should be abandoned.

. "Liberal" education deserves continuing re-definition in light of changing social and technological conditions and requirements:

**EXHIBIT I-2**  
**American University of Beirut**  
**COMPARATIVE ATTRACTIVENESS TO STUDENTS**

FIELD	NATIONALITY					
	LEBANON	JORDAN	SYRIA	SAUDI ARABIA	GULF STATES	OTHER STATES
MEDICINE	★	□	□	□	□	□
ENGINEERING UNDERGRADUATE AND GRADUATE	★	★	★	□	★	★
AGRICULTURE UNDERGRADUATE	□	●	●	●	●	□
AGRICULTURE GRADUATE	□	□	□	□	□	□
ARTS AND SCIENCES UNDERGRADUATE	★	★	●	●	●	●
ARTS AND SCIENCES GRADUATE	□	□	□	●	●	●
BUSINESS UNDERGRADUATE	★	●	●	●	●	□
BUSINESS GRADUATE	★	□	□	●	●	□

SOURCE: BOOZ-ALLEN SUBJECTIVE JUDGEMENT, BASED ON INTERVIEWS OF HOW STUDENTS OF VARIOUS NATIONALITIES VIEW THE RELATIVE ATTRACTIVENESS OF AUB IN DIFFERENT FIELDS OF STUDY.

★ — ATTRACTIVE  
 □ — COMPETITIVE  
 ● — LIMITED

- Core curricula required of all students should be scrutinized to confirm that they enable students in fact to develop "...breadth of vision, a sense of civic and moral responsibility, and devotion to the fundamental values of human life," as well as "high ethical, moral, and spiritual values". (Quotations from AUB Statement of Policy)
- The Sloan Foundation program in "New Liberal Arts" offers worthwhile ideas for enhancing "technological literacy" as part of a liberal education. Exhibit I-3 provides a few aspects of the vision behind this program.

(2) Strengthening the University's Financial Position Must Underpin AUB Goals and Strategies

- . Tuition should be increased to cover a higher proportion of costs (See Chapter II).
- . The budget should be balanced (See Chapter II).
- . University management and administrative practices should be improved (See Chapter III).
- . The endowment and annual giving -- now very modest -- should be expanded (See Chapter VII).
- . U.S. Government aid should continue as a demonstration of American commitment to the region, but can be at a diminishing proportion of the University's budget as other revenue sources expand. A portion of aid could be based on "challenge"; i.e. tied to expansion of other revenue sources.

(3) The University's Hospital Must Be Operated More Efficiently While Continuing Its Role in Support of Medical Education

- . Hospital revenues and expenditures approximate half of the AUB budget.
- . Even with a significant medical education responsibility, the hospital functions principally as a business selling a service for charges that can and should cover its costs.

Exhibit I-3  
American University of Beirut  
The "New" Liberal Arts

The following excerpts are taken from the paper entitled "The New Liberal Arts", by Stephen White, included in the booklet by James D. Koerner (ed.) The New Liberal Arts - An Exchange of Views, Alfred P. Sloan Foundation, New York, 1981.

"So long as there have been societies, there has been the notion of acculturation -- of a process by means of which each generation will be made acquainted with the culture it shares and prepared to enjoy within that culture a rewarding and an enriching life. The manner in which that acculturation is sought has changed over time, but for a good many centuries it has come to be called a "liberal education." Its salient characteristic lies in serving the inner being of the individual and the spirit of his society rather than their material needs; its rewards are neither of the kind that can be heaped and hoarded nor of the kind that must be consumed and renewed. At its heart lies the human urge to understand the world in which the individual finds himself rather than the animal need to exert some kind of control over the world.

...

For the Greeks and Romans, the liberal arts (as contrasted to the "servile" or "mechanical" arts) were first grammar, rhetoric and logic, to which were subsequently added arithmetic, geometry, music and astronomy. Much of this fell away during the centuries of poverty and disequilibrium that followed the barbarian invasions of Western Europe, and when the struggle to recover stable societies began to gain ground, it was understandable that a liberal education should come to be defined as a close acquaintance with the classics.

...

"Change came slowly; as recently as the last century the largest part of a liberal education was classical history and classical literature and classical philosophy, intermingled with what might be called classical theology. A scholar who spent his life at Oxford said of the University that when he first knew it, in mid-century, it appeared to be characterized by the belief that "all knowledge was shut up between the covers of four Greek and four Latin books," and Ralph Waldo Emerson wrote that "Oxford is a Greek factory." American colleges were somewhat less rigid; the American temperament created urges toward practicality, but the mid-century college experience has been described as "... the college chapel ... the dying but still socially respectable and useful classical course of study,

the capstone course in moral philosophy that was its great glory, and the extra-curriculum with which students took charge of their own education." And in 1846, when Professor Evert M. Topping of Princeton was so bold as to suggest that Greek could be dealt with as a literature as well as a language, he was quickly brought to heel by the president, and shortly thereafter his resignation was gratefully accepted.

...

"Evolution has been more rapid in recent years. Entirely new fields of study have penetrated the liberal arts curriculum in the United States: the behavioral sciences made their way into the curriculum and in some instances may be said now to dominate it; the study of history has given way to "American studies"; the study of literature to "creative writing" or "communications." There has been moreover a constant oscillation between the notion of a general liberal education and of a highly organized educational pattern in which one academic discipline or two are intended to be the focus of each individual student's efforts. There are periods in which the urge to reform is quiescent; in the last few years it has begun to reassert itself, with such prestigious undergraduate colleges as those at Harvard University and Stanford University in the forefront.

...

Crudely speaking, the computer is beginning to do for the mind of man what the engine did for the muscle of man. The engine permitted man to manipulate matter in great bulk and at great speed; the computer permits man to manipulate data with the same extraordinary facility.

...

What the computer has done, quite beyond helping with airline reservations, is provide scope for analytical skills that has never before existed, and in so doing it has altered the world in which the student will live as well as the manner in which he will think about the world. It is these basic facts that constitute the link between the computer and a liberal education.

...

"The phrase "analytic skills" is ... shorthand for the kind of analysis that employs certain mathematical skills and that derives from mathematics a prodigious power. Those skills are not the skills of the pure mathematician, although they may employ the fruits of pure mathematics much as technology employs the fruits of pure science. They are constituted of two parts, not entirely distinguishable: mathematical modeling, which seeks to reduce a complex situation to a state in which it lends itself to mathematical manipulation, and that manipulation itself, which is almost always the manipulation of numbers.

"The word "technology" is almost always associated with science and engineering, and for more than a century has come to constitute the bridge between those two quite different enterprises. It employs scientific knowledge and the techniques of scientific analysis as part of an organized process that eventuates in the creation of new products, material or conceptual.

...

"The ability to cast one's thoughts in a form that makes possible mathematical manipulation and to perform that manipulation, coupled with the ability to conceive the fruits of that analysis, are modes of thought, and there is evidence all around us that in making use of those modes of thought one may think with enormous new efficiency.

...

"And it is precisely as modes of thought that they become essential in higher education, and above all in liberal education. It has always been the purpose of a liberal education to provide an acquaintance, at least, with modes of thought, and even beyond that the beginnings of some degree of mastery over one or more of those modes of thought. The man with a truly liberal education is one who is aware of many modes of thought and aware, too, of the manner in which they interact among themselves and with the larger purpose of becoming a useful and a fulfilled human being.

...

The changes that should occur will be taking place in the college as a whole; they will affect not only the offerings of the liberal arts curriculum but the very conceptual basis of the liberal arts curriculum. Courses in applied mathematics cannot be regarded as something added to an established curriculum; they must be seen to lie at the heart of the curriculum, and must make the same claim on the college as a whole as courses in philosophy or government or literature or languages....

...

"It cannot be too often stressed that the purpose is not turn out from the liberal arts college hordes of applied mathematicians and technologists and computer scientists, any more than it was earlier the purpose to turn out hordes of philosophers and historians. The purpose has not changed: it is to turn out civilized adults, a few of whom will inevitably become applied mathematicians and technologists and computer scientists and philosophers and historians, most of whom will not. But no adult is truly civilized unless he is acquainted with the civilization of which he is a member, and the liberal arts curriculum of fifty years ago no longer provides that acquaintance. The fact that it does not do so is reflected by the fact that one can no longer study even philosophy or history at a respectable scholarly level without some acquaintance with the modes of thought represented by analytic skills and technological skills."

- . Tensions between service and teaching roles and disputes over allocated costs are inescapable but should be resolved in a management framework that balances operational and educational objectives at the bottom line.
- . Chapter VI describes present and proposed arrangements for the Academic Medical Center.

(4) Programs Should Be Strengthened in Three Strategic Directions

- . Expanded professional education
- . Enlarged programs beyond the campus
- . Expanded use of computers in learning and research.

Exhibit I-4 describes and assesses each of these strategic directions, whose implementation would require several years. Although each has some disadvantages, all the strategic directions should be pursued.

(5) The Agricultural and Food Sciences Program Should Be Strengthened and Supported by Special External Funding or It Should Be Discontinued

- . The present program has a relatively low attractiveness to students and a relatively high cost
  - The applicant-to-acceptance ratio was 1.3 in 1981 and 1.2 in 1982 -- well below the AUB mean of 2.5 and 1.9 in those two years. Although the practice (prior to this year) of counting applicants only in the first faculty for which they apply may be seen to understate the statistical ratio for Agricultural and Food Sciences, it is clear that this program falls well behind business, health sciences and engineering in attractiveness to students. The 1983-84 application flow continues this relative attractiveness position.
  - Scholarship or bursary students supported by the U.S. Agency for International Development represented only 5 percent of all students in the spring semester, 1982-83. (Total bursary students represented 7 percent of enrollment.)

*Also see  
students*

EXHIBIT I-4  
American University of Beirut  
Three Strategic Directions

DESCRIPTION	CONSEQUENCES/IMPLICATIONS	ADVANTAGES	DISADVANTAGES
<ul style="list-style-type: none"> <li>• <u>Expanded Professional Education</u> <ul style="list-style-type: none"> <li>- Nursing</li> <li>- Engineering</li> <li>- Business</li> <li>- Medical specialties</li> </ul> </li> <li>• <u>Enlarged programs beyond the campus</u> <ul style="list-style-type: none"> <li>- Collaborative teaching with other institutions - e.g. Hariri Hospital</li> <li>- Expanded extension programs in Beirut, Lebanon, and (eventually) beyond</li> <li>- Expand RADAC - consulting and contract research</li> </ul> </li> <li>• <u>Expanded use of computers</u> <ul style="list-style-type: none"> <li>- Computer literacy for <u>all</u> students</li> </ul> </li> </ul>	<p>Stronger graduate programs</p> <p>Need for significant and differential salary increases for key faculty</p> <p>Need for modernized equipment</p> <p>Issues: Degree or non-degree courses?</p> <p>Mix of regular and adjunct faculty</p> <p>Issue: Extent of regular faculty involvement vs. different personnel</p> <p>Need for faculty training and costly equipment</p>	<p>Establish AUB as regional center of recognized excellence</p> <p>Respond to market demand</p> <p>Expanded AUB impact and service; premium revenue paid for AUB pre-eminence</p> <p>Large margin of revenue over cost</p> <p>Extend AUB influence; service to Lebanon</p> <p>Expanded AUB service</p> <p>AUB overhead support</p> <p>Opportunity for AUB pre-eminence in rapidly spreading technology</p>	<p>Possible danger of excessive "vocationalism" eroding liberal education values</p> <p>Higher costs (which can be offset by higher tuition)</p> <p>Dilution of on-campus resources</p> <p>Dilution of on-campus resources</p> <p>Dilution of primary role of university</p> <p>Cost (offset by attractive donation possibilities)</p>

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- The program has the lowest adjusted "cost coverage ratio" among the University's major faculties -- 51 percent. This means that tuition revenues, adjusted for teaching of Agricultural and Food Sciences students by other faculties, cover 51 percent of costs -- on a comparable basis with other faculties where the ratios range from 59 percent to 83 percent (see Chapter II, Section I-4). It can be argued that the "costliness" of the Agricultural and Food Sciences program is significantly diminished if the program is "credited" with the net return from RADAC contracts related to agriculture. About 60 percent of the \$3.2 million RADAC net is associated with agriculture contracts -- or about \$1.9 million. Although the Agricultural and Food Sciences faculty has had and continues to have a significant role in marketing and overseeing these contracts, the preponderant staff involved -- well over 90 percent -- are direct hires for the contract work and have little to do with the AUB teaching program in Beirut. Such an allocated "credit" thus would disassociate the indicated return from the personnel and operations that generate it.
- . Private universities rarely operate agriculture programs because they are so costly. Governments frequently provide extraordinary support for agricultural training and research because of their perceived public value.
- . Continuation of the Agricultural and Food Sciences program can be justified only by strengthening the program to improve its attractiveness and acquiring additional funding.
  - One attractive direction for strengthening the program is increasing integration with other university programs, such as is being pioneered in the nutrition area and may be possible in the agri-business area.
  - External funding from governments or international bodies should be sought to support the high costs of the program.
- Without actions to improve its content and augment its funding, the Agricultural and Food Sciences Program should not be continued.

(6) Substantial Increases in Overall University Enrollment Should Be Considered

- . The high applicant flow in several fields suggests that an adequate pool of potential students exist (see Chapter IV, Section 1).
- . Although the campus is fairly well "filled", more intense use of facilities is possible.
  - Better scheduling within the day and week
  - Better year-round utilization
  - A physical master plan for the campus should be prepared in light of enrollment expansion and other aspects of property/facility condition, use, and potential.
- . The marginal cost of additional students will be low.
- . The phrase of the University Planning Committee -- "Grow Into Solvency" -- conveys an attractive strategic direction, providing that the growth is selective and is accompanied by price increases that reflect market demand and AUB costs.

## II. FINANCES

For more than a decade, AUB has experienced financial stresses -- both in available funds and in systems to account for its funds. Contributing to these stresses have been sharp inflation in Lebanon, a level of U.S. Government grants that has declined substantially as a percent of University expenditures, and inadequate personnel, computer and systems resources to manage finances effectively.

This chapter addresses the following key aspects of the University's finances:

- . Pricing
- . Financial scenarios
- . Planning and budgeting
- . Financial reporting and control.

### 1. PRICING

#### (1) AUB Prices Are Too Low In Most Areas; Price Increases Should Vary, Depending On:

- . Costs of delivering the service (including inflation, equipment replacement, and overhead)
- . Demand for the service, which in some cases may allow prices to exceed the costs of delivering the service and provide a surplus for use in other areas
- . Uncertainty factors (including changes in inflation and exchange rates, shifts in demand, errors in forecasting, etc.) which may require a contingency margin of 10-20 percent over cost recovery in most areas.

(2) AUB/AUH Prices are Generally Comparable to or Below Those of Key Competitors, Who Have Raised Prices More Than AUB/AUH

- . AUB and AUH are the major providers in their respective fields in Lebanon, so that competitors tend to set their prices relative to AUB/AUH. Some feel they cannot raise their prices further until AUB/AUH prices rise.
- . International College and Beirut University tuitions are both virtually identical to AUB Arts and Sciences tuition, with Hagazian College slightly lower. The tuition gap between AUB and all three schools has narrowed significantly since 1976, due to smaller increases at AUB.
- . AUB's tuition and residence costs are far below the cost of most U.S. public and private institutions. (See Exhibit II-1 showing College Board data on tuition and fees.)

(3) AUB Tuition Increases Should Keep Pace With Inflation, Plus Take Advantage of Strong Demand in Areas in Which AUB Attracts Many More Applicants Than it Can Accept

*strong demand areas*

- . Such areas include business, medicine, and engineering
- . Tuition increases in heavily demanded fields should be greater than the AUB-wide average tuition increase.

(4) Minimum Standards for Cost Coverage Should be Established for All Faculties

These standards should take account of courses and other services provided by one faculty for another.

*what tuition covers*

- . For the current year (1982-83), AUB tuition will cover:
  - Ninety-four percent of direct faculty costs
  - Fifty-one percent of educational and general costs
  - Twenty-three percent of total AUB (including AUH) costs.

Tuition should cover all of direct faculty costs and make a significant contribution to other educational and general expenses.

EXHIBIT II-1  
American University of Beirut  
Tuition Comparison

School Name *	Tuition and fees	Room and Board	Books and Supplies	Other Costs
MIT	\$ 8,700	\$ 3,500	\$ 350	\$ 900
Princeton	8,380	3,088	280	870
Brown	8,380	3,135	450	800
Amherst	8,255	2,750	275	670
Stanford	8,220	3,423	350	745
Harvard	8,195	3,905	250	700
Barnard (Columbia)	8,142	3,700	300	500
Pennsylvania	8,000	3,700	300	700
Columbia Engineering	7,922	3,550	275	600
Columbia College	7,894	3,550	350	600
Rensselear Polytech	7,790	2,700	250	500
Cal Tech	7,575	3,150	325	750
Johns Hopkins	6,920	3,000	250	750
Georgetown	6,830	2,920	400	600
Duke	6,450	2,930	335	645
George Washington	5,100	3,400	300	700
Michigan	5,011	2,500	240	820
UC-Berkeley	4,323	2,800	345	858
UCLA	4,308	2,300	342	1,127
Purdue	3,800	2,200	270	760
Indiana-Bloomington	3,756	1,977	284	1,000
Ohio State	3,510	2,271	210	803
Georgia Tech	3,177	2,550	270	600
Texas-Austin	1,506	2,980	250	700
AUB (LL4=US\$1)**				
Arts and Sciences	2,667	900	--	350
Engineering	3,236	900	--	350
Agriculture	3,005	900	--	350
Medical	4,122	900		

AUB data obtained from the institution and converted into dollars at the indicated exchange rate. AUB tuition is paid in Lebanese pounds, except for a small number of bursary students whose sponsors pay in dollars.

\*From COLLEGE HANDBOOK, 1982-83, by College Entrance Examination Board  
 \*\*AUB data obtained from the institution and converted into dollars at the indicated exchange rate. AUB tuition is paid in Lebanese pounds, except for a small number of bursary students whose sponsors pay in dollars.

- . For U.S. private four-year institutions, tuition covers an average of 70-75 percent of educational and general expenses.
- . The ratio between regular tuition and "full cost" tuition paid by AID and other sponsors provides another measure of cost coverage, focused on individual faculties. For the current year, the values for each faculty are as follows:

Arts and Sciences	- 42% of full cost
Agriculture and Food Science	- 46
Engineering and Architecture	- 70
Medicine	- 29
Public Health	- 52
Nursing	- 31
Education	- 58

If the regular tuition in each faculty during 1982-83 had been at least 50 percent of "full cost", the difference in revenue would have more than balanced the "education and general" components of the AUB budget.

- . AUB cost coverage ratios are currently computed solely on the basis of costs and tuition revenues, without regard to inter-faculty transfers (for example, courses taught by Arts and Sciences are required for graduation by Public Health)
- A complete accounting of inter-faculty transfers has not been prepared by AUB recently. The best estimate, prepared for the University Planning Committee, shows only the share of coursework for other faculties' degrees provided by Arts and Sciences:

Engineering and Architecture	- 16% of courses required
Agriculture and Food Science	- 29
Nursing	- 37
Public Health	- 43

- If these transfers are taken into account, the raw cost coverage ratios for faculties other than Arts and Sciences drop, while the ratio for Arts and Sciences improves:

	<u>Raw</u>	<u>Adjusted</u>
Arts & Sciences	65%	83%
Agriculture and Food Science	81	51
Engineering and Architecture	85	68
Nursing	98	61
Public Health	107	61
DEEP	75	75
Medicine	59	59

The coverage ratios shown above include allocations of indirect costs and of certain types of income earned by other parts of the University. They are from a report prepared by the University Planning Committee.

(5) Auxiliary Enterprises And Hospital Budgets Should Aim At Coverage Ratios On The Order Of 110-120 Percent

- . Such enterprises include housing, bookstore, food service, and like activities.
- . Current practice at AUB is to aim at 100 percent cost coverage in these areas, which does not allow for uncertainties such as changes in inflation and/or exchange rates, reduced occupancy or usage rates, forecasting errors, and other contingencies. As a result, deficits occur frequently.
- . Good practice should provide for a break-even point below the budgeted level of operation for units that are expected to cover costs fully. This should be taken into account when setting prices for services provided by these units.
- The size of the budgeted margin should be based on the probable range of uncertainty, taking into account the variability of the exchange rate, inflation, and other factors that could affect occupancy rates and service needs in AUB/AUH facilities.

- Taking these considerations into account, 110 to 120 percent of calculated cost is an appropriate initial target.
- Allowances for equipment replacement included in price computations should take into account the cumulative impact of inflation and technological obsolescence, both of which will raise significantly the size of such allowances.
- . The cost coverage ratio for auxiliary enterprises maintained by U.S. private institutions of comparable size averages about 115 percent, according to a recent study by Peat, Marwick & Mitchell.

(6) Correction of Pricing Deficiencies Would Eliminate AUB's Current Operating Deficit And Provide The Foundation Needed For Financial and Academic Rejuvenation

- . Past deficits can be largely attributed to significant underpricing, including inadequate allowance for uncertainty and risk.
- . Increasing tuition and other prices to acceptable cost-coverage levels is not limited to weak demands or lower prices among comparable institutions
- . Corrected cost coverage will provide the funds for academic improvement, scholarships, and other desirable features that will further strengthen (rather than weaken) demand for an AUB education.
- . Corrective action should be initiated immediately with a major adjustment (not spread over several years). Subsequent adjustments each year (more frequently for minor items) should then keep pace with inflation, program changes and input cost changes, plus improve contribution to overhead.

## 2. FINANCIAL SCENARIOS

### (1) Several Scenarios Exist by Which Financial Viability for AUB Can be Achieved

The key features of these scenarios include:

- . Raising tuition and other prices adequately to keep pace with inflation and other cost increases
- good* . Continuing to operate programs at their present levels unless it can be clearly shown that proposed changes will provide almost immediate net income or are vital to maintain quality
- . Raising wages, salaries, and other operations outlays at the same pace as inflation (or slightly more) to prevent any further deterioration of staff or facilities
- likely* . Maintaining the present dollar level of operating support from the U.S. government during the recovery period
- . Continuing peace in the country.

### (2) A "Current Service" Projection to 1986-87 Shows a Balanced Operating Budget Under Workable Assumptions

- . Exhibit II-2 shows year-by-year projections using the following assumptions:
  - U.S. inflation = 10 percent/year
  - Lebanese inflation = 15 percent/year
  - Exchange rate = 4.0 LL/US\$
  - Enrollments = no change

EXHIBIT II-2  
American University of Beirut  
Projection of Income and Expense for  
Current Service Levels - 1983-87

	1983-84 @ 4.00			1984-85 @ 4.00			1985-86 @ 4.00			1986-87 @ 4.00			COST RECOVERY BY AREA (PERCENT)			
	EXP \$	INC \$	NET \$	EXP \$	INC \$	NET \$	EXP \$	INC \$	NET \$	EXP \$	INC \$	NET \$	83-84	84-85	85-86	86-87
HEALTH SERVICES	37418	39025	1607	42708	44672	2165	48760	51589	2829	55683	58332	3648	104	105	106	107
EDUCATION & RESEAR													114	121	126	131
AFS	2108	1821	-287	2408	2248	-161	2753	2681	-72	3147	3198	51	88	93	97	102
A&S	7102	8858	1755	8024	11018	2995	9070	13183	4123	10257	15796	5538	125	137	145	154
E&A	2295	3654	1359	2594	4546	1952	2933	5443	2510	3318	6517	3199	159	175	186	196
MED	4317	2582	-1735	4948	3214	-1732	5668	3848	-1819	6486	4810	-1887	60	65	68	71
PUB H	776	999	224	880	1231	351	998	1488	468	1133	1747	614	129	140	147	154
NURS	542	718	176	618	833	235	705	887	283	804	1167	363	132	138	142	145
DEEP	1187	1782	594	1350	2192	841	1538	2610	1074	1748	3109	1360	150	162	170	178
LIBRARIES	1984	0	-1984	2229	0	-2229	2531	0	-2531	2875	0	-2875	0	0	0	0
STU SVC	1130	1687	557	1294	1940	646	1483	2231	748	1899	2568	669	149	150	150	151
STU AID-FUNDED	237	237	0	260	260	0	286	286	0	315	315	0	100	100	100	100
STU AID-UNFUNDED	892	0	-892	1026	0	-1026	1180	0	-1180	1357	0	-1357	0	0	0	0
RADAC	189	2365	2186	226	2602	2375	257	2882	2605	281	3148	2856	1187	1151	1115	1080
SPONSRD RESEARCH	407	407	0	448	448	0	492	492	0	542	542	0	100	100	100	100
RESTRCT & CONTRA	0	1221	1221	0	1385	1385	0	1570	1570	0	1781	1781	NA	NA	NA	NA
AUX ENTERPRISES	3575	3607	32	4081	4123	42	4880	4713	53	5322	5380	58	101	101	101	101
GENERAL													88	64	62	60
GEN ADMIN & INST	4512	0	-4512	5244	0	-5244	5964	0	-5964	6786	0	-6786	0	0	0	0
PHYS PLT O&M	5094	0	-5094	5850	0	-5850	6718	0	-6718	7718	0	-7718	0	0	0	0
NEW YORK OFFICE	728	0	-728	801	0	-801	881	0	-881	969	0	-969	0	0	0	0
PRES CONTINGENT	53	0	-53	61	0	-61	67	0	-67	73	0	-73	0	0	0	0
ENDOWMENT INCOME		1086	1086	0	1205	1205	0	1328	1328	0	1458	1458	NA	NA	NA	NA
GIFTS-UNRESTRTD		823	823	0	908	908	0	988	988	0	1098	1098	NA	NA	NA	NA
USGOVT OP SUPPR		3850	3850	0	4235	4235	0	4659	4659	0	5124	5124	NA	NA	NA	NA
IND COST RECOVER		33	33	0	38	38	0	40	40	0	44	44	NA	NA	NA	NA
OTHER INCOME		1133	1133	0	1262	1262	0	1407	1407	0	1568	1568	NA	NA	NA	NA
FAC SAL INCREASE	0	0	0	0	0	0	0	0	0	0	0	0				
TOTAL AUB	74839	75900	1261	85050	88578	3528	88843	102421	5478	110335	118510	7875	102	104	106	107

- Tuition increases (amount exceeding inflation)
  - 1983-84 - 15 percent
  - 1984-85 - 10 percent
  - 1985-86 - 5 percent
  - 1986-87 - 5 percent
- Salary increases = inflation rate
- All other revenues and expenses (including grants from U.S. Government) = inflation
- . By taking only mild action to 'catch-up" on tuition, without any "catch-up" increases elsewhere, AUB can be financially solvent if it keeps pace with future inflation.
- . The financial condition of AUB can be further improved if more aggressive action is taken.

(3) Projections in Which Tuition is Raised to at Least 50 Percent of "Full Cost" Tuition in 1983-84 and Beyond Provide Even More Favorable Results

- . Exhibit II-3 shows year-by-year projections for 1983-87 under the following assumptions:
  - Inflation and exchange rates the same as Exhibit II-2
  - All tuition adjusted to 50 percent of "full cost" tuition beginning in 1983-84, plus a 10 percent further increase in engineering tuition, on top of a cross-the-board annual increase in tuition of 10 percent over the inflation rate through 1986-87
  - Faculty and professional staff salary increases in excess of the inflation rates by the following amounts:
    - 1983-84 - 20 percent
    - 1984-85 - 10 percent
    - 1985-86 - 10 percent
    - 1986-87 - inflation rate

EXHIBIT II-3  
American University of Beirut  
Projection of Income/Expense - Scenario I

	1983-84 @ 4 00			1984-85 @ 4 00			1985-86 @ 4 00			1986-87 @ 4 00			COST RECOVERY BY AREA (PERCENT)			
	EXP \$	INC \$	NET \$	EXP \$	INC \$	NET \$	EXP \$	INC \$	NET \$	EXP \$	INC \$	NET \$	83-84	84-85	85-86	86-87
HEALTH SERVICES	37418	39023	1607	42708	44874	2165	48780	51599	2819	55683	59332	3648	104	105	106	107
EDUCATION & RESEAR													124	133	142	153
AFS	2108	1836	-272	2409	2267	-142	2753	2800	47	3147	3462	315	87	94	102	110
A&S	7102	9498	2396	8024	11820	3796	9070	14714	5644	10257	18223	8066	134	147	162	179
ESA	2295	3853	1558	2594	4784	2200	2933	5967	3034	3318	7430	4113	188	185	203	224
MED	4317	4088	-228	4946	5096	150	5668	6355	687	6496	7926	1429	95	103	112	122
FUB H	776	966	192	880	1191	312	998	1468	470	1133	1811	677	125	135	147	160
NURS	342	847	505	618	1013	395	705	1214	510	804	1458	654	156	164	172	181
DEEP	1137	1727	590	1350	2123	773	1536	2613	1077	1748	3220	1472	145	157	170	184
LIBRARIES	1964	0	-1964	2229	0	-2229	2531	0	-2531	2875	0	-2875	0	C	0	0
STU SVC	1130	1687	557	1294	1940	646	1493	2231	748	1699	2588	867	149	150	150	151
STU AID-FUNDED	237	237	0	260	260	0	286	286	0	315	315	0	100	100	100	100
STU AID-UNFUNDED	892	0	-892	1026	0	-1026	1180	0	-1180	1357	0	-1357	0	0	0	0
RADAC	188	2365	2166	228	2602	2375	257	2662	2605	291	3148	2856	1187	1151	1115	1080
SPONSRD RESEARCH	407	407	0	448	448	0	492	492	0	542	542	0	100	100	100	100
RESTRCT & CONTRA	0	1221	1221	0	1385	1385	0	1570	1570	0	1781	1781	NA	NA	NA	NA
AUX ENTERPRISES	3575	3607	32	4081	4123	42	4880	4713	53	5322	5390	68	101	101	101	101
GENERAL													66	64	62	60
GEN ADMIN & INST	4812	0	-4812	5244	0	-5244	5964	0	-5964	6786	0	-6786	0	0	0	0
PHYS PLT O&M	5094	0	-5094	5850	0	-5850	6719	0	-6719	7718	0	-7718	0	C	C	C
NEW YORK OFFICE	728	0	-728	801	0	-801	881	0	-881	968	0	-968	0	0	0	0
PRES CONTINGENT	55	0	-55	61	0	-61	67	0	-67	73	0	-73	0	0	0	0
ENDOWMENT INCOME		1096	1096	0	1205	1205	0	1328	1328	0	1458	1458	NA	NA	NA	NA
GIFTS-UNRESTRD		825	825	0	908	908	0	998	998	0	1098	1098	NA	NA	NA	NA
USGOVT OF SUPPRT		3850	3850	0	4235	4235	0	4639	4639	0	5124	5124	NA	NA	NA	NA
IND COST RECOVER		33	33	0	36	36	0	40	40	0	44	44	NA	NA	NA	NA
OTHER INCOME		1133	1133	0	1262	1262	0	1407	1407	0	1568	1568	NA	NA	NA	NA
FAC SAL INCREASE	2951		-2951	3248		-3248	3571		-3571	3571		-3571				
TOTAL AUB	77590	78302	711	88296	91581	3285	100514	107315	6801	114105	125896	11881	101	104	107	110

- No change in enrollment
- All other revenues and expenses increase exactly at the inflation rates for each currency
- . Exhibit II-4 shows the projected levels of tuition and fees, by faculty, which would result from the assumptions used in Exhibit II-3.
  - The dollar value of Arts and Sciences tuition would rise by 173 percent by 1986-87; but 75 percent of that rise is needed merely to keep pace with the 15 percent projected annual inflation.
  - For Arts and Sciences, the "real" increase in tuition by 1986-87, net of inflation, totals 99 percent over the current level.
  - For Medicine, the real increase in tuition, net of inflation, totals 225 percent of the current level. Nearly half of this increase occurs in the first year in order to raise the ratio of regular tuition to full cost tuition to 50 percent.
- . This scenario provides a small but growing surplus in the operating budget in each year.
- . Simulations of alternative exchange rates in the range of 5.0 down to 3.0 could cause the cost coverage ratio for AUB to vary between 105 and 108 percent, respectively, in 1986-87.
- . The cost coverage ratio could be raised by increasing prices for auxiliary enterprises and the hospital at more than the inflation rate.
- . Higher cost coverage ratios such as those indicated provide opportunities for increased investment in facilities, equipment, salaries, etc.

EXHIBIT II-4  
 American University of Beirut  
 Projection of Tuition Levels for Scenario I,  
 1983-87

AUB TUITION & FEES  
 (LL4=US\$1)

FACULTY	INITIAL ADJUSTMMT	U.S. \$				
		82-83	83-84	84-85	85-86	86-87
A&S	1.12	2801	3921	4902	6127	7659
E&A	1.10	3398	4672	5841	7301	9126
MED	1.68	4327	9087	11359	14199	17749
NURSING	1.54	2181	4199	5248	6561	8201
AFS	1.05	3155	4141	5177	6471	8088
EDUC	1.00	3307	4134	5187	6459	8074
PUB H	1.00	3118	3895	4869	6088	7607

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(4) In All Simulations, the Outcomes Are Not Greatly Sensitive to Variations in the Exchange Rate or to Inflation Rates, Provided That Prices Are Raised Accordingly

- . Actual magnitudes of the budgets will vary (in dollars), particularly in units with a high percentage of income or expenses in Lebanese currency; but overall coverage ratios are not dramatically impacted.
- . Changes in prices should be linked to the inflation rates and to targetted cost coverage ratios, which will then determine the possible amount which can be committed to additional investment and salary increases.

3. PLANNING AND BUDGETING

(1) The Existing Budget Process is Inadequate

- . Under the previous President, budget preparation was centralized, with limited input from deans and department heads. However, expenditure authority of approved budgets was decentralized with almost no central control on spending.
- . The present process of budget formulation does not address in systematic form income and expenses beyond the next year, nor does it provide the information for systematically screening alternatives for program changes, equipment needs (new and replacement), or capital requirements. President Kerr has indicated his desire to implement such measures but a major effort will be needed to do so.
- . The budget process is not well understood by many unit managers; and the guidelines provided are too general to obtain good results:
  - Many unit managers seem unsure of what is expected of them
  - There is little or no documentation to support proposals; and there is no consistency in presentation format.

- Options are seldom indicated; there is no basis for setting priorities or ranking possible alternatives among different departments.
- Comparisons of costs with expected benefits or resulting revenues are rare and mostly optimistic rather than analytic.

(2) A Five-Year Capital Budget Should Be Developed Covering Prospective Facilities And Major Equipment Needs

- . Current efforts to establish a five-year capital budget cover only "fixed equipment" and facilities serviced by Physical Plant. Other important items, such as laboratory equipment needed by the various academic and medical departments, are not included; but they should be.
- . All major equipment (fixed or movable) and all facilities (construction or modification) proposed for acquisition during the next five years, should be included.
  - Additions should be distinguished from replacement items (which should indicate the age, condition, and use of the existing items).
  - Costs should be stated in constant-value terms for the initial budget year (that is, using 1983 constant dollars for a budget whose first year is 1983), which can then be adjusted as necessary for variations in inflation, exchange rates, discount rates, etc.

(3) A Program Budget Covering the Next Three to Five Years Should be Developed, Distinguishing Between "Current" and "Modified" Levels of Operations for Both Costs and Revenues

- . A "current service" budget should be projected ahead under likely scenarios for inflation, exchange rates, etc., in order to understand the impact on costs and revenues of continuing the current level of program activities under such varying conditions.

- . Proposals for expanding or reducing the level of operations of individual units should be separately itemized, analyzed, and evaluated for approval in competition with proposals from all other units of the institution.
    - The impact of each proposal on costs, revenues, and non-financial factors should be estimated, along with the degree of uncertainty associated with these values.
    - Such a procedure enables choices to be made and priorities to be set on a more consistent basis across all units of the institution.
- (4) More Analysis Is Needed Of The Benefits And Revenue Likely To Result From Proposed Expenditures
- . Deans and department heads should provide more analytical justification for expenditures they propose, including direct and indirect effects on costs and revenues, quality factors, and other non-financial costs and benefits. These justifications should then be examined closely by the deans, the budget office, and the President's office to evaluate their reliability and possible inter-departmental opportunities or trade-offs.
  - . Because many department heads and others may be unfamiliar with the kind of analysis and justification required in sound budgeting, a day-long training program should be developed and carried out to assure that all managers, from the department heads on up, understand what is needed and why. This program will also provide the President with the occasion to provide his personal directions and priorities to guide the preparation of budget submissions.
- (5) Planning And Budgeting Should Be More Closely And Effectively Linked
- . Planning should focus on the formulation of alternative strategies for the University such as changes in emphasis within or among programs, and on the assessment of the consequences of such changes on the institution's financial condition, staff, students, and overall program quality. This process should set priorities for investment or retrenchment among the various programs, which should be applied during the budgeting process.

- . Budgeting should establish shorter term revenue and expenditure agreements for the various units of the institution within the framework of the overall plan.

(6) Budget Preparation Should be Scheduled More Explicitly

Exhibit II-5 following this page shows a budget preparation schedule providing appropriate time for the requesting/reviewing/recommending process.

(7) A Financial Planning Model Developed As Part Of This Study Can Be Used By AUB To Simulate Alternative Financial Plans For The Period 1983-87

- . The model uses current data from the budget and controllers offices at AUB, then projects future financial conditions under different rates of U.S. and Lebanese inflation, exchange rates, enrollment levels, tuition rates, salary increments, etc.
- . The model operates on an Apple II microcomputer with VISICALC and can be easily modified by AUB staff to handle a wide range of possible changes in program structure.
- . A prototype model for academic faculties is also provided, using Arts and Sciences as the example, for examining detailed changes in tuition levels, salaries, expenses, etc.

4. FINANCIAL REPORTING AND CONTROL

(1) Formats Of Financial Reports And Budgets Should Be Improved To Focus On Key Information

- . Most improvements in reporting can be made immediately; however, some changes can only be implemented when new computer systems are in place.

EXHIBIT II-5  
 American University of Beirut  
 Proposed Budget Preparation Schedule\*

Milestone	Step	Month
1.	President issues written guidelines describing his policies, priorities, and standard budget assumptions (e.g., enrollment, inflation, tuition, salary increases, capital expenditures); budget office issues submission instructions and forms, including estimated expenditures for current year.	October
2.	Vice-presidents and deans provide gross estimates to President and identify discussion issues.	November
3.	President briefs Board on budget philosophy and levels; requests policy guidance on key issues.	December
4.	Vice-presidents and deans provide detailed budget request submissions and justification.	January
5.	President reviews budget requests in hearings and submits recommended budget to Board.	February
6.	Board approves budget.	March

\* Assuming budget for fiscal year beginning July 1 is approved by the Board of Trustees at its March meeting.

- . The present practice of showing all financial data in U.S. dollars creates more confusion than insight. Instead, financial reports and budgets should present amounts in the actual currency involved.
  - While swings in the exchange rate between U.S. dollars and Lebanese pounds can cause a major "apparent" impact on the dollar value of line items that are principally transacted in Lebanese pounds, the overall effect of the exchange rate on the AUB budget is relatively small. For example, the difference between exchange rates of 3.0 and 5.0 on the 1982-83 AUB budget is a net change in the bottom line of only about \$300,000 -- less than half of 1 percent -- since the share of income and expenses represented by dollars is between 20 percent and 25 percent in each case.
  - There is no harm in showing major function totals converted into dollars for simplicity in some cases; but budgeting and reporting in a single converted currency -- especially the currency representing no more than a fourth of the budget -- does not provide the necessary degree of control.
  - Exhibit II-6 presents an analysis of AUB's 1982-83 revised budget which shows income and expenditure by currency for major functions and units based on information provided by the AUB planning office. (Omitted data were not available without a special computer run, which was not feasible at the time.)
- . Financial reports prepared by the Controller's office should provide income and expense data by major unit or function, showing budget, actual, and variances, by currency. The functional and unit categories shown below should be used as a guide. In order to present the full budget and variance data, three separate sheets should be used:

Page 1 - Net Amounts  
Page 2 - Income Amounts  
Page 3 - Expense Amounts

EXHIBIT II-6  
American University of Beirut  
Analysis of Income and Expense by  
Currency 1982-83 Revised

REVISED 1982-83 BUDGET

U S & L	4 20 LL ***** EXPENSE *****				***** INCOME *****				***** NET *****				
	LL	LL	TOT: @ 4.20	%	LL	LL	TOT: @ 4.20	%	LL	LL	TOT: @ 4.20	% COST COVERED	% TOTAL COST
HEALTH SERVICES	5864	107713	31510	19	100	135358	32328	0	-5764	27844	818	103	50
INPATIENT CARE													
1ST CLASS REV													
2ND CLASS REV													
3RD CLASS REV													
ADM SVCS EXP													
FISCAL SVC EXP													
GEN SVCS EXP													
NURS SVCS EXP													
OTHR PROF SVCS													
OUTPATIENT CARE													
PRIVATE CLINICS													
(NEED BREAKDOWN HERE)													
EDUCATION & RESEARCH												104	31
AFS	282	8254	1771	18	230	4720	1374	18	-32	-1534	-397	78	
A&S	2808	14725	6114	43	458	25630	6561	7	-2148	10905	447	107	
E&A	825	4826	1974	42	188	10575	2707	7	-636	5749	733	137	
MED	328	13758	3604	9	117	7530	1910	6	-211	-6229	-1694	53	
PUB H	221	1852	862	33	181	2505	757	21	-60	653	85	114	
NURS	100	1504	458	22	393	820	588	87	283	-684	130	128	
DEEP	278	3074	1008	27	307	4388	1354	23	31	1321	346	134	
LIBRARIES	541	4763	1675	32			0	0	-541	-4763	-1675	0	
STU SVC	93	3574	844	10		5867	1397	0	-93	2293	453	148	
STU AID-FUNDED	215		215	100	215		215	100	0	0	0	100	
STU AID-UNFUNDED		3104	739	0			0	0	0	-3104	-738	0	
RADAC	58	479	170	33	2150		2150	100	2084	-479	1880	1265	
SPONSRD RESEARCH	370		370	100	370		370	100	0	0	0	100	
RESTRCT & CONTRA			0	0	385	2852	1044	35	365	2852	1044	NA	
AUX ENTERPRISES	552	10324	3010	18	458	10790	3028	15	-93	496	18	101	5
HOUSING FAC/STF													
HOUSING WOMEN ST													
HOUSING MEN ST													
FOOD SVC													
BOOKSTORE													
PARKING FACILIT													
APRC AUX ACTI													
VENDING MACHINES													
(NEED BREAKDOWN HERE)													
GENERAL												71	14
GEN ADMIN & INST	1094	11857	3917	28			0	0	-1094	-11857	-3917	0	
PHYS PLT O&M	141	17178	4231	3			0	0	-141	-17178	-4231	0	
NEW YORK OFFICE	682		662	100			0	0	-682	0	-862	0	
PRES CONTINGENT	50		50	100			0	0	-50	0	-50	0	
ENDOWMENT INCOME			0	0	888		888	100	888	0	888	NA	
GIFTS-UNRESTRTD			0	0	750		750	100	750	0	750	NA	
USGOVT OP SUPPRT			0	0	3500		3500	100	3500	0	3500	NA	
IND COST RECOVER			0	0	30		30	100	30	0	30	NA	
OTHER INCOME			0	0	740	1109	1004	74	740	1109	1004	NA	
TOTAL AUB	14278	204985	63084	23	11551	212151	62063	18	-2727	7186	-1021	88	

- Variances exceeding a specified level should be explained or reconciled on attached sheets, as a matter of routine.
  - If a variance in a function or unit exceeds one-half of one percent of the AUB total budget or 15 percent of the budget for that function or unit during the preceding quarter or year-to-date, an explanation should be provided.
  - An assessment of the prospects for recovery and possible effects on other functions or units should be noted.

(2) Financial And Administrative Staff And Other Analytical/Control Resources Should Be Increased

- The controller function is understaffed. Both the hospital and the academic units of AUB are large enough to warrant full-time controllers for each, supported by competent professional staff.
- The budget function is understaffed, with only two professionals. The staff should be expanded to three professionals to allow time for systematic collection and analysis of operations data (often called "institutional research" in a university, "operations research" or "industrial engineering" in business firms, and "program analysis" in government).
- The added cost can be more than returned by improved cost-effectiveness and revenues.

### III. ORGANIZATION, MANAGEMENT AND ADMINISTRATION

With over 2,500 employees and a \$80 million annual budget, AUB is a large institution requiring organization structures and management processes designed to fit its unique circumstances. Because professional autonomy is particularly prized in academic institutions, a delicate balance must be struck in matters of organization and management between university-wide concerns and those of individual faculties and support organizations. In this chapter, these matters are addressed in sections dealing with:

- . A candid organizational diagnosis
- . Organizational needs and objectives
- . Organizational options and recommendations
- . Management practices
- . Administrative processes
- . Computer use
- . AUB office in the United States.

#### 1. A CANDID ORGANIZATIONAL DIAGNOSIS

##### (1) AUB Has Experienced Considerable Organizational and Leadership Turbulence In Recent Years

- . In the years since 1975, the office of President of the University has been filled by five incumbents, two on an acting basis.
- . Vice presidential and dean positions have experienced similar turnover.
- . This leadership turbulence has occurred over the same period that the environment outside the University has been unstable, adding to the uncertainty surrounding the University's direction and future.

Admin.  
Unit

(2) Presently There Are Many Voids In Leadership Positions At AUB

Within the present organization structure:

- . One of the four vice president positions is filled by an acting incumbent
- . Four of the five deanships are filled by acting incumbents
- . The hospital administrator position is vacant
- . A dozen key administrative positions in the University and the hospital are vacant or being filled by acting incumbents.

(3) Uncertainty Exists Among Many University Administrative Officials As To Their Responsibilities, Functions And The Objectives They Are Expected To Achieve

- . This judgmental conclusion comes from several dozen interviews and scores of hours of observation and discussion.
- . Many University personnel are eagerly awaiting action that is expected to be taken following the delivery of this report and anticipate that clarification of their roles will make their working lives happier and more productive.

(4) The Board Of Trustees Performance Is Seen To Be Imperfect

- . Board members have expressed frustration for several years about inadequate financial information they receive. Several have made extraordinary efforts to suggest improvements in financial management systems and practices, often essentially reworking information provided to the Board that they have found unsatisfactory.
- . Many faculty and administrative personnel at AUB express concern about the Board's "remoteness" and indifference to "campus views." Many trustees are rarely seen on the campus, and little explanation of Board actions is provided to the faculty.

(5) The Vast Bulk of AUB Alumni Are Seemingly Indifferent To Their Alma Mater, Though Some Signs of Reawakened Interest Are Appearing

- . The giving by alumni is extraordinarily low -- fewer than 2 percent of the alumni of record annually.
- . Alumni in Beirut are reputed to be more concerned with personal amenities in dedicated alumni facilities than they are in supporting the university in its overall needs and plans. This appears to be changing for the better.

(6) Little Evidence Exists Of "Teamwork" Among University Officers

- . Although faculty committees, notably the University Planning Committee, meet and deliberate regularly, the faculties seem to operate quite independently under direction of their respective deans.
- . Systematic interdisciplinary activity among members of the faculty is limited.

(7) These Diagnostic Comments Are All Made Within The Context of Enormous Admiration For The Exceptional Service Rendered By Faculty, Administrative, And Support Staff Alike During The Difficult Period Of The Summer 1982

- . Some of the negative organizational conditions may derive from the "letdown" following the extraordinary efforts and tensions of the summer and preceding months.
- . However, planning for the improvement of organization and management should move ahead from the present conditions, particularly in light of the new university leadership deriving from the appointment of a new President last year.

2. ORGANIZATIONAL NEEDS AND OBJECTIVES

In designing appropriate organization structure and management processes for AUB, several needs and objectives of the University should be satisfied.

(1) Presidential Leadership Should Be Directed Both Inward Toward University Management And Outward Toward The External Communities With Which AUB Must Deal

- . The President of AUB must provide academic and professional leadership to a University faculty that has enormous admiration for his personal professional achievements and yearns for execution of the vision articulated in his Inaugural and Convocation addresses. Additionally, his personal preferences are to play a major role in shaping the academic program of the University.
- . Nevertheless, the outward responsibilities of the President are large and urgent. He must be attentive to the Board. He must build relationships with the new leadership of Lebanon and the Beirut community that holds in high esteem the President of the University. He must provide leadership to strengthening alumni relations and developing sources of funds for the University, both in region and in the United States.
- . While he can and should delegate parts of both inward and outward functions to his subordinates, he must stay involved in key aspects of both to provide the leadership necessary for the next several years.

(2) The American University Hospital Must Be Managed

- . The hospital is a major health care enterprise with its own sources of revenue that ought to cover its costs and expenditures, as detailed in Chapter VI.
- . The management processes and systems of the Hospital are seriously deficient, and opportunities exist to make substantial improvements in operations and revenues.

(3) University Financial Management - Now Badly Fragmented - Must Be Consolidated

- . Financial responsibilities are now arranged as follows:
  - The Budget Office reports to the University Vice President.
  - The University Controller reports to the Acting Vice President for Administration.

- The Director of Audits is temporarily detailed to assist with hospital accounting, and the internal auditing function is not being performed.
- The Hospital Controller position is vacant.
- The Vice President-New York with by far the longest tenure and experience in university financial matters, provides oversight to much of the University's financial reporting, but does not have formal line authority.

- John*
- . There is no "Abominable No-Man", no chief financial officer whom the President can hold accountable for the University's financial management.

(4) Development Functions Require Upgrading and Augmentation

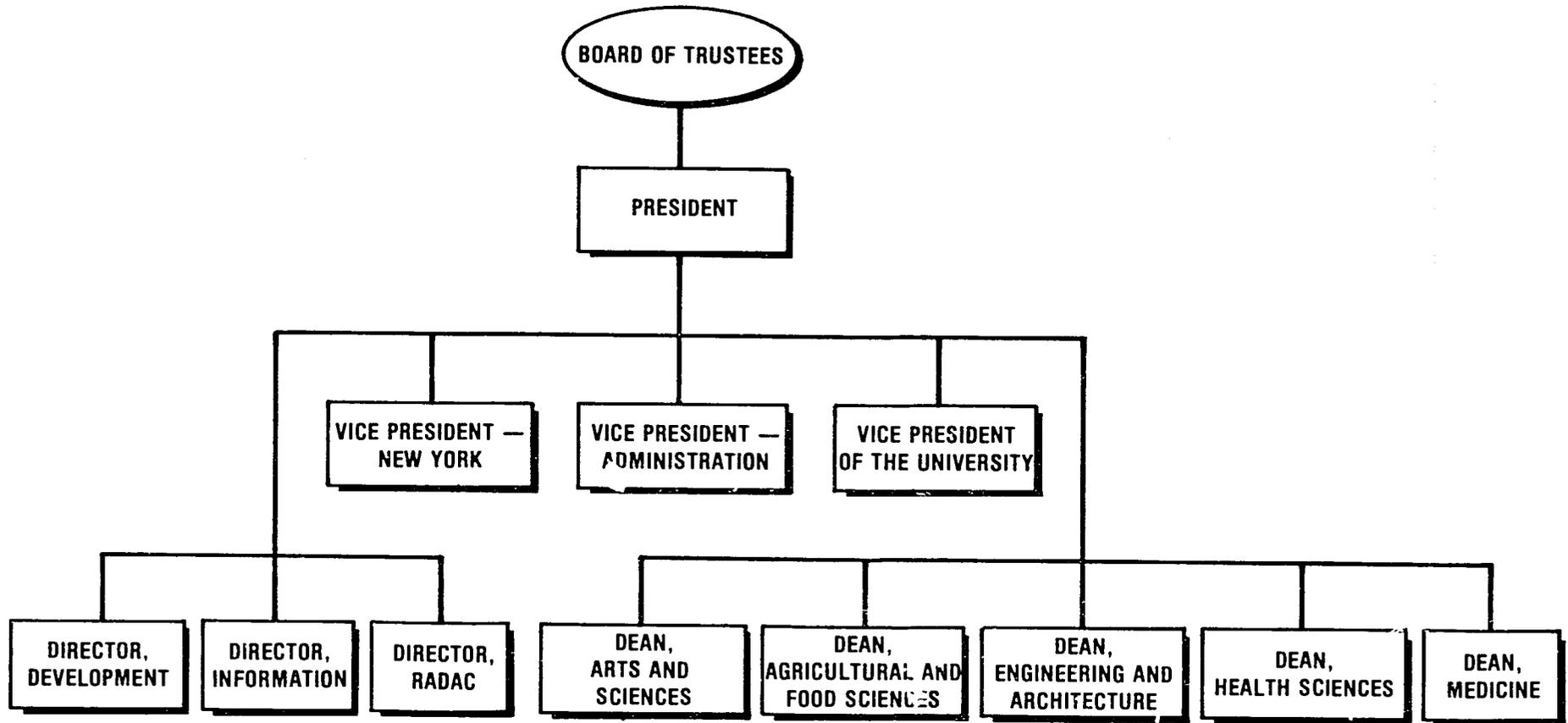
- . All agree that the University needs substantially expanded financial resources, many of which should come from philanthropic sources.
- . Developing funds from philanthropic sources is a specialized, long-term activity requiring sustained attention of senior persons.
- . The need for seeking funds on two different continents adds to the complexity and importance of this function, which has been under-staffed and under-performed for many years.

3. ORGANIZATIONAL OPTIONS AND RECOMMENDATIONS

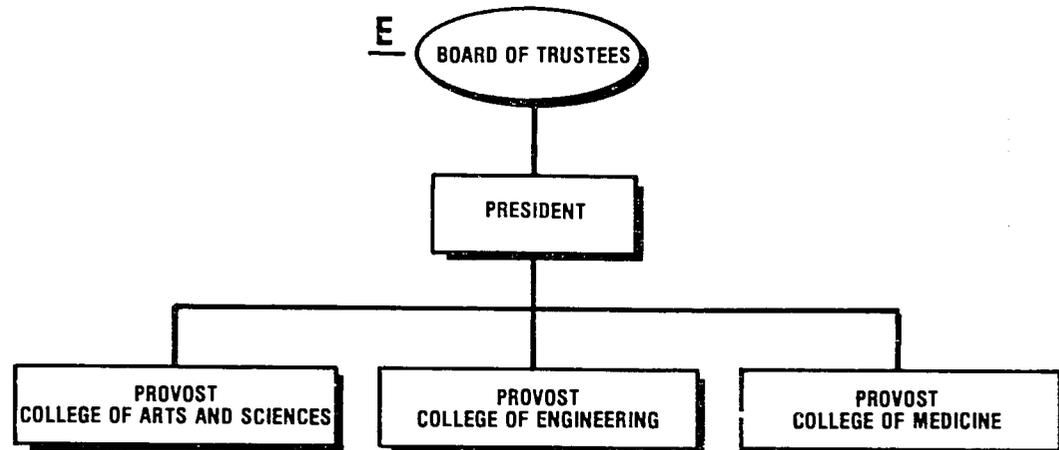
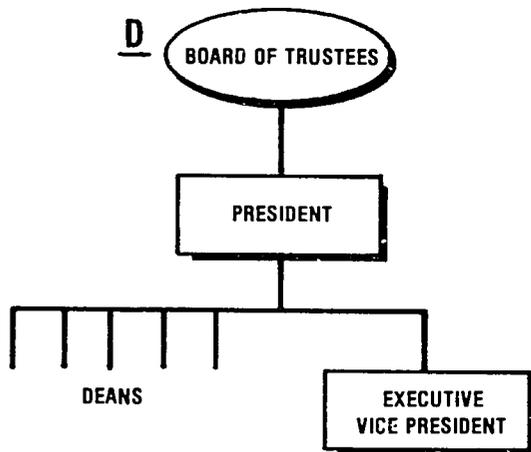
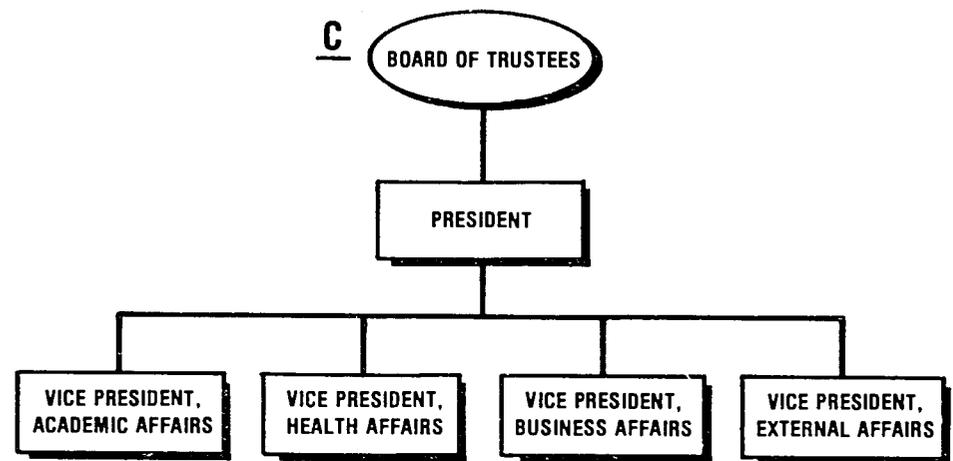
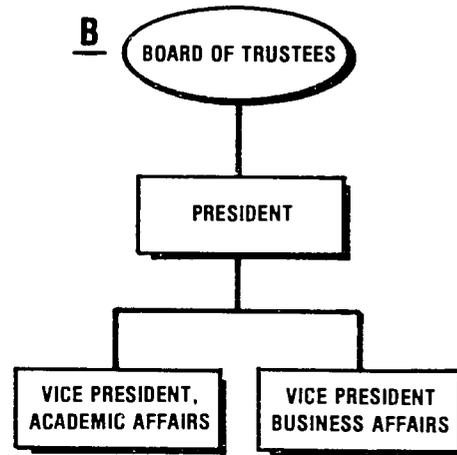
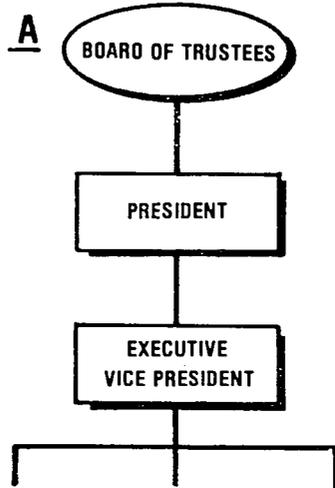
In light of the organizational needs and objectives described in Section 2, five options for the organizational structure of the University deserve consideration. Each of these options - in a generic form - has been implemented successfully in universities across the world. These options are depicted in Exhibit III-2 and can be compared to AUB's current organization plan shown in Exhibit III-1.

- John*
- . Option A - "Executive Deputy" provides an Executive Vice President reporting to the President. All officers of the University report to the Executive Vice President, who thus is principally an internal operating officer, freeing the President to devote his time to external concerns.

**EXHIBIT III-1**  
**American University of Beirut**  
**CURRENT ORGANIZATION PLAN**



**EXHIBIT III-2**  
**American University of Beirut**  
**ALTERNATIVE ORGANIZATION PLANS**



- Option B - "Dual Subordinate" creates two Vice Presidents - one for academic affairs and one for business affairs.
- Option C - "Four Vice Presidents" provides a separate Vice President for Health Sciences, whose duties include the management of the hospital and the Faculty of Medicine, as well as Vice Presidents for External Affairs, Academic Affairs, and Business Affairs.
- Option D - "Direct Reporting Deans" arranges for all of the deans to report to the President and for all other university matters to be handled by an Executive Vice President who reports also to the President.
- Option E - "Independent Colleges" provides for highly autonomous colleges whose heads each report to the President. Each college handles its own tuition, enrollment, curriculum, fund raising, and operates with substantial independence.

(1) The Proposed Organization Plan for AUB Tailors Option C to AUB's Situation

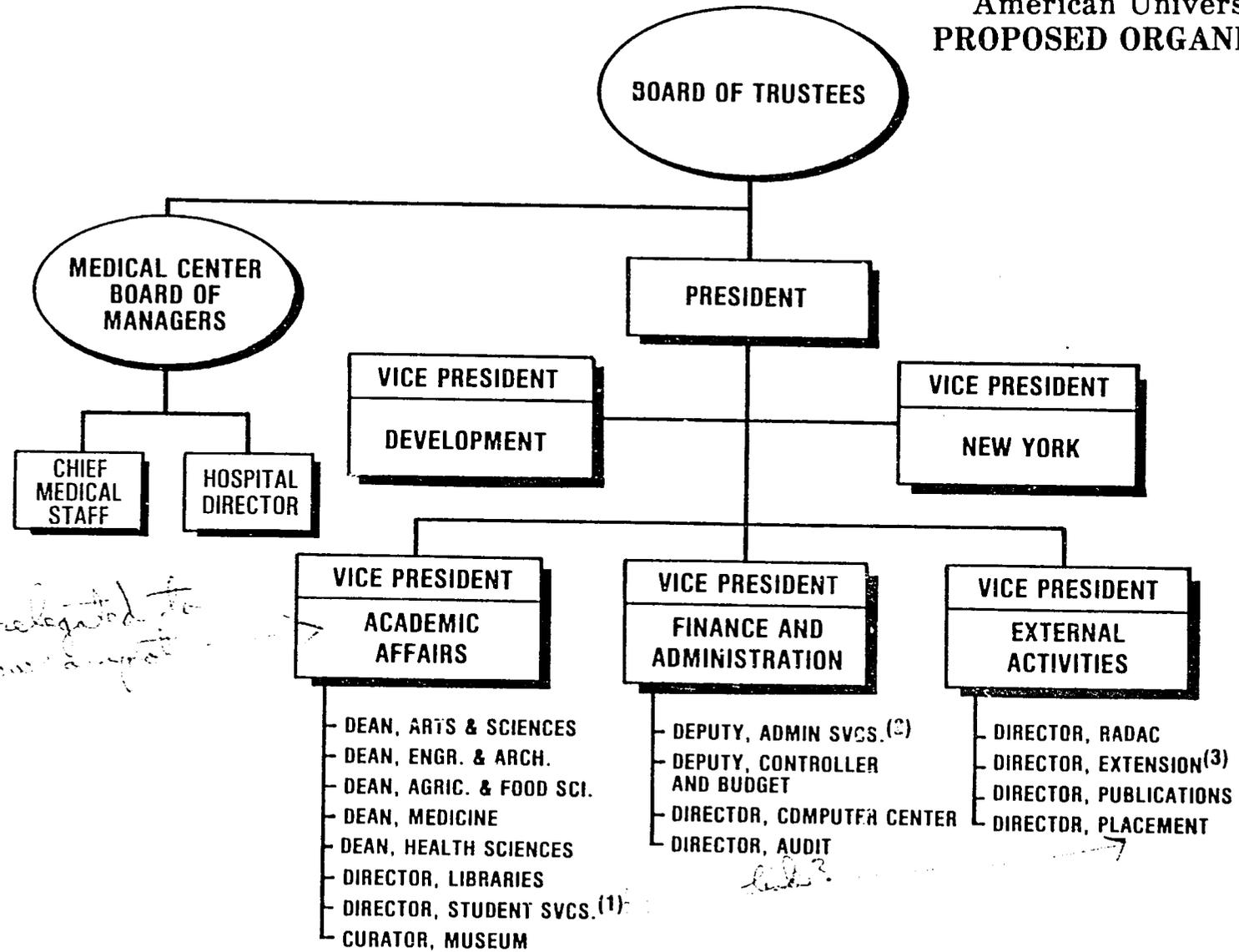
- Exhibit III-3 portrays this plan, which is characterized by:
  - Three Vice-Presidents overseeing major operations of the University: academic affairs, finance and administration, and external affairs.
  - Two Vice Presidents performing staff functions with more limited supervisory responsibilities: development and New York.
  - A Medical Center Board of Directors, hospital director and medical staff chief. The Board of Managers would be appointed by the Board of Trustees and chaired by the President.

The rationale for this organization plan is that it:

- Provides a strong management team with clearly defined responsibilities working together under the President. The five Vice Presidents, the hospital director, and the President would form the President's Cabinet -- the University's executive organ for operating management.

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**EXHIBIT III-3**  
**American University of Beirut**  
**PROPOSED ORGANIZATION PLAN**



*almost relegated to too low a spot*

*lib?*

(1) SUPERVISING BURSARY STUDENT'S OFFICE, REGISTRAR, STUDENT SERVICES  
 (2) SUPERVISING HOUSING, PROTECTION, PHYSICAL PLANT, PERSONNEL, PURCHASING, SUPPLY  
 (3) EDUCATION DEPARTMENT MOVES TO ARTS AND SCIENCES

- Balances the President's role between internal and external responsibilities and gives him a sound span of control.
- Provides management leadership for each of the University's major functions -- so that problems can be handled short of the President's office.
- Recognizes the need for special management of the hospital -- an enterprise of the University with separate operations, revenues, and clientele and which employs more than half of the University's personnel. (Chapter VI, Section 2 amplifies this rationale and describes proposed responsibilities of the proposed Board of Managers.)

*hospital employees more than 1/2 of AUB personnel*

(2) The Board Of Trustees Should Consider Appointing An Advisory Council To Expand The University's Reach Throughout The Region And The World

Many universities have used this technique in one form or another to associate distinguished alumni and citizens with the university. Such a council both provides advice to the Board concerning directions and programs of the University, and is an outreach by the University to the communities of which the council members are associated.

- . Renewable term appointments of three years are appropriate.
- . Regular reports and information should flow to such an Advisory Council from the President.
- . The Council should meet at least annually for a day or two at AUB to become familiar with overall programs and faculty projects, to mingle with the students, and otherwise to create an environment in which the Council members can serve as ambassadors between their constituencies and the University.
- . The annual cost -- travel expenses and communications -- would approximate \$100,000 for a 20-person Council.

*proposed Advisory Council*

#### 4. MANAGEMENT PRACTICES

##### (1) Senior University Officials Should Improve Management Communications And Teamwork

- . Implementation of the proposed organization plan will help by creating defined and balanced authority and responsibility.
- . Regular - probably weekly - meetings of the President's Cabinet should seek unified action on the entire range of significant University management issues -- not be simply a "show and tell session" at which each participant reports his activities and plans.
- . All senior officials should have an annual statement of personal and institutional objectives - confirmed by the President - that are the foundation for planning and performance evaluation.

##### (2) A System Of Management Reports Should Be Established

- . Reports by the Vice-Presidents and hospital director to the President should be:
  - Regular and prompt -- probably monthly by the tenth day
  - Prospective -- dealing with the outlook of relevant events (only the future can be managed)
  - Focused on performance against plan -- both quantitatively and qualitatively
  - Reasonably topical -- covering such "universals" as personnel, finance, enrollment/patients, etc., plus particular aspects of each officer's operations.
- . Senior officers should create similar reporting systems in their own organizations, both for their own management purposes and to "feed" their report to the President.

- . The President should report regularly to the Board of Trustees -- probably quarterly. These reports would present both descriptive information about University happenings (including faculty achievements, e.g.) and planning or evaluation assessments.

## 5. ADMINISTRATIVE PROCESSES

### (1) Although Some Support Personnel Work Very Hard, Equipment And Systems Deficiencies Limit Productivity

- . Telephone system inadequacies cause much wasted time.
- . Equipment and supply inventory and procurement systems are cumbersome.
- . Lack of strong management controls on procurement has led to excessive numbers of some equipment (e.g. photocopying machines -- every department wants its own) and to purchases of less than the most cost-effective equipment

### (2) No Adequate Cost-Accounting Information Or System Exists

### (3) Performance Of Some Support Functions By Contract Rather Than Employees Should Be Examined

- . Contracting out is already used in several functions -- lift maintenance, radio paging, some janitorial, glazing, and some roof maintenance.
- . Possibilities include more building and grounds maintenance, laundry and food service.
- ✓ . Requisite to contracting out is a local industry of relevant and interested contractors, which in Beirut is still somewhat unsettled.
- . Significant issues of fair treatment of current employees, security, reliability -- as well as real cost comparisons -- require detailed analyses before decisions are made.

### (4) Improvements In Administrative Processes Require Analytical and Implementation Resources -- By Employment Or Contract

## 6. COMPUTER USE

As part of its renewal program, AUB should move ahead with plans to modernize and expand its computing facilities and activities. A three-phase plan should be established that will put AUB in the forefront of information handling technology among Middle Eastern institutions.

(1) Phase I - Approved By The Board of Trustees In December 1982 - Will Replace The Two Computers Now Serving The University And Its Hospital

- . The replacement computer(s) will be connected to a network of some 30 terminals across the campus.
- . Current hospital and university administrative applications will be converted to the new computer(s) which will also be made available on a limited basis to faculty and students for academic purposes.

(2) Phase II Plans Should Be Launched In 1983 To Provide A Level Of Computer Literacy To AUB Graduates

- . After appropriate planning and equipment installation:
  - Computer education should be included as part of the University's core curriculum -- a requirement for graduation in all facilities.
  - Faculty and students alike should be encouraged to use computer technology in their research, and University library operations should be automated.
  - A department or "sub-faculty" of computer science should be established to advance the teaching of this growing discipline at AUB.
  - Extensive computer data bases and diagnostic algorithms should be installed as part of medical school and hospital operations.
- . The computer equipment configuration of Phase I will need to be augmented or modified to enable Phase II to be fully implemented.
- . Hospital applications should be expanded.

(3) A Longer Term Phase III Should Be Conceived That Would Enable AUB To Become A Potential Computer/Communications/Information Center Serving Communities Of Interest Beyond The University, Perhaps On A Regional Basis

- . The functions of such a Center could include:
  - Assembling and managing data bases on, for example, natural resources, diseases, trade patterns, and other topics of widespread interest to university and other business, professional and government communities
  - Providing advanced computing services to organizations in Lebanon or the region unable to obtain their own appropriate equipment or trained experts.
  - Serving as a communications and switching center providing linkages via satellites to computers and data bases elsewhere in the world.
- . Planning for all this will require several years, so that implementation would not occur until the latter part of the decade.
- . A successor generation of hardware beyond that ordered for Phase I will almost surely be required.

7. AUB OFFICE IN THE UNITED STATES

*Handwritten: New York office*  
(1) Two Changes in the Immediate Future Create Opportunity for Reviewing Present Arrangements for the AUB Office in the U.S.

- . The present New York office space is scheduled to be vacated by May because the lease expires.
  - A move to another building is likely.
  - Continuing association with the International Institutional Services can be reconsidered.
- . A significant expansion of development activities is likely to create need for additional staff and support resources.

(2) Several Factors Should be Considered:

- . The future roles of the principal professional personnel now in the New York office in light of organization changes and the President's priorities
- . The relative importance of a New York location for development purposes vis-a-vis Washington, D.C., for government-relations purposes.
- . The need for a New York address in light of AUB's New York state charter and accreditation
- . Working relationships with banks, accountants, investment advisors, lawyers, and procurement and shipping agencies
- . Cost
- . Convenience and service to University visitors from Beirut.

(3) The President Should Present Recommendations to the Board on the University's United States Office Arrangements

#### IV. CURRICULUM AND STUDENTS

Despite the hostile conditions under which the University has operated in recent years and the deterioration of quality in several areas, AUB academic programs continue to attract students seeking a solid education in the professions and a firm grounding in English and the arts and sciences. This provides a solid foundation for recovery and rejuvenation of AUB, led from AUB's existing areas of strength.

Curriculum and students are addressed in the following sections of this chapter:

- . Fields of Study
- . Students
- . Instructional Resources
- . Competitive Position With Other Institutions
- . Curriculum and Enrollment Strategies.

##### 1. FIELDS OF STUDY

###### (1) AUB Offers Studies in Five Major Professional Fields, Plus Basic Arts and Sciences

In 1981-82, the latest academic year completed, AUB awarded 1,332 degrees, of which approximately 80 percent were in science or professional fields. The fraction awarded in each of these major fields is as follows:

1981-82 degrees	. Arts	- 21%
	. Sciences	- 19
	. Engineering & Architecture	- 16
	. Medicine & Health Sciences	- 14
	. Agriculture & Food Science	- 12
	. Business	- 12
	. Education	- 4

Exhibit IV-1 provides more detailed data on degrees awarded for academic years 1980-81 and 1981-82.

EXHIBIT IV-1  
American University of Beirut  
Degrees Awarded - 1980-81 and 1981-82

Faculty	1980-81	1981-82	Faculty	1980-81	1981-82
<u>Arts and Sciences</u>	<u>566</u>	<u>700</u>	<u>Engineering &amp; Architecture</u>	<u>163</u>	<u>218</u>
. BBA	107	141	. B Arch	40	23
. BA	222	252	. BE	122	194
. BS	170	239	. ME	1	1
. MBA	34	21			
. MA	24	30	<u>Agriculture &amp; Food Science</u>	<u>131</u>	<u>160</u>
. MS	12	17	. BS	42	50
. Ph.D	-	-	. Diploma - Agriculture	42	50
			. MS	47	60
<u>Medicine</u>	<u>89</u>	<u>95</u>	. Ph.D	-	-
. MD	71	62			
. MS	4	23	<u>DEEP</u>	<u>49</u>	<u>56</u>
. Ph.D	2	5	. Diploma - Education		
. A. Nursing	12	5	Administration	-	3
			. MA	15	17
<u>Nursing</u>	<u>52</u>	<u>32</u>	. TD	34	36
. BS	27	32			
. Diploma - Nursing	25	--			
			AUB TOTAL	<u>1,097</u>	<u>1,332</u>
<u>Public Health</u>	<u>47</u>	<u>71</u>			
. BS	9	29			
. MS	-	1			
. MPH	13	22			
. Diploma - Lab Technician	25	19			

(2) Average Enrollment for the Two Academic Years 1981-82 and 1982-83 Has Been Approximately 4,500

Despite the war conditions during the summer of 1982, total AUB enrollment in the fall of 1982 remained essentially unchanged from the preceding year; and enrollment increased in several areas, as shown below:

	<u>1981-82</u>	<u>1982-83</u>
Arts & Sciences	2,368	2,310
Engineering & Architecture	802	820
Medicine	480	441
Agriculture & Food Sciences	352	364
Public Health	199	233
DEEP & Special	244	213
Nursing	116	119
Total AUB	<u>4,561</u>	<u>4,500</u>

(3) The Attractiveness of AUB Academic Programs Varies Widely

*demand for field*  
 The ratio of applications to acceptances is a useful measure of program demand. By this measure, engineering and medicine are in strong demand, while agriculture, education, and nursing turn away few applicants.

AUB Ratio of Applicants to Acceptances

	<u>Fall 1981</u>	<u>Fall 1982</u>	<u>Two Year Average</u>
Engineering & Architecture	3.8	4.1	4.0
Medicine	2.5	2.7	2.6
Public Health	2.4	1.7	2.1
Arts & Sciences	1.8	1.5	1.6
Nursing	1.3	1.3	1.3
Agriculture & Food Science	1.3	1.2	1.2
DEEP & Special	1.6	1.0	1.3
AUB Mean	2.5	1.9	2.2
AUB Median (A&S)	1.8	1.5	1.6

- . Data on number of applicants and acceptances by study level and field are shown on Exhibit IV-2. These data show two special areas with ratios greater than 2.0, indicating strong demand for these AUB programs:
- . - Undergraduate Business Administration - 3.5
- . - Graduate Arts & Sciences - 2.5
- . Data available from the AUB Registrar do not separate graduate applicants and acceptances by departments, so it is not possible to determine how much of the graduate Arts and Sciences demand is due to the MBA program or to other specific programs. However, interviews with faculty and others suggest that there is strong demand for the MBA program.

(4) The "No Show" Rate Among Those Who Have Been Accepted for Enrollment Is a Secondary Measure Which Generally Corroborates the Conclusions Indicated Above

It is not possible to determine how much of the "no show" rate has been affected by security conditions or other factors. "No show" data are included on the same exhibit as applications and acceptances data, under the heading "DNR" (Did not register after acceptance). In most areas, "no shows" are on the order of 20 percent or less of acceptances -- comparable to institutions in the U.S. The rate for freshmen students is characteristically higher.

(5) All Academic Programs Except Medicine Include Courses Taught by Arts and Sciences (and Sometimes Other Faculties) As Requirements for Graduation, Rather Than Having Each Faculty Teach These Required Courses Themselves

Because of difficulties in making computer runs, AUB has not made a full analysis of all such cross-listing; however, the University Planning Committee estimates that Arts and Sciences provides the following percentages of courses used for degree credits in other faculties:

- . Public Health - 42%
- . Nursing - 37
- . Agriculture & Food Sciences - 29
- . Engineering & Architecturs - 19

EXHIBIT IV-2  
American University of Beirut  
Student Application and Enrollment Data

	1980-81	1981-82			1982-83				1980-81	1981-82			1982-83		
	Applied	Applied	Accepted	DNR*	Applied	Accepted	DNR*		Applied	Applied	Accepted	DNR*	Applied	Accepted	DNR*
<u>ARTS &amp; SCIENCES</u>								<u>PUBLIC HEALTH</u>							
. Graduate	296	314	170	29	385	153	30	. Graduate	26	56	33	6	74	60	3
. Special	17	12	70	19	27	47	9	. Public Health I	182	137	50	3	138	77	
. Seniors	5	4	-	2	-	-	-	. Public Health Cert.	42	26	-	6	30		17
. Juniors	30	23	15	7	28	12	-	. X-Ray I	22	11	11	7	16	17	
. Sophomore Arts	377	287	267	152	226	281	84								
. Sophomore Business Adm.	305	237	100	43	291	84	15	<u>ENGINEERING &amp; ARCHITECTURE</u>							
. Sophomore Science	578	464	260	115	468	347	94	. Graduate	14	27			12		
. Freshman Science	343	269	130	104	237	177	113	. Engineering I	1,245	1,092	295	42	1,222	302	45
. Freshman Arts	162	185	120	79	125	132	87	. Special						1	
<u>MEDICINE</u>								<u>AGRICULTURE &amp; FOOD SCIENCE</u>							
. Graduate	94	98	50	2	96	32	1	. Graduate	46	83	64	9	80	60	12
. Medicine I	271	234	80	1	224	81	-	. Agriculture I	116	114	90	49	98	91	15
. Special				2		5	-								
<u>NURSING</u>								<u>DEEP &amp; SPECIAL PROGRAMS</u>							
. Associate Degree I	28	33	28	1	50	27	22	. DEEP Graduate	25	41	25	3	27	16	5
. Post Basic	-	2		1	5			. DEEP Special	3	4	4	5	15	27	5
. Nursing II	89	51	40	44	48	51	16								
								<b>Total</b>	<b>4,338</b>	<b>3,804</b>	<b>1,519</b>	<b>742</b>	<b>3,906</b>	<b>2,080</b>	<b>563</b>

\*DNR = Did not register although accepted

Data compiled from AUB Registrar's file memoranda; inconsistencies, if any, may be due to changes in classification scheme or clerical error when the memoranda were prepared

In addition, a concerted effort has been made to eliminate redundant courses taught by individual faculties (statistics courses, for example, are the dandelions of academia -- they seem to appear in almost every department and require continuing effort to root out). While it is difficult to analyze course content from an examination of the course catalog, both the course listings and discussions with faculty tend to support the conclusion that redundant courses are consistent in number with those in U.S. universities.

## 2. STUDENTS

### (1) Non-Lebanese Represent About 20 Percent of the AUB Student Body, Compared With About 50 Percent in 1970

This decline in the non-Lebanese share of enrollment is attributable both to the security conditions in Beirut since the mid-1970's, and to increased competition for students from other institutions in the region and in the U.S. However, AUB continues to attract well-qualified students from Lebanon and other countries in the region because of the reputation of its programs, particularly in engineering and medicine.

- . Scores of AUB students on the standardized SQ test used throughout the region indicate AUB students are among the best qualified in the region.
- . AMIDEAST counselors observe that students seeking college placement in the U.S. from Lebanon "typically" do so because they were not accepted by AUB.
- . AUB graduates frequently are paid more than graduates of other institutions in the region and obtain admission to top U.S. graduate schools (data to support this is largely anecdotal; but the view seems to be widely believed, based on a sampling of knowledgeable people in the U.S., Lebanon, and elsewhere.)
- . Changes in the composition of the student body during the period from 1971-81 compiled by the University Planning Committee are shown on Exhibit IV-3. Data on the country of origin of AUB students by faculty have not been tabulated due to constraints on computer time and staff availability; however, discussions with faculty and administrators indicate that non-Lebanese are a higher percentage of graduate students than of undergraduates.

EXHIBIT IV-3  
 American University of Beirut  
 Enrollment by Nationality - 1970-1982

	<u>Lebanese Students</u>		<u>Arab Students</u>		<u>Other Students</u>		<u>Total Students</u>
	<u>No.</u>	<u>% of Total</u>	<u>No.</u>	<u>% of Total</u>	<u>No.</u>	<u>% of Total</u>	
1970-71	1948	47.4	1273	31.0	836	21.6	4,107
1971-72	2117	51.2	1236	29.9	781	18.9	4,134
1972-73	2333	53.2	1278	29.1	775	17.7	4,386
1973-74	2469	53.5	1366	29.5	784	17.0	4,619
1974-75	2678	55.5	1328	27.6	817	16.9	4,823
1975-76	2392	63.1	870	23.0	529	13.9	3,791
1976-77	1640	78.1	330	15.7	131	6.2	2,101
1977-78	2714	71.2	781	20.5	317	8.3	3,812
1978-79	3032	73.9	762	18.6	308	7.5	4,102
1979-80	3448	72.5	920	19.4	387	8.1	4,755
1980-81	3720	74.0	867	17.2	441	8.8	5,028
1981-82	3672	75.5	795	16.3	398	8.2	4,865

- . The impact of hostilities on composition of enrollment can be inferred from the pattern of changes over the last decade:
  - The number of non-Lebanese fell sharply during the hostilities of the mid-1970's, then rebounded (but not to the original level) until tensions again increased in recent years.
  - At the same time, the number of Lebanese students who went abroad increased also, as shown by U.S. enrollment data, even though the number of Lebanese students at AUB rose. In 1981-82, Lebanon ranked tenth in the number of its students attending U.S. colleges -- an amazing thing for such a small country.

These data suggest that the elimination of hostilities in Lebanon would be followed by an increase in the number of Lebanese and non-Lebanese students seeking to attend AUB.

(2) Courses Offered and Their Quality Will Significantly Affect the Future Composition of the AUB Student Body

If AUB maintains and enhances its established areas of strength, such as engineering and medicine, and if peace is maintained, AUB will continue to attract both Lebanese and non-Lebanese students to those programs. The number of non-Lebanese applicants would likely increase in these areas of strength. If peace is not maintained, the relative attractiveness of AUB will be reduced among both Lebanese and non-Lebanese students with the academic and financial resources to study elsewhere. For students who might be academically qualified but lack the financial resources to study elsewhere, especially Lebanese students, AUB is likely to be the preferred school, even if political ambiguities continue unresolved indefinitely.

3. INSTRUCTIONAL RESOURCES

(1) Financial and Security Problems Have Seriously Eroded the Edge AUB Had in Instructional Resources in the 1960's

However, AUB faculty and facilities still compare favorably with other institutions in the region, as well as with many in the U.S.

(2) Faculty and Staff Quality Have Been Adversely Affected by the Lack of Security, Lack of Housing, and Low Pay

Many good people have left (though many have stayed, despite the problems); and it has been difficult to recruit replacements.

*faculty + staff*  
\_ There is a marked gap in the number of mid-level faculty. Senior tenured faculty with deeper roots have tended to stay, while less-senior faculty have sought better opportunities elsewhere (or comparable opportunities in safer areas).

- Salary constraints have made it largely impossible to hire replacements above the assistant professor level. As a result, there are sizeable blocks of old faculty and of young faculty, with a gap in the middle.
- This gap poses problems in the development of department chairmen and other roles normally assigned to strong mid-level faculty; it creates an "experience gap" between senior and junior faculty; and it points toward a potential lack of senior faculty 5 to 10 years from now.

(3) Library Resources Have Suffered From the Shortage of Funds for Book Purchases

- library material*
- Serials acquisition has been maintained reasonably well.
  - Study space is inadequate to accommodate the number of students, except in the medical school; and library hours have been restricted for the sake of economy and security.
  - A new head librarian has just arrived and is actively assessing current resources.

(4) Computer Facilities for Instruction and Research Should be the Subject of a University-Wide Strategic Plan

AUB does not have a plan for the use of computers as a university-wide resource for instruction and research. (See also Chapter III, Section 6).

- . The University's main computer is an IBM 370 with limited core memory, which limits the system to batch card operations. Turn-around on student jobs is usually 24 hours, consistent with practice at U.S. universities in the mid-1960's.
- . A replacement IBM 4341 has been ordered for delivery in 1984 but will be used principally for administrative purposes. The initially planned number of terminals for student access will be the same as the number of keypunch machines now available to students (4-6).
- . The Business School has six Apple II microcomputers, and Engineering & Architecture has a mini-computer, needed for specialized instruction and research.
- . Computers are an instructional resource which has become critically important in recent years and in which AUB lags well behind other universities. The deficiency is widely recognized by students and faculty, including many in the arts and humanities who have become aware of applications in those areas.
- . AUB should develop a university-wide strategic plan for information resources to support teaching and research, encompassing computers, telecommunications, books, and video systems. Failure to do so could seriously undermine efforts to maintain and extend AUB's strengths in engineering, medicine, business, and many other areas. This plan should encompass the library and computer/communications facilities into an overall AUB "Information Resource".

(5) Laboratory Facilities Are Aging and in Need of Replacement or Upgrading in Many Areas

Although overall laboratory facilities are generally adequate for the present, AUB does not have a laboratory equipment replacement plan. There is no consolidated information available on the age and condition of laboratory equipment or on priorities for replacement or additions. An overall plan should be developed.

(6) Student-Faculty Ratios as a Potential Measure of Instructional Quality and Faculty Workload Indicate That AUB Classes Are Smaller Than Those at Most Public Universities in the U.S. and the Mideast

This is a major factor in the strength of many AUB programs when compared to other institutions. AUB does not have a complete and consistent analysis of student-faculty ratios for all faculties; however, an analysis prepared by Arts and Sciences for each of its departments, summarized on Exhibit IV-4, provides both a good model and useful insights:

- . Arts and Sciences faculty teach an average of 10 hours per week, not counting graduate student assistants.
- . Student-faculty ratios average 31 for undergraduates and 7 for graduate classes.
- . Departments within Arts and Sciences average only one undergraduate class per semester with fewer than 10 students, and three graduate classes with fewer than 10 students.
- . Average cost per SCH (semester credit hour) for Arts and Sciences in the fall of 1982 was \$115, including allocated overhead.

Similar data on each faculty and department should be compiled each semester; but it is not done now because of lack of staff and computer time.

(7) Class-Room Facilities are Comparable to Those in Most U.S. Institutions

Utilization appears comparable to a typical U.S. institution; however, AUB has not prepared a complete class-room utilization analysis in several years. The space analyst in Physical Plant, who formerly performed such studies, left and has not been replaced because of budget constraints.

- . Individual faculties have made limited ad hoc assessments of their own utilization from time to time; and no major laxity has been reported.

EXHIBIT IV-4  
 American University of Beirut  
 Workload Averages for Arts and Sciences Faculty  
 First Semester 1982 - 1983

<u>Item</u>	<u>Undergraduate</u>	<u>Graduate</u>	<u>Total</u>
1. Student Semester Credit Hours Generated (SCH)	2,544	137	2,681
2. FTE Faculty	---	---	9.81
3. Graduate Assistants	---	---	3.04
4. SCH/Faculty Member, Excluding GA's	255	14	2.69
5. SCH/Faculty Member, Including GA's	197	11	208
6. Semester Hours per Faculty Member (Excluding GA's)	8.29	1.54	9.83
7. Student-Teacher Ratio (Excluding GA's)	31	7	27
8. Small Classes (fewer than 10)	1	3	4
9. Income Per SCH (\$)	83	128	---
10. Income Generated (\$1,000's)	211,000	18,000	229,000
11. Cost, Including Overhead (\$1,000's)	---	---	309,000
12. Cost per SCH	---	---	115
13. Difference Between Income and Costs (\$1,000's)	---	---	-80,000

- . Like most universities, AUB classes tend to be heavily used during morning hours and less heavily used during afternoon hours when laboratory courses meet.
- . If the number of class-room courses scheduled for afternoon hours can be increased, the present space could accommodate a larger number of students.
- . Conversely, a reduction in students would not significantly reduce the number of class-rooms currently needed.

#### 4. COMPETITIVE POSITION WITH OTHER INSTITUTIONS

The emergence of well-funded new universities in the region and some decline in the quality of AUB facilities and faculties during the last decade have intensified the competition AUB faces in attracting students. However, AUB retains important advantages when compared both to universities in the region and in the U.S.

##### (1) U.S. Institutions Are Generally Much More Expensive Than AUB

Exhibit II-1 portrays costs for tuition, room and board, and other expenses at a sampling of public and private universities in the U.S. AUB costs are typically less than a third of these. On top of these U.S. costs must be added transportation costs to the U.S. from the Mideast.

- . Distance from home and the difficulties and costs of getting back also affect both parent and student outlook on study in the U.S. AUB provides for the Middle Eastern student, a "piece of the U.S." in a Mideast environment, not so far from home and without the complete change in culture (and often isolation) associated with study in the U.S.
- . For the wealthy, U.S. study may be somewhat more attractive. Higher tuition, boarding, and transportation costs are of less concern; and the students may have previously had experience in the U.S. or elsewhere, so that cultural differences are lessened. However, for most students and parents alike, the U.S. looks big, expensive, a long way off, and uncertain, particularly for undergraduates.

(2) AUB Has Perceived Advantages for the Middle Eastern Student

- . AMIDEAST, an organization that assists Middle Eastern students in arranging university admission in the U.S., observes that most students it works with at the undergraduate level try first to enter AUB or another American-style institution in the region. Failing that, they try to find an institution in the U.S.
- . After graduation from a university in the region, graduate study in the U.S. is more attractive and less intimidating. AUB has a reputation for being able to place its graduates in better U.S. graduate schools.

(3) Mideast Institutions, Many of Which Have Expanded Greatly in the Last Ten Years, Are a Growing Source of Competition for AUB

The competitive dynamics are more complex when comparing AUB to most institutions in the region than when comparing AUB with U.S. institutions.

- . Other than in Beirut, AUB's Mideast competitors are principally large state-operated universities in which Arabic is the usual language of instruction
  - A few institutions provide portions of the instruction in English; none require English for all classes.
  - Class sizes are large, student interaction with faculty is limited, and lab training is minimal in most of the state-operated universities; but tuition is low (or even free in some instances).
  - AUB's real Mideast competitors are those institutions that require English instruction for at least a portion of their courses and whose faculty and facilities are generally comparable or superior to AUB's. The two institutions most often mentioned as serious potential competitors to AUB are Yarmouk University (Jordan) and the University of Petroleum and Minerals (Saudi Arabia).

- Distance from home, both geographic and cultural, are factors in evaluating AUB's competitiveness within the region.
- Personal security is also an important concern affecting AUB's attractiveness and even if peace is restored to Lebanon, the heritage of the past decade will inhibit some students.
- . AUB is widely recognized in the region for the practical training and breadth of learning its students receive, and for the proficiency of its graduates in English.
  - This combination tends to make AUB graduates better able to adapt to change and to keep abreast of continuing developments in their fields (since the bulk of the professional literature is in English in most fields)
  - AUB's reputation is enhanced by the fact that AUB alumni occupy respected professional and leadership positions throughout the region and the world, to a much greater degree than other institutions in the region.
- . The factors that make AUB academically attractive can make it less attractive among students or government officials with strong nationalist sentiments. The requirement to use English and the encouragement of students to question the ideas of their instructors will be viewed negatively by some, as will the "American" orientation of AUB.

(4) An Assessment of AUB's Relative Attractiveness to Prospective Students From Different Areas of the Region and Different Fields of Interest is Presented on Exhibit IV-5

The exhibit ranks AUB's relative attractiveness by faculty and country into three categories:

- Attractive -- AUB is high on the list of places a qualified student would seek to go
- Competitive -- AUB might not be at the top but would certainly be on the list of schools which a qualified student would seriously consider

**EXHIBIT IV-5**  
**American University of Beirut**  
**COMPARATIVE ATTRACTIVENESS TO STUDENTS**

FIELD	NATIONALITY					
	LEBANON	JORDAN	SYRIA	SAUDI ARABIA	GULF STATES	OTHER STATES
MEDICINE	★	□	□	□	□	□
ENGINEERING UNDERGRADUATE AND GRADUATE	★	★	★	□	★	★
AGRICULTURE UNDERGRADUATE	□	●	●	●	●	□
AGRICULTURE GRADUATE	□	□	□	□	□	□
ARTS AND SCIENCES UNDERGRADUATE	★	★	●	●	●	●
ARTS AND SCIENCES GRADUATE	□	□	□	●	●	●
BUSINESS UNDERGRADUATE	★	●	●	●	●	□
BUSINESS GRADUATE	★	□	□	●	●	□

SOURCE: BOOZ-ALLEN SUBJECTIVE JUDGEMENT, BASED ON INTERVIEWS OF HOW STUDENTS OF VARIOUS NATIONALITIES VIEW THE RELATIVE ATTRACTIVENESS OF AUB IN DIFFERENT FIELDS OF STUDY.

★ — ATTRACTIVE  
 □ — COMPETITIVE  
 ● — LIMITED

Limited -- AUB might be considered but would not be among the leading contenders in a qualified student's mind.

- . Not surprisingly, AUB has its strongest appeal to students from Lebanon; but it is also competitive in several fields among prospective students outside Lebanon.
- . Within Lebanon, AUB seems to be generally regarded as the leading institution of higher education. (This perception was strikingly enforced by informal conversations with several officials of the leading Francophone university in Beirut, who acknowledged that the children of many of their faculty members preferred to attend AUB, to their considerable consternation.) Further, as noted earlier, AUB tuition is not dramatically different than tuition at other smaller institutions in the Beirut area, which tend to set their tuition just enough below AUB to fill their classes.

## 5. CURRICULUM AND ENROLLMENT STRATEGIES

### (1) AUB's Strategy for Curriculum Development Should be Based on a Combination of Academic and Financial Strengths

Three rules should be applied:

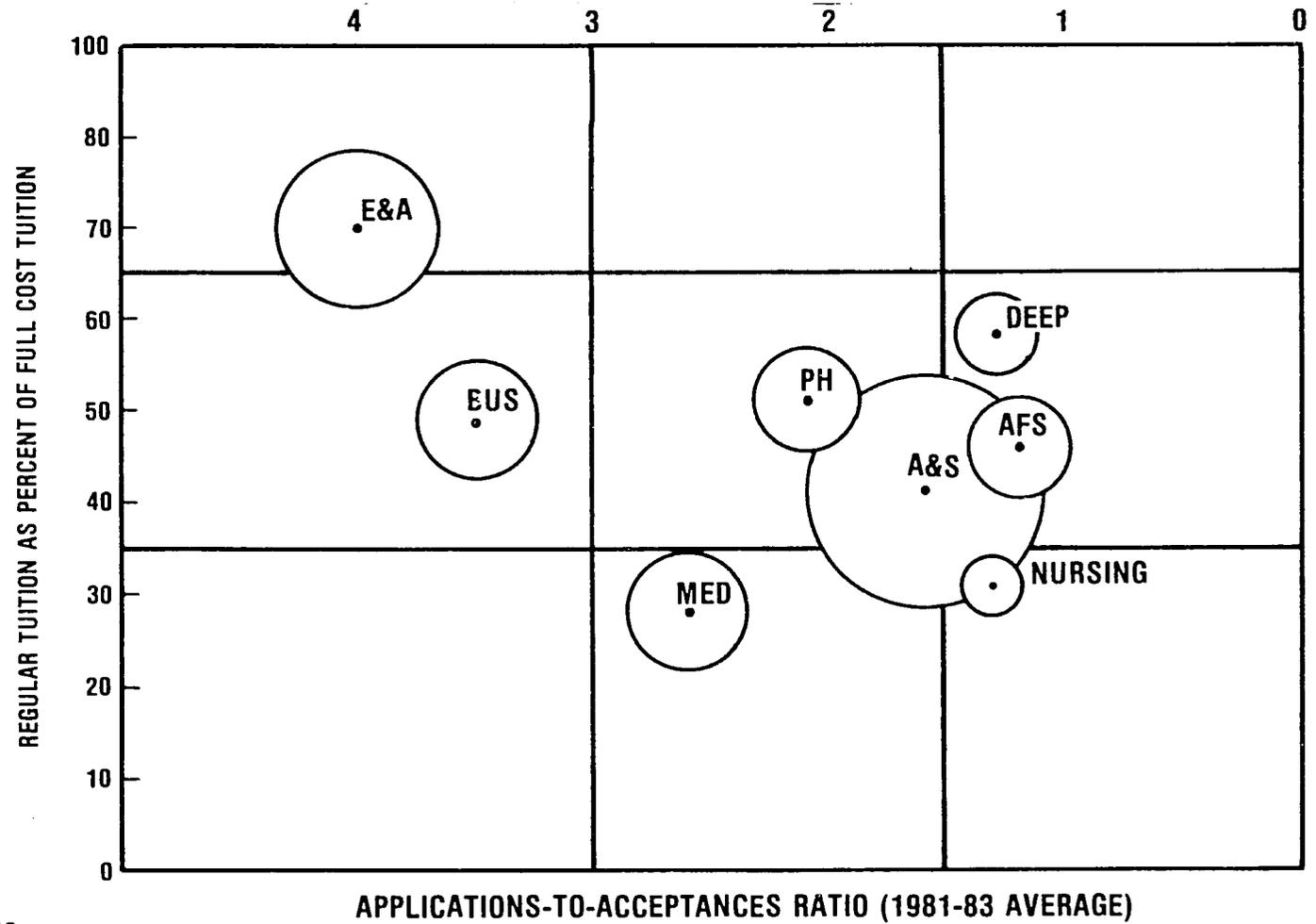
- . Concentrate on fields of study with high applicant-enrollee ratios and with high cost-coverage ratios
- . Avoid subsidizing fields of study with low applicant-enrollee ratios and low cost coverage ratios unless there is a clear "loss leader" effect (that is, the subsidy attracts enough students in self-sustaining areas to more than offset the subsidy).
- . Build graduate programs very selectively in fields of existing strength or in directly allied fields which will reinforce current strengths.

(2) Several Curricula, Tuitions and Enrollments Should Be Enlarged

Exhibit IV-6 following this page shows the position of AUB's faculties on a grid depicting cost-coverage on the vertical axis and applicant-acceptance on the horizontal. (Similar charts could be prepared for each department and degree level once the necessary data were assembled by AUB.)

- . Engineering and Architecture excels in both cost-coverage and applicant-enrollee dimensions. High demand permits tuition to be raised to support better faculty and facilities; enrollment can also be increased.
- . Business has a high applicant-enrollee ratio and a moderate cost coverage ratio. This combination suggests that tuition ought to be raised and enrollment increased in this area as well.
- . Medicine has a high applicant-enrollee ratio but a low cost-coverage ratio. ~~Tuition~~ ought to be increased at least to the point that it covers net direct costs (after endowment income and other long-term outside support for medical instruction has been factored in). Any further program expansion should be carefully examined in terms of its cost-effectiveness in raising program quality and its impact on revenues.
- . Public Health (Health Sciences) has a satisfactory applicant-enrollee ratio and a cost-coverage ratio that is near the AUB average. Tuition should be increased, but not as much as tuition for Medicine, Business, and Engineering at this point. Efforts should be made to increase the recognition of the program before undertaking expansion, particularly in view of the drop in the applicant-enrollee rate in 1982-83. If that rate can be held consistently above 2.0 and tuition income can more than cover direct costs, with a major contribution to overhead (after inter-faculty transfers are included), then plans for selective program expansion should be considered.
- . Arts and Sciences has only a fair applicant-enrollee ratio and a below-average cost-coverage ratio. Efforts are needed to raise performance on both dimensions. Tuition should be increased at least to the level needed to cover direct costs. Each Arts and Sciences department should then be evaluated in terms of (a) cost-coverage, (b) inter-faculty service enrollment, and (c) applicant-enrollee ratios. (Applicant-enrollee ratios are an

**EXHIBIT IV-6**  
**American University of Beirut**  
**COST-DEMAND PERFORMANCE**  
**BY FACULTY: 1982-83**



**LEGEND:**

- A&S — ARTS AND SCIENCES
- AFS — AGRICULTURE AND FOOD SCIENCE
- PH — PUBLIC HEALTH
- DEEP — DIVISION OF EDUCATION AND EXTENSIGN PROGRAMS
- E&A — ENGINEERING AND ARCHITECTURE
- BUS — BUSINESS
- MED — MEDICINE

**CIRCLES ARE PROPORTIONAL TO 1982-83 ENROLLMENTS**

insufficient measure of a program's importance if its principal role is service to other programs; but it should still be considered.) Expansion proposals should only be considered if they convincingly show that they are essential to maintaining current quality and can fully cover their incremental direct costs, plus contribute to overhead.

Both Nursing and Agriculture & Food Sciences have below-average cost-coverage and poor applicant-enrollee ratios. Nursing looks worse than any other faculty in its cost-demand performance. In both faculties tuition ought to be raised at least to the point of covering direct faculty costs (adjusted for inter-faculty transfers). If this causes enrollment to drop significantly, serious consideration should be given to reshaping or terminating the program involved. If, on the other hand enrollment does not fall or actually increases somewhat during the second and third semesters following the tuition increase, possibilities for further investment and limited expansion of that program should be considered.

DEEP has a poor applicant-enrollee ratio but a better-than-average cost-average ratio. Principal emphasis ought to be placed on increasing the visibility of the program and on shifting focus toward intensive English instruction or other high demand areas. At the same time, tuition should be kept high enough to cover direct costs and to make a sizeable contribution to overhead costs.

## V. PERSONNEL COMPENSATION

AUB's compensation system needs revision, both to increase differentials among disciplines and to recognize living costs in Lebanon. This chapter addresses these topics and several aspects of staff composition and workload.

### 1. COMPENSATION

#### (1) The Market For Faculty In Some Professional Fields Is Much Stronger Than In Others, Necessitating Differential Salaries

- . The fields in which AUB has the greatest attractiveness to students are in such professional fields as engineering, business, and medicine, in which the demand for faculty is high and the alternative of professional practice rather than teaching is close at hand. Failure to provide competitive salaries will undermine AUB's ability to capitalize on these areas of strength for its recovery and growth.
- . Differential salary levels for faculty in different fields in the U.S. are well established. As reported by The Chronicle of Higher Education, differentials were indexed as follows:\*

Engineering	- 122.4
Business and Economics	- 113.7
Social Sciences	- 107.8
Science and Mathematics	- 105.5
Arts, Fine and Applied	- 100.0 (Base)
Humanities	- 99.7
Physical Education	- 99.3
Vocational Education	- 94.3

\*Index of U.S. Faculty Salary Differences  
(All Ranks, all institutions: 1982-83)

- Competition of a similar nature exists for highly-skilled technical and professional positions -- computer specialists, accountants, engineers, experienced technicians and supervisors. In recent years the principal source of competition has been the Gulf region, where salaries are considerably higher and security problems have not existed. If reconstruction of Lebanon gets underway on a large scale, competition for qualified professional and technical personnel will be strong from that source. Differential salaries will be increasingly necessary.
- AUB faculty salary levels are presently differentiated, but a greater degree of difference is warranted to reflect current market realities. (Exact comparisons with the Chronicle data above are obscured by methodological ambiguities.)

(2) Direct Comparison of AUB Faculty Salaries With U.S. Academic Salaries Should be Tempered by Recognized "Post Differentials" for Beirut and Other Factors

- Comparisons of AUB faculty salaries with surveys of U.S. faculty salaries indicate that dollar amounts are about the same. Full professors at AUB appear to receive salaries slightly higher than U.S. counterparts, on average. Assistant professors at AUB receive somewhat less than their U.S. counterparts, on average. Associate professors receive about the same both places, as shown below:

Faculty Salaries for Nine Months  
(Excluding Fringe Benefits)

<u>Rank</u>	<u>U. S.</u>	<u>AUB*</u>
Professor	\$28,699	\$32,198
Associate Professor	23,242	23,822
Assistant Professor	19,487	18,530

\*AUB Salaries based on \$1 = 4.2 LL

Source: The Chronicle of Higher Education for selected universities

- The U.S. government provides a "post differential" of 25 percent of base salary, plus housing (estimated by U.S. Government to have a value of \$9,000 per year), plus a "cost of living differential" currently amounting to 15 percent of base salary to compensate for exchange rate variations, plus an education allowance.
  - A "hazard premium" of 50 percent of base salary paid prior to December 1982 has now been discontinued.
  - The total value of all "location allowances" (not counting relocation benefits) for Beirut is estimated by the U.S. Department of State to be currently on the order of 40-50 percent.
- The U.S. Department of Labor compiles comparative cost of living data for Beirut and other overseas locations. Immediately prior to last summer's war the cost of living in Beirut was 5 percent higher than Washington, D.C., for those dependent on the Beirut economy and 3 percent lower than Washington for U.S. Government employees receiving government-furnished housing. The cost of living in Washington is higher than the U.S. average by 3-7 percent, so that the cost-of-living differential between Beirut and the U.S. average is on the order of 8-12 percent, disregarding differences in living conditions.
- Tax laws affecting U.S. citizens working and residing abroad were liberalized in 1982 and now allow exclusion of the first \$75,000 of income earned abroad. Depending on the income level of the individual and his family, this would provide an offset of 20-35 percent, from which taxes paid in Lebanon must be deducted.

(3) Salary Scale Adjustments Upward of 15 Percent, Plus Inflation, Appear Warranted

- Significantly higher increases appear appropriate in some fields, lower faculty grades, and some professional staff positions.
- The future impact of any adjustments on the University's pension liability should be carefully calculated before action is taken.

(4) Paying Some Faculty in U.S. Dollars and Others in Lebanese Pounds Creates Problems of Equity and Morale When Exchange Rates Vary

It also represents discrimination between U.S. citizens and non-U.S. citizens. The swings in the exchange rate in recent years, from below 3.0 to about 5.0, back down to 3.75, and now back to about 4.0, create unintended salary differentials of about 20-40 percent among individuals doing the same work. Sometimes the swings favor the U.S. citizens, sometimes the non-U.S. citizens; but either way they create equity and morale problems.

One possible solution is to pay all faculty and senior administrative personnel half in U.S. dollars and half in Lebanese pounds. The proportion could be changed annually. Positions could be advertised as having a dollar-equivalent value, with payment half in Lebanese currency, which is needed for local expenditures.

STAFF COMPOSITION AND WORKLOAD

(1) Attrition and Recruiting Difficulties in the Faculty Have Created A Major Deficiency in the Number of Experienced Mid-Level Faculty

There are many older, tenured faculty and there are many younger, untenured faculty, some with extended service in lower grades. This poses problems of continuity and leadership development, both academically and managerially. Strong mid-level faculty are the major pool from which department chairmen, committee leaders, and other key academic and administrative roles are selected. Unless the situation is remedied by mid-grade recruitment or accelerated promotion, AUB will find itself with a shortage of good senior faculty 5-10 years from now.

(2) Faculty and Professional Staff Throughout AUB Generally Appear to be Fully Utilized

In some areas, necessary work cannot be done because there are not enough staff to do it. Staff reductions do not appear to be a cost-effective measure for budget-balancing. In several areas, acquisition of better equipment (copy machines, micro-computers, etc.) could significantly increase productivity of personnel who must use older, slower, less efficient calculators, typewriters, copiers, etc.

(3) Some Support Staff Work Practices and Levels Inhibit Efficiency

Clerical and lower level professional staff in many areas seem to lack the training and experience to make them fully productive, even though they are properly motivated. It appears that critical vacancies in the support staff may have been filled with available lower level people, perhaps because AUB was unable to obtain better qualified people or because of syndicate pressures to promote from within.

Work improvement and training programs should be instituted to enhance the productivity of support staff.

## VI. THE ACADEMIC MEDICAL CENTER

Taken in its entirety, the academic medical center with its hospital, outpatient clinics, private clinics, emergency service, medical education, nurse education, allied health professional education, and medical research represents well over half of AUB's human and financial resources.

The American University Hospital has been a major provider of exceptional health care and a distinguished institution for the clinical training of physicians and other health care professionals over many years. In addition to graduating over 100 health care professionals annually, the center touches the personal lives of 15-17,000 inpatients every year and nearly as many more outpatients in the emergency room and clinics.

This chapter is presented in the following sections:

- . Perspective
- . Organization
- . Administration and Operations
- . Revenue Management and Pricing
- . Program and Capital Needs
- . Short Term Management Strategies
- . Longer Term Strategies.

### 1. PERSPECTIVE

During the past several years, operating difficulties coupled with a volatile environment have had a substantial impact on the medical center.

(1) Patient Utilization Declined In the Past Year After Significant Growth In Previous Years (See Exhibit VI-1)

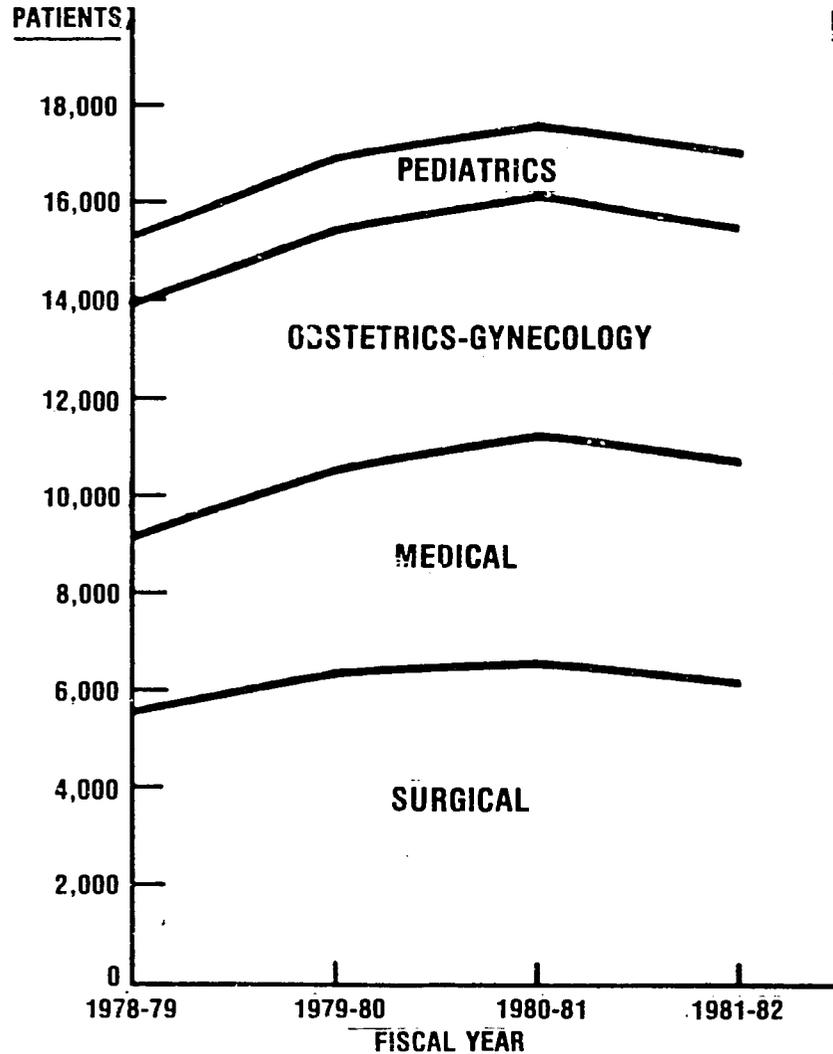
	Patient Days Percent		
	Change From Prior Year		
	<u>FY '80</u>	<u>FY '81</u>	<u>FY '82</u>
Surgical	18%	13%	0%
Medical	11	9	(7)
Obstetrics-Gynecology	6	0	(5)
Pediatrics	9	2	(2)
All Patient Days	13	8	(3)

- . The number of surgical patients in fact declined nearly 7 percent in FY '82, but the reduction of patients was offset by an increase in average length of stay.
- . Medical patients in FY '82 were level with FY '81, but the average length of stay declined.
- . FY '82 patient day losses in obstetrics-gynecology and pediatrics were due largely to fewer patients.

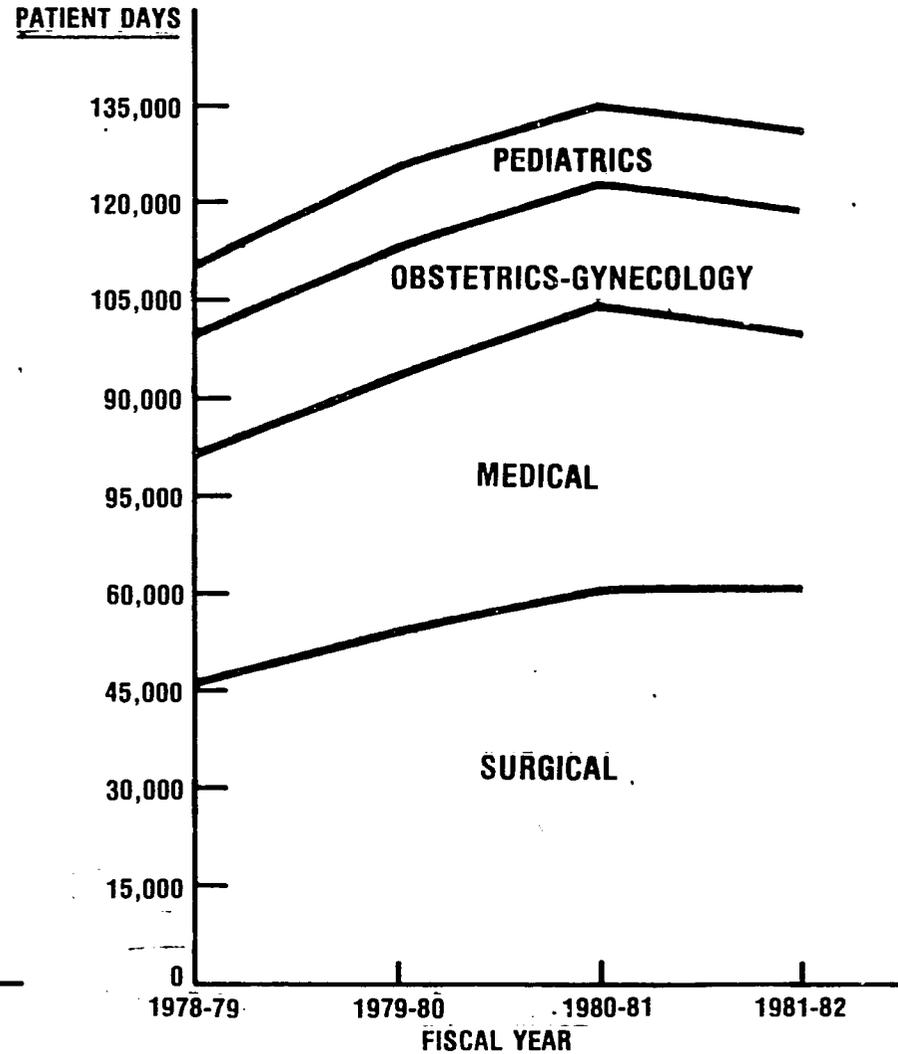
(2) Maintenance of Adequate Staff, Especially Nursing, Has Been Especially Difficult This Past Year

- . Presently, two patient units comprising 60 beds are closed because of lack of nurses.
- . Most recent efforts to recruit nurses from the Philippines have been less than satisfactory due to different standards of training, language barriers, and cultural differences. Closer screening of applicants has been reinstated.
- . Supervision has also suffered; as of November 1982, only 19 of 36 head nurse positions were filled.
- . Similar shortages of supervisory personnel are evident in other patient service areas.

**EXHIBIT VI-1**  
**American University of Beirut**  
**CUMULATIVE HOSPITAL**  
**UTILIZATION BY SERVICE**  
**1979-82**



**PATIENTS**



**PATIENT DAYS OF CARE**

(3) Although Hospital Expenditures Appear to Exceed Revenues by \$1.3 Million in FY '82, Unit Costs and Charges Are Low by U.S. Comparison (Exhibit VI-2)

Compared to U.S. teaching hospitals, the AUH is well below selected cost indicators:

	American University Hospital	167 U.S.** Teaching Hospitals
Expense per adjusted patient day	\$ 134	\$ 372
Expense per adjusted discharge	1,030	3,045
Personnel costs as a percent of total expenses	41%	49%
Outpatient revenue as a percent of total operating revenue	14%	12%

(4) Negative Revenue Adjustments and Expense Allocations From Other University Departments Contribute to Hospital Losses

- Patients of the National Social Security Fund (NSSF) and the Ministry of Health (MOH) pay less than charges; in FY '82 revenue adjustments for NSSF and MOH were over 5 percent of gross revenue, even though charges for these patients were discounted initially.
- For FY '82, per diem revenues from third class inpatients (largely NSSF or MOH) are expected to be about \$61 versus average per diem inpatient costs of \$133. Conversely, first class revenue per day is expected to be about \$198.

\*Source: HAS/Monitrend - Six-Month Data Book for period ending June 30, 1982

\*\*Preliminary audit results in May 1983 show a slight surplus in FY 82, the first in several years.

EXHIBIT VI-2  
 American University of Beirut  
 Summary of Hospital Revenue and Expense - 1982

REVENUE	Amount \$000	Percent of Gross Revenue
<u>Patient Care Revenue</u>		
Room & Service - First Class	\$2,595	11%
Second Class	2,010	9
Third Class	1,346	6
Inpatient Services	8,356	37
Medical Supplies & Drugs, etc.	3,239	14
Outpatient Revenue	<u>4,110</u>	<u>18</u>
Gross Patient Care Revenue	\$21,655	95%
<u>Other Operating Revenue</u>		
Food & Provision	624	3
Guest Accommodations	97	+
Rental-Equipment, Space, etc.	57	+
Collection-Part-time Physician Fees	125	1
Labor & Services-General	109	+
Patient Telephones	<u>17</u>	<u>+</u>
Total Other Operating Revenue	1,029	5
<u>Other Revenue</u>		
Student Tuition & Fees	7	
Interest, Discounts, etc.	26	
Restricted Gifts & Grants	<u>30</u>	
Total Other Revenue	<u>63</u>	<u>+</u>
	\$22,474	100%
	\$22,474	100%
<u>GROSS REVENUE</u>		
<u>Less: Adjustments</u>		
National Social Security Fund	313	(1)
Ministry of Health	924	(4)
Other-Charity, etc.	<u>30</u>	<u>(-)</u>
Total Adjustments	(1,267)	(6)
 NET REVENUE	 <u>\$21,480</u>	 94%

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## EXHIBIT VI-2 (continued)

<u>EXPENDITURES</u>	<u>Amount</u> <u>\$000</u>	<u>Percent of</u> <u>Expenses</u>
<u>Personal Services</u>		
Salaries	\$5,043	22%
Wages	2,792	12
Employee Benefits	<u>1,406</u>	<u>6</u>
Total-Personal Services	\$ 9,241	40%
<u>General Expenses</u>		
Supplies & Materials	7,820	34
Utilities & Communications (Direct)	37	+
Maintenance & Repairs	440	2
Travel-Local & Foreign	112	+
Rental of Premises	150	1
Rental of Equipment	91	+
Meals & Lodging	118	1
Staff Training	208	1
Losses	41	+
Interest Payments	187	1
Miscellaneous & Books	<u>44</u>	<u>+</u>
Total-General Expense	9,248	41
<u>Equipment</u>	29	+
<u>Alterations &amp; Improvements</u>	17	+
<u>Renewal &amp; Replacement</u>		
Building Renewal & Replacement	525	2+
Depreciation-Moveable Equipment	<u>544</u>	<u>2+</u>
Total-Renewal & Replacement	1,069	5
<u>Allocations</u>		
Allocations In:		
Faculty of Medicine to Hospital	831	4
Medical Center Manpower	373	2
All Other In	2,297	10
Allocations Out	<u>(286)</u>	<u>(1)</u>
Net Allocations	<u>3,215</u>	14
 TOTAL EXPENDITURES	 <u>\$22,819</u>	 94%

Source: June, 1982 Monthly Budget Revenue/Expenditure Report

Allocations of expense to the hospital from other University departments are about \$3.5 million or 15 percent of total expenses.

- Most of the allocations are determined by empirical, if somewhat arbitrary, formulae.
- The bases for allocations from the Faculty of Medicine are less clear.

(5) American University Hospital is Facing an Increasingly Competitive Market, Especially for Private Patients

- . Private hospitals in and near Beirut appear to be increasing. As shown in Exhibit VI-3, the Association of Private Hospitals in Lebanon lists 20 hospitals in Beirut with a total of 1,867 beds. Another 20 hospitals with a total of 1,277 beds are listed in the Mt. Lebanon area. In addition, there are as many as 50 hospitals that may not belong to the Association.
- . There are growing numbers of physicians in Lebanon, many of whom are AUB graduates. Notably, the surgical specialists on the Faculty of Medicine are largely private physicians with part-time faculty appointments. The Academic Development Plan of the Faculty of Medicine (1979) showed 1,300 physicians in Beirut alone in 1971.
- . The private hospitals seek private patients and many provide good patient amenities which, for most private patients, are a major criterion in judging satisfaction.
- . Reportedly, some private hospitals are actively marketing their institutions with insurance carriers to encourage more private and second class patients.
- . Development of new medical centers in Gulf States is likely to erode AUH's dominant position in the region.
- . More immediately, fighting which lingers in the mountains has blocked access for patients who live elsewhere in Lebanon.

EXHIBIT VI-3  
 American University of Beirut  
 Member Hospitals of the Private Hospital  
 Association in Lebanon  
 Districts of Beirut and Mount Lebanon - 1982

<u>District Of Beirut</u>	<u>Number Of Beds</u>	<u>District Of Mount Lebanon</u>	<u>Number Of Beds</u>
1 - American University	421	1 - Al-Sahal, Al-Ghebeiry	150
2 - Al-Room	274	2 - Bahnas, Medicine & Surgery	125
3 - Al-Makssed Al-Islamsya	240	3 - Sayedat Lebnan, Jauneh	120
4 - Al-Lebnany Al-Guestown	125	4 - Al-Azouneyah, Health & Surgery	100
5 - Dar Al-Saha Al-Berbar*	120	5 - Sayedat Al-Ma'ounat, Jubaily	75
6 - Al-Zahra, Al-Awzaee	118	6 - San Martin, Jubaily	75
7 - Rizik	80	7 - Abu Judah, Jal* Al-Deeb	74
8 - Nagar	70	8 - San Louis, Jauneh	63
9 - Al-Atteba'	60	9 - Al-Mayek, San Al-Feel	60
10 - Al-Turk	60	10 - Jubail Hospital	55
11 - Al-Markaz Al-Araby Labouhouth Al-Aslebat*	60	11 - Sayedat Al-Najat, Bekefia	54
12 - Markaz Al-Ta'heel Al-Tabby	<u>52</u>	12 - Khoury Al-Arow, Al-Zelka	54
	1,680	13 - Samir Serbal, MD	<u>50</u>
			1,055
13 - Fouad Kalifa, MD	30		
14 - Torad Hospital	30	14 - San Tabriz, Al-Madath	42
15 - Samy Baydoon, MD	30	15 - Al-Watany, Alia	40
16 - Adna Haydar, MD	23	16 - San George, Al-Hadath	35
17 - Mearbis, MD	20	17 - Mar Mikhail, Amsheet	34
18 - Ely Karam, MD	20	18 - Al-Hah*, Ashkout	30
19 - Lakander Khoury, MD	18	19 - Sharaf Al-Din, Alia	21
20 - Al-Ikhaas'	<u>16</u>	20 - Al-Lebnany for Physical Care	<u>20</u>
	<u>167</u>		<u>222</u>
	<u>1,867</u>		<u>1,277</u>

## 2. ORGANIZATION

As part of the American University of Beirut, the medical center is governed by the AUB Board of Trustees. Given its preponderant proportion of University resources, a more focused and intense structure for governance and management of the University's health care enterprise is called for. Of particular concern are:

- . Technological developments which will require relatively rapid response for program modification, expansion and additions
- . Demographic changes which focus the medical center's patient constituency in Lebanon and specifically the Beirut area
- . Needs for capital to sustain and grow service programs and to maintain leadership and quality standards, and the high probability that most capital will need to be generated from operations
- . Growing competition for first and second class patients, those who represent sources of positive net income.

More focused attention on hospital management is required:

- . The principal role of the hospital is health care services with education playing an important but lesser role. Attention must be focused on assuring its continued viability; achieving a self-sustaining balance of revenue and expense; and maintaining its leadership position as a health care enterprise in Lebanon and the region.

The hospital must succeed economically and qualitatively as a health care enterprise; only then can it successfully meet its educational role.

(1) Present Organizational Arrangements Are Not Suitable for Effective Management of the Academic Medical Center and Its Hospital

- . The Board of Trustees is justifiably concerned with the education and research affairs of the University as a whole. The present structure provides little linkages to, or understanding of the hospital operation by the Board of Trustees.
- . With the hospital subsidiary to the Faculty of Medicine, there is severe imbalance among education, medicine and hospital management power.
- . There is a disconnect between the hospital and its patient constituency. In other words, those responsible for governance of the hospital have little opportunity to become truly knowledgeable about its environment, the needs of the community, or the emergence of new constraining forces.

(2) Critical Challenges Will Require Substantial Infusion of Well Qualified Management Talents and a Balancing of Operational Limitations With Faculty Desires

AUH faces four critical management problems which give every evidence of becoming even more intense in the foreseeable future:

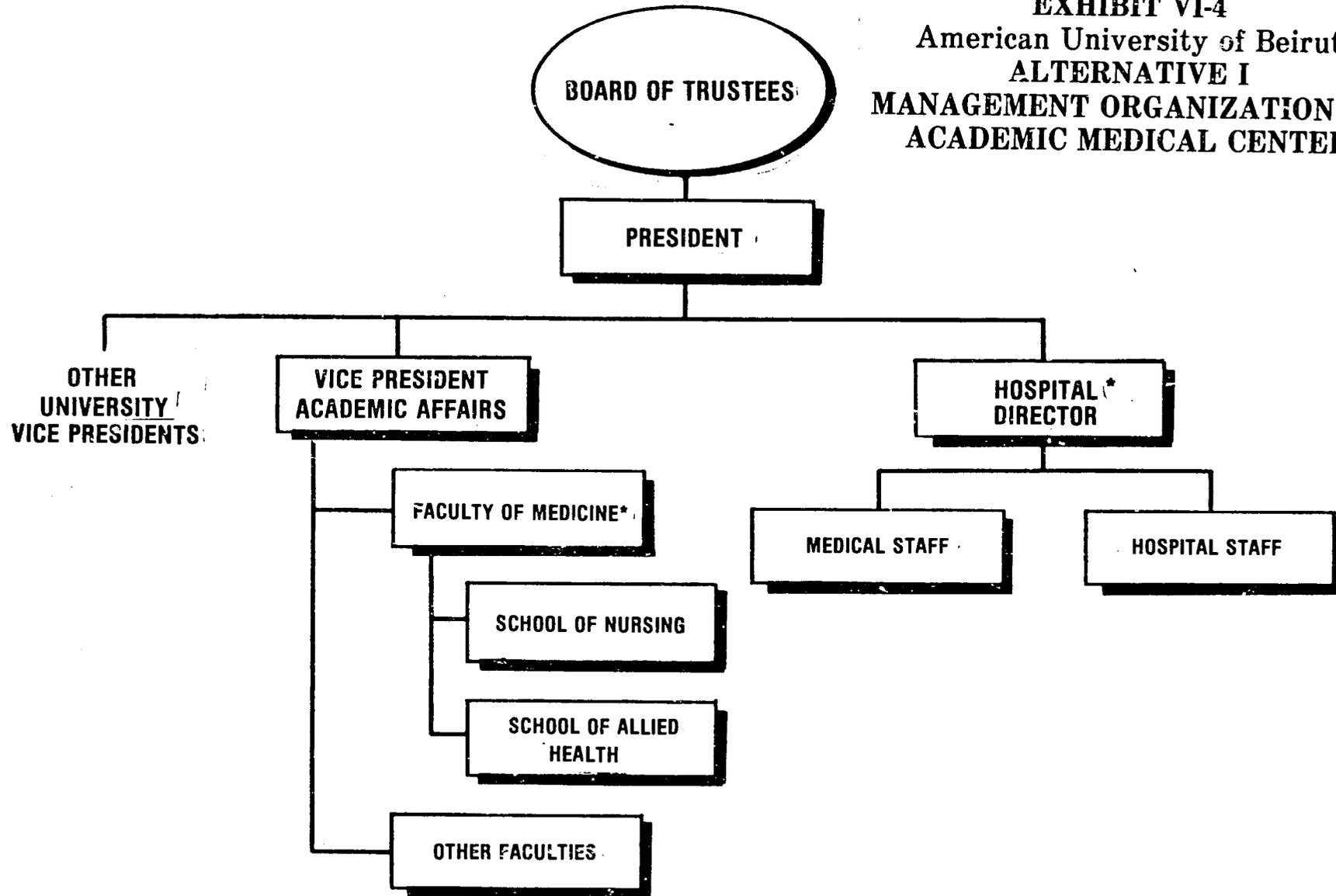
- . Shortages and increasing competition for nursing and allied health personnel.
- . Competition for first and second class patients, both locally and in the region.
- . Significantly increasing costs, both operating and capital, coupled with growing constraints on traditional sources of income.
- . Persistent demands from the clinical faculty/medical staff for expensive programs and services, not all of which can be accommodated, equipped or be self sustaining within the desired level of excellence essential for existing programs.

In short, these are vital management problems which will require a strong, balanced and dynamic organization. Presently, the organization of the medical center embraces exceptional medical expertise, but the number of well trained, experienced managers is limited. Further, the present organization structure does not lend itself to providing the balance of medical and management expertise which will be essential for economic survival.

(3) Three Options for Organization of the Academic Medical Center Deserve Consideration

- . Alternative I (Exhibit VI-4) - Creates the position of hospital director at the University vice presidential level reporting directly to the President.
  - The Faculty of Medicine would report to the Vice President for Academic Affairs and would add two educational departments - the School of Nursing and the School of Allied Health Professions (medical technology, radiologic technology, etc.).
  - The major strength of this alternative is that it separates and better defines the organizational entities for education and for health care.
  - Weaknesses of Alternative I are that it still does not provide linkage to the Board of Trustees nor enhance the Board's ability to exercise its trusteeship responsibility. Rather it delegates responsibility to balance educational and health care matters to the President.

**EXHIBIT VI-4**  
**American University of Beirut**  
**ALTERNATIVE I**  
**MANAGEMENT ORGANIZATION OF**  
**ACADEMIC MEDICAL CENTER**



\* FORMAL WRITTEN POLICY AGREEMENT ON CLINICAL ARRANGEMENTS BETWEEN FACULTY OF MEDICINE AND MEDICAL CENTER PATTERNED AFTER U.S. PRIMARY AFFILIATION AGREEMENTS OF MEDICAL SCHOOLS AND HOSPITALS.

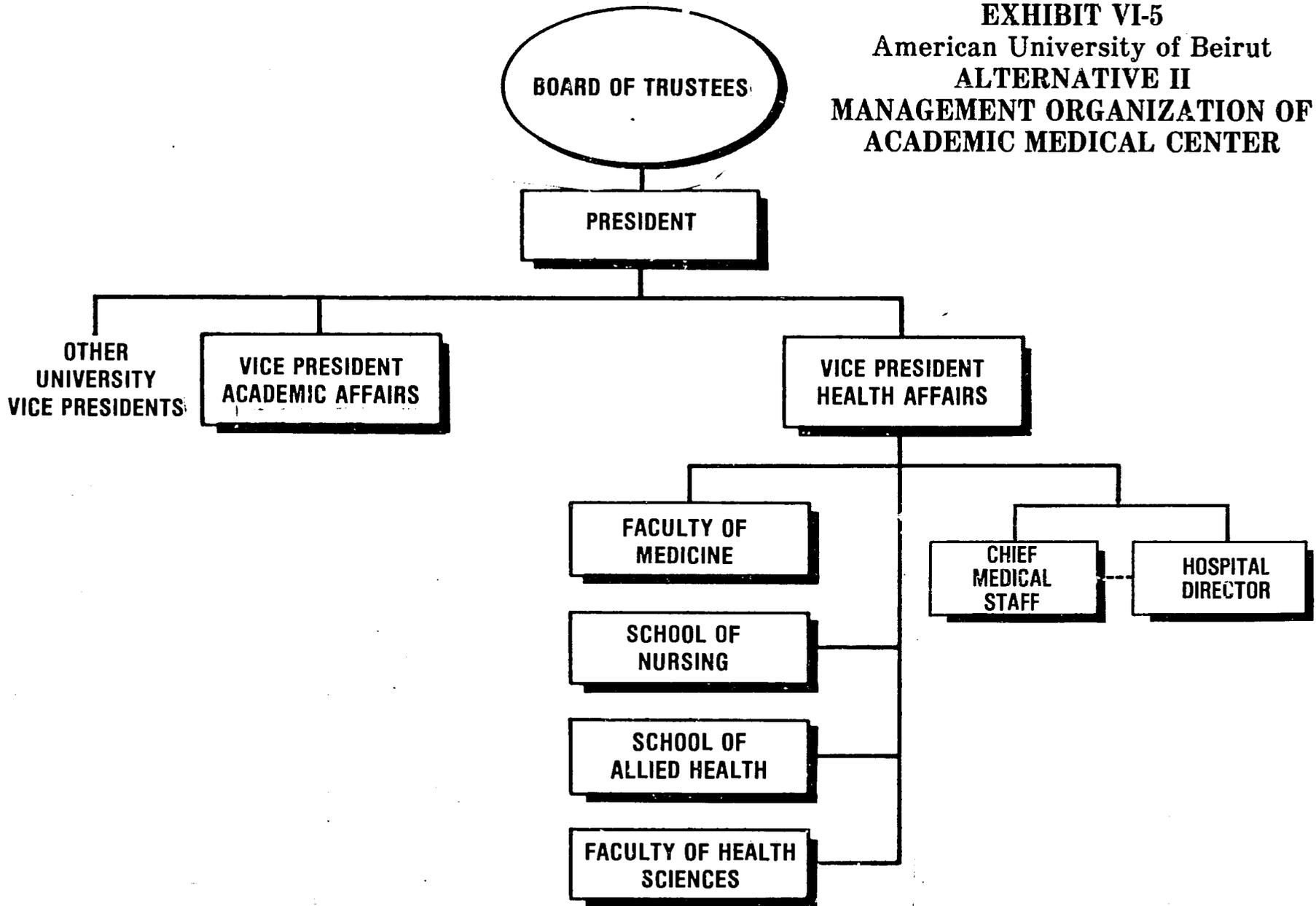
- . Alternative II (Exhibit VI-5) - Creates the position of Vice President for Health Affairs, reporting to the President and responsible for both the Faculty of Medicine and the Medical Center.
  - This organization model is widespread among academic health centers in the United States.
  - The major advantage is that the dean of medicine and the hospital director are at equal levels in a common organizational group.
  - An important weakness is that responsibility for resolving education versus health care issues is vested in a single individual, one whose combined talents and experience are difficult to recruit.
  - The issue of Board of Trustee oversight and exercise of governance responsibilities are not resolved by this alternative.

(4) The Recommended Alternative Creates a Board of Managers Over the Hospital

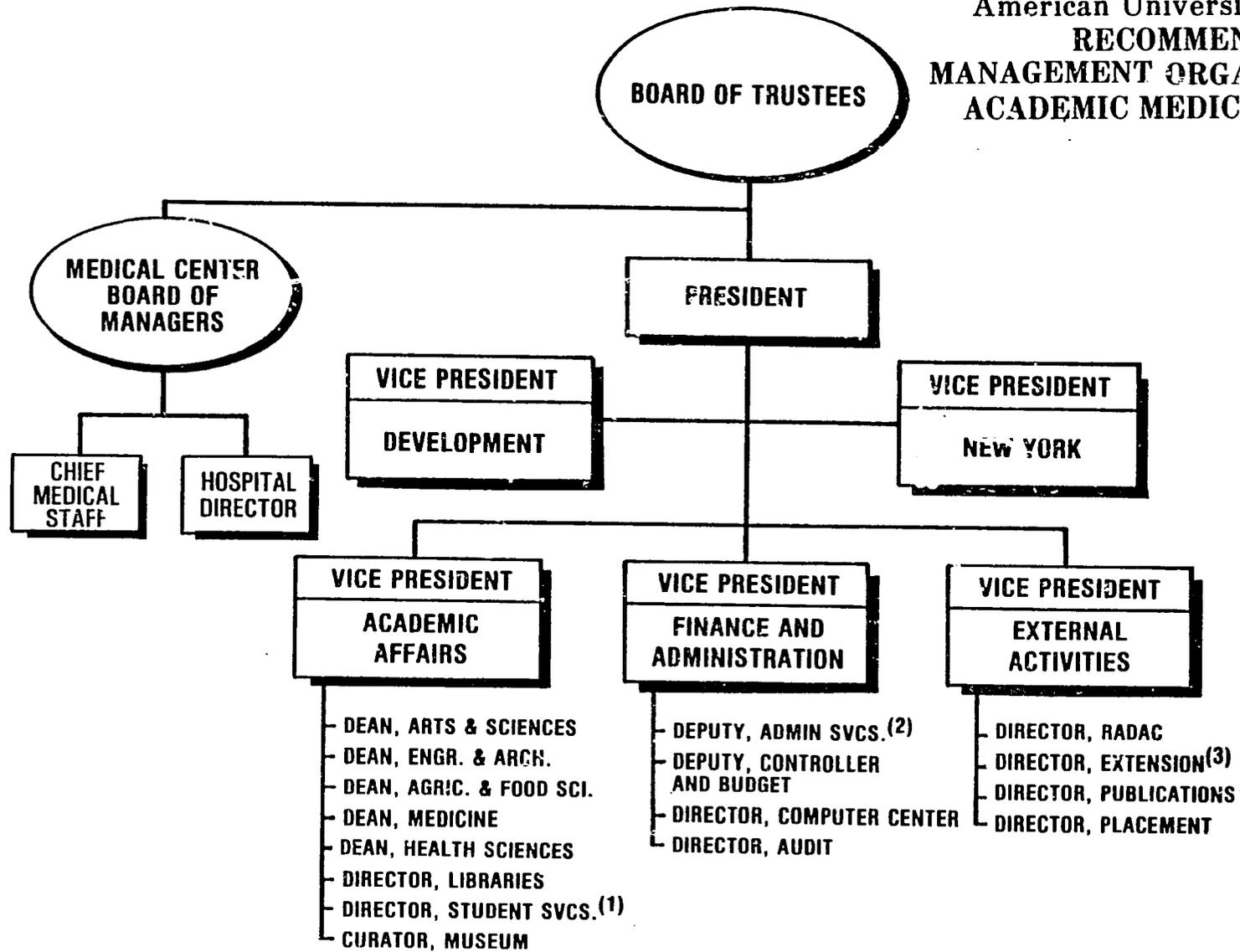
As shown in Exhibit IV-6, the recommended plan of organization for the Academic Medical Center creates a Board of Managers for the Medical Center (AUH) appointed by the AUB Board of Trustees. Faculty deans would report to the Vice President for Academic Affairs. The Board of Managers would be composed of internal AUB and external members. A formal agreement for clinical arrangements between the Faculty of Medicine and the Medical Center would be established and be subject to approval by the Board of Trustees. The hospital thus remains clearly part of the University but with a strengthened management arrangement that recognizes its particular magnitude and mission.

- . The Board of Trustees should retain certain responsibilities as well as governance oversight.
  - The Board of Trustees must retain responsibility for asset protection and therefore approval of all major capital outlays including acquisition and disposal of fixed assets and properties.
  - The Trustess should also have authority for final approval of the Medical Center statement of purpose, long range plan and capital budget in order to exercise their responsibility for integrating and balancing diverse, university-wide needs and interests.

**EXHIBIT VI-5**  
**American University of Beirut**  
**ALTERNATIVE II**  
**MANAGEMENT ORGANIZATION OF**  
**ACADEMIC MEDICAL CENTER**



**EXHIBIT VI-6**  
**American University of Beirut**  
**RECOMMENDED**  
**MANAGEMENT ORGANIZATION OF**  
**ACADEMIC MEDICAL CENTER**



(1) SUPERVISING BURSARY STUDENT'S OFFICE, REGISTRAR, STUDENT SERVICES

(2) SUPERVISING HOUSING, PROTECTION, PHYSICAL PLANT, PERSONNEL, PURCHASING, SUPPLY

(3) EDUCATION DEPARTMENT MOVES TO ARTS AND SCIENCES

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- The Trustees should confirm the appointment of the hospital director following selection and approval by the Board of Managers and concurrence of the President.
- Ultimate control of the Medical Center will be retained by the Trustees through their power of appointment and removal of members of the Board of Managers and approval of the bylaws of the Board of Managers.
- . Other management responsibilities should be delegated to the Medical Center Board of Managers.

The governance responsibilities delegated by the Trustees to the Medical Center Board of Managers should relate primarily to advancing the Medical Center as a leading health care provider.

- The Board of Managers should be responsible for setting the Medical Center's direction through establishing a long range plan and capital budget with a time horizon of five years or more.
  - .. The long range plan should be formulated within broad policies established by the Board of Trustees and must be consistent with the University's charter, mission and overall long range plan.
  - .. The complex array of emerging market and environmental factors must be included in the long range planning efforts as the Medical Center faces increasing competition for patients and resources.
  - .. Plans for the Faculty of Medicine must be taken into account to assure appropriate clinical education opportunities.
- Once long range plans and capital budgets have been approved by the Trustees, the Board of Managers should be responsible for approving annual implementation plans through programmatic planning and operating budgets.
  - .. Programmatic planning includes short-term specifications for implementing long range plan components with assignments of resources and responsibilities within a defined schedule.

- .. Operating budgets include authorized expense budgets and projected revenue including the charge structure.
- Ensuring effectiveness of management and operations should be another key responsibility of the Board of Managers. The Board's role would include the following:
  - .. Selecting and appointing the hospital director and annually appraising the incumbent's performance
  - .. Directing management to establish operating policies, procedures and systems consistent with university guidelines and medical education needs, including quality of care review mechanisms
  - .. Monitoring Medical Center management and organization consistent with approved goals and priorities.
  - .. Approving medical staff organization and appointments including delineation of hospital privileges.
- The Board of Managers should also be responsible for advancing the Medical Center's interests in all spheres of its organizational life. Members should participate in promoting and representing the Medical Center within the university and externally to the public and government.
- Exhibit VI-7 details the distribution of responsibilities recommended for the Board of Managers, the President of the University, and the Board of Trustees. In summary, the Board of Managers should recommend AUH's future direction and ensure operational effectiveness with oversight by the Board of Trustees and participation of the President.
  - .. The Board of Managers serves at the pleasure of the Trustees with Trustee review and approval of Board of Managers organization and structure.
  - .. Upon the recommendation of the Board of Managers and concurrence of the President, the Board of Trustees is responsible for approving long range plans.

EXHIBIT VI-7  
 American University of Beirut  
 Distribution of Medical Center Responsibilities

Functions	Major Components	Board Of Trustees	President	Medical Center Board Of Managers
Specify Mission, Goals, Plans	. Mission Statement	Approve	Concur	Recommend
	. Long Range Plan	Approve	Concur	Recommend
	. Capital Budget	Approve	Concur	Recommend
	. Programmatic Plan	Oversee	Review	Approve
	. Operating Budget	Oversee	Review	Approve
Protect Assets	. Acquisitions	Approve	Concur	Recommend
	. Disposal/Divestiture	Approve	Concur	Recommend
Ensure Management Effectiveness	. CEO Appointment And Evaluations	Oversee	Concur Oversee	Approve Approve
	. Policies	Oversee	Review	Approve
	. Processes	Oversee	Review	Approve
	. Organization	Oversee	Review	Approve
Approve Medical Staff Appointments and Organization	. Medical Staff By-Laws	Oversee	Review	Approve
	. Appointments And Privileges	Oversee	Review	Approve
	. Quality Assurance Reports	Oversee	Review	Approve
Advance And Protect Hospitals Interests	. Communication/Interpretation	Oversee	Review	Approve
	- Internal			
	- External			
	. Fund Raising	Oversee	Concur	Approve
. Public Policy	Oversee	Review	Approve	
Establish Board Organization And Procedures	. By-Laws	Approve	Concur	Recommend

- Once approval has been granted, operating budgets that vary from the long range plan or capital budget or fall short of agreed net income targets should be subject to Trustee approval.
- The Board of Trustees is responsible for communicating university-wide plans and policies to the Board of Managers through the President.
- The Board of Trustees should retain oversight responsibilities for AUH operating performance through periodic reporting by the Board of Managers and review by the President.

The Medical Center Board of Managers should include both internal and external members.

- The Board of Managers should be relatively small with a diverse membership and balance of internal and external members.
  - .. There should be 12 to 17 members -- an effective working body.
  - .. External members should comprise a majority of the board.
  - .. The President of the University should serve as Chairman of the Board of Managers and should provide leadership in assuring an appropriate balance of health care and education demands on Medical Center resources.
- Internal members may be drawn from but not necessarily limited to:
  - .. President (who will serve as Chairman)
  - .. Hospital director
  - .. Dean of the Faculty of Medicine
  - .. Chief of the Medical Staff
  - .. Two part-time members of the medical staff elected at large
  - .. University Vice President for Finance and Administration
  - .. One or two members of the Board of Trustees.

- External members should be appointed based on their breadth of professional expertise and stature as leaders with spheres of influence valuable to the Medical Center.
  - .. They should be drawn principally from the local area.
  - .. There should be representatives of business, professional, and civic leadership.
  - .. Members' stature should be commensurate with the intended role and status of the University and Medical Center.
- . Control of the clinical environment for medical education should be retained by the Faculty of Medicine through several mechanisms:
  - The dean and chief of staff serving as members of the Board of Managers.
  - The requirements for faculty membership of the chief of staff and service chiefs whose salary is paid by the hospital remaining the same, i.e., faculty department chairmen would hold the corresponding positions of chiefs of clinical services in the hospital.
  - All members of the hospital medical staff being required to have faculty appointment or approval in keeping with their medical staff status and privileges.

(5) The Concept of a Board of Managers Is Consistent With Past and Evolving Medical School Arrangements for Clinical Education in the United States

Other academic medical centers have achieved excellence and strength in the hospital management structure as well as the medical education structure even with each functioning as far more separated corporate entities than considered for AUH. This is not to say that the two are mutually exclusive; indeed they are interdependent, but each requires its own highly developed special disciplines exercised in a climate of respect for the other. Arrangements for governance and management of academic medical center hospitals in the United States suggest that the hospital need not be wholly under the direction of the school of medicine.

- Nearly half of the accredited medical schools in the United States conduct all of their clinical education in hospitals not even owned by the university, much less governed by the medical school or university.

<u>Fully Accredited Medical Schools</u>	<u>Hospital Relationship*</u>		<u>Total Medical Schools</u>
	<u>With No University Owned Hospital</u>	<u>With University Owned Hospital(s)</u>	
Private	25	21	46
Public	<u>30</u>	<u>43</u>	<u>73</u>
Total	55	64	119

Source: Council of Teaching Hospitals of the Association of American Medical Colleges

- Among the better known schools of medicine which do not have a university owned teaching hospital are:
  - Columbia University College of Physicians
  - Cornell University Medical College
  - Dartmouth Medical School
  - Harvard School of Medicine
  - Johns Hopkins University School of Medicine
  - Mayo Medical School
  - Northwestern University Medical School
  - Washington University School of Medicine (St. Louis, MO)
  - Yale University School of Medicine
- Most of the newer U.S. medical schools begun in the 1960's affiliated with existing hospitals and have not built or acquired university owned hospital facilities.

- . In all of the non-university owned teaching hospitals excellence of the clinical environment for medical education is assured through:
  - Commonalities of purpose and mutual benefit clearly understood and nurtured by leaders of both institutions.
  - Most importantly, faculty appointment as a prerequisite for physician membership on the hospital medical staff, at least for all leadership positions and usually do obtain admitting and voting privileges.
  - Written contractual agreement of affiliation between the medical school and hospital setting forth the obligations of each to the other.
  - Generally, by individual representatives of either institution sitting as full members of the governing board, management groups and committees of the other, often specifically included in the formal affiliation agreement.

In recent years other universities which own teaching hospitals (as AUH does and would continue to under this recommendation) have either created boards similar to that recommended for AUH for their hospitals or have delegated increased governance responsibilities to existing hospital advisory boards. Among many of these are:

- University of Michigan
- University of Minnesota
- University of North Carolina
- Rush Presbyterian - St. Luke's Medical Center
- University of Washington
- University of Wisconsin.

### 3. ADMINISTRATION AND OPERATIONS

The most significant operating problem for AUH is a lack of qualified managers and supervisors, exacerbated by a shortage of personnel especially in key patient service areas.

(1) Generally, the Hospital Is Severely Understaffed Compared With Teaching Hospitals in the United States

Although comparable data are not fully available, it is possible to compare certain AUH staffing indicators with those for 167 teaching hospitals in the United States. as shown in Exhibit VI-8. Two key assumptions in calculating AUH indicators should be noted: (1) that all individuals worked and were paid an average of one month overtime and (2) that the headcount at November 15, 1982 represents an approximation of full-time equivalents for FY '82.

- . As shown in the exhibit, AUH falls below virtually every staffing indicator and substantially below in most.
- . Of particular concern are the hours of nursing personnel per patient unit since that is an indicator of both quality of care and patient satisfaction.
  - Total personnel on the medical and surgical units is well below that of other teaching hospitals.
  - More significantly, only 29 percent of nursing personnel are registered nurses compared to 39 percent to 49 percent in U.S. hospitals (non-AUB staff nurses are included).
- . Emergency room staffing also is below U.S. norms. Considering that AUH emergency room must cope with substantially more trauma than a U.S. teaching hospital, the gap is even more significant.
- . There are insufficient data for accurate comparisons of other patient service areas; however, similar shortfalls of well trained, qualified allied health professionals/technicians are pervasive.

(2) Many Management and Supervisory Positions Have Been Vacant for Some Time

Among the many supervisory positions not filled, the following are significant examples:

- . Seventeen head nurse positions are vacant.
- . There has been no supervisor of billings and collections for four years.

EXHIBIT VI-8  
 American University of Beirut  
 Comparison-Selected Staffing Indicators  
 AUH and U. S. Teaching Hospitals

<u>Indicator</u>	<u>AUH</u>	<u>U. S. Teaching Hospitals</u>		
		<u>Weighted Average</u>	<u>Lowest Region</u>	<u>Highest Region</u>
<u>Overall</u>				
Full-time equivalent/adjusted occupied bed	3.01	3.77	3.16	4.24
Paid hours/adjusted patient day	18.58	21.63	18.11	24.29
Paid nursing hours/patient day	5.2	8.20	7.35	9.11
<u>Medical &amp; Surgical Units</u>				
Paid hours/patient day	5.0	6.88	6.03	7.35
Percent Registered Nurses	29.2%	46.0%	39.2%	48.9%
Percent Practical Nurses	18.5%	21.6%	19.0%	25.9%
<u>Obstetrics</u> -Paid hours/patient day	4.0	6.20	5.39	7.25
<u>Emergency</u> -Paid hours/visit	2.21	2.57	2.16	2.68
<u>Outpatient</u> -Paid hours/visit	0.94	1.86	1.39	2.24

Source: AUB records and HAS/Monitrend Six Month National Data Book for period ending June 30, 1982;  
 American Hospital Association

- . A search is underway for a deputy controller, a position which has been vacant or filled on an interim basis for some time.
- . There are only two persons in line administrative posts beneath the hospital director (also vacant); one has just completed his graduate education.
- . The director of nursing position has had several incumbents, largely acting, for several years.

(3) Operating Deficiencies Stem from Lack of Managerial Resources, but There is Little Likelihood of Reducing Overall Costs

- . It is alleged that many hospital departments are costly and inefficient.
- . Some departments appear to be overstaffed, however:
  - Some departments lack automated equipment (e.g., laboratory medicine)
  - Others have countered the lack of well trained technical people by greater specialization (and thus more personnel) to help assure quality control.
- . Correction of operating inefficiencies will require strengthening the managerial and supervisory framework for any sustained benefit.
- . Given the present shortage of key personnel, the apparent gap in competitive salaries, and growing needs for new or improved technology, overall hospital costs will rise significantly in coming years.

(4) Hospital Management Should be Responsible for its Own Service Functions Which Are Now Accountable to University Management

Historically, university owned hospitals obtained such services as purchasing and stores, personnel, and maintenance services from the parent university. Similarly, the hospital accounting system was force-fitted to that of the University. Hospitals were then smaller, substantially less complex, and represented a much smaller proportion of a university's business than today.

Today, health care is recognized as the fundamental role of the hospital and the need to hold the hospital accountable for its operation is apparent.

Hospital service functions which should be transferred to hospital management after strengthened management structures and personnel are in place are:

- . Financial management, accounting and control
- . Management Information (purchase of computer time from the University computer center)
- . Budgeting
- . Materials management (purchasing, stores and distribution)
- . Personnel (which should conduct an indepth review of the hospital's wage and salary structure)
- . Physical plant maintenance and grounds.

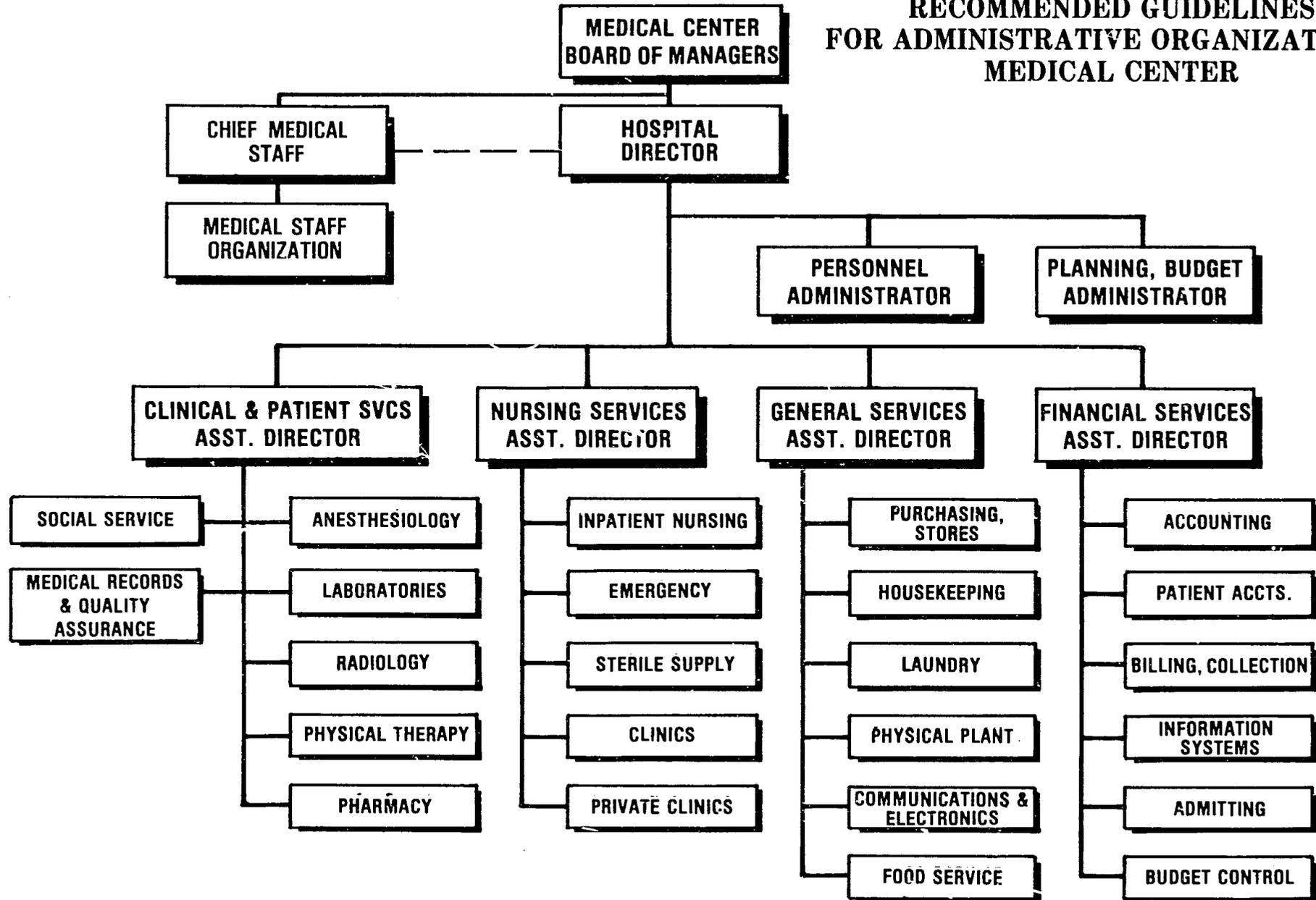
Further consideration should be given to safety, security and sanitation. All of these functions can be set up within University-approved guidelines and with University oversight, but they should be operated by hospital management that is held accountable for their efficiency and effectiveness.

(5) Administrative Organization Should be Strengthened Considerably

The new hospital director should be responsible for developing the administrative organization for approval of the Board of Managers. Exhibit VI-9 is a guide for a new organization showing key managerial positions.

- . Two new positions reporting to the hospital director are needed to manage the personnel and planning/budgeting functions which would not be accountable to the medical center.
- . The head of nursing services would be elevated to an assistant director position.

**EXHIBIT VI-9**  
**American University of Beirut**  
**RECOMMENDED GUIDELINES**  
**FOR ADMINISTRATIVE ORGANIZATION—**  
**MEDICAL CENTER**



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- . The financial services position will be key in establishing strong management control.
- . Mutually compatible hospital services would be grouped together under assistant directors.

(6) The Medical Staff Organization Should Remain Essentially Unchanged, and Should Have Ample Representation Within the Governing Structure

As in the past, the Chief of Staff should be a member of the Faculty of Medicine, appointed by the Dean and confirmed by the Board. Medical practice should/must continue to be within the perview of the medical staff organization.

Close working relationships, and understanding between the Chief of Staff and the Hospital Director are essential. Medical staff matters which impact hospital people and financial resources and hospital matters which impact medical practices will require continuing coordination and communication between the Chief of Staff and the Hospital Director.

(7) Nursing Education Programs Should be Stabilized and Expanded to Meet AUH Needs

- . In recent years, nursing education at AUH has been fragmented among types of programs and sources for direction.
- . The student applicant ratio has been disappointing.
- . Plans for strengthening the nursing programs have been presented and discussed at length, but significant progress is not yet evident.
- . In order to meet the needs of AUH, more stable programs, active student recruitment and structured incentives for graduates to stay at AUH are needed.

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#### 4. REVENUE MANAGEMENT AND PRICING

If AUH is to retain its leadership position in health care, three important factors point to a pressing need to increase revenues substantially:

- . Inflation - on the order of 15-20 percent for the past year
- . Needs to upgrade patient care staffing as well as managerial and supervisory staff
- . Technology improvements (for example, CT scanner, open heart surgery, linear accelerator, patient monitors, etc.).

Two variables have a major effect on revenues - the mix of patients by class and pricing.

##### (1) Relatively Small Changes in the Mix of Patients by Class Can Have an Important Impact on Inpatient Revenue

Exhibit VI-10 compares projections of annual inpatient revenue with two alternate scenarios. While somewhat at variance with actual results, the exhibit shows the sensitivity of inpatient revenue to the mix of patients. Assuming that revenue per patient day and average length of stay remain constant:

- . As shown in Scenario I: 900 more first class patients, a slight increase in second class patients, and restraining third class patients to 100 percent occupancy of available beds would result in additional revenues on the order of \$1.35 million, a 9 percent increase in inpatient revenue.
- . Scenario II assumes an even distribution of beds made available for each class and more realistic occupancy levels for third class patients. The results in additional revenues would be on the order of \$1.9 million, or 12 percent more inpatient revenue than the FY '82 projection.

EXHIBIT VI-10  
 American University of Beirut  
 Comparison of Inpatient Revenue Under  
 Alternate Utilization Scenarios

<u>Patient Class</u>	<u>Est. Rev./ Patient Day*</u>	<u>Patients</u>	<u>Patient Days</u>	<u>Percent of Total</u>	<u>Beds Available</u>	<u>Percent Occupancy</u>	<u>Projected Inpatient Revenue (\$000)</u>
<u>Actual FY '82</u>							
First	\$197.97	4,518	32,438	25%	133	67%	\$ 6,422
Second	137.22	5,099	42,240	32	142	81	5,796
Third	61.27	<u>7,317</u>	<u>55,910</u>	<u>43</u>	<u>146</u>	105	<u>3,426</u>
Total		16,934	130,588	100%	421	85%	<u>\$15,644</u>
<u>Scenario I</u>							
First	\$197.97	5,408	38,836	29%	133	80%	\$ 7,688
Second	137.22	5,321	44,056	32	142	85	6,045
Third	61.27	<u>6,975</u>	<u>53,290</u>	<u>39</u>	<u>146</u>	100	<u>3,265</u>
		17,704	136,182	100%	421	89%	<u>\$16,998</u>
Increase over FY '82							\$ 1,354 = 9%
<u>Scenario II</u>							
First	\$197.97	6,049	43,435	32%	140	85%	\$ 8,599
Second	137.22	5,608	43,435	32	140	85	5,960
Third	61.27	<u>6,390</u>	<u>48,822</u>	<u>36</u>	<u>141</u>	95	<u>2,996</u>
		18,047	135,692	100%	421	88%	<u>\$17,555</u>
Increase over FY '82							\$ 1,911 = 12%

\*Estimated by university management - January, 1982\*projected to June 30, 1983

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(2) Physicians Who Are Part-Time Faculty Members Are Responsible for a Higher Proportion of First and Second Class Patients and Should Be Encouraged to Utilize the Hospital As Much As Possible

As should be expected in a teaching hospital, full-time members of the medical faculty who devote much of their time to education, administration and teaching admit fewer private patients than do private physicians who are part-time faculty members. Likewise full-time faculty members at AUH, because of their teaching responsibilities, admit more "teaching" or third class patients. Thus, as shown in Exhibit VI-11, there are significantly more first class patients admitted by part-time medical staff members.

- . Of the 114 staff members who admitted patients in FY '82:
  - Forty two percent were full-time staff and accounted for 24 percent of the first class patient days.
  - Fifty four percent were part-time staff and accounted for 76 percent of the first class patient days.
- . With regard to second class patients:
  - Forty one percent of the total admitting staff were full-time and accounted for 24 percent of the second class patient days.
  - Fifty three percent of those who admitted patients were part-time and accounted for 76 percent of second class patient days.
- . Since patients, by and large, will be hospitalized in the hospital of their physician's choice, part-time physicians who meet medical staff standards should be encouraged through:
  - Regular communication and feedback
  - Attention to medical staff amenities
  - Representation on the Medical Center Board of Managers.

EXHIBIT VI-11  
 American University of Beirut  
 Patient Day by Class, By Full and  
 Part-Time Physicians  
 July 1, 1981 - June 30, 1982

<u>Patient Class</u>	<u>Full-Time Medical Staff</u>		<u>Part-Time Medical Staff</u>		<u>Admitting Medical Staff</u>	
	<u>Percent*</u> <u>Of Admitting</u> <u>Physicians</u>	<u>Percent</u> <u>Of Class</u> <u>Pt. Days</u>	<u>Percent*</u> <u>Of Admitting</u> <u>Physicians</u>	<u>Percent</u> <u>Of Class</u> <u>Pt. Days</u>	<u>Percent</u> <u>Of Admitting</u> <u>Physicians</u>	<u>Percent</u> <u>Of Class</u> <u>Pt. Days</u>
First	42%	24%	54%	76%	96%	100%
Second	41	24	53	76	94	100
Third	40	51	54	49	94	100
Total	46%	36%	54%	64%	100%	100%

Notes: \*52 full-time physicians admitted patients, not necessarily all classes.  
 62 part-time physicians admitted patients, not necessarily all classes.

Source: Hospital management

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- Creation of a clinical staff category for physicians meeting AUH quality standards but desiring less teaching responsibility. If necessary, physicians in this category could be limited as to the number or priority of patient admissions.

Efforts to increase the proportion of first class patients should not inhibit clinical education:

- On average, there were 44 vacant first class beds in FY '82. Even at a comfortable 85 percent occupancy rate, about 1,500 more first class patients could have been accommodated.
- Private patients can often be an important element of clinical education if they are made aware of what is going on and why. Market surveys in the United States have shown teaching institutions to be the hospitals of choice for serious illness by a majority of people, a considerable turn around from only a few years ago.

(3) Pricing/Charges for Services Should Receive Careful and Regular Management Attention

Although patients are sensitive to price increases, there are indications that significant price increases for first and second class patients can be initiated.

- . Inflation has been 15-20 percent in the past year.
- . Although data are meager for other hospitals, St. Georges and Hotel Dieu charges for room and service are virtually identical with AUH. Reportedly, most other private hospitals follow the lead of AUH and price accordingly.
- . The new payment schedule for NSSF and MOH will provide some relief, but negotiations should be pursued regularly to keep reimbursements as close to ever-increasing actual costs as is possible.

(4) Price Increases Will be More Acceptable if Some Investments Are Made in Those Items Patients Perceive as Contributing to Quality Care

Most patients have little basis to judge professional quality of medical care, and their perceptions are more likely to be influenced by:

- . Reputation in the community and recommendations of friends
- . Perceived caring and amount of contact with nursing personnel
- . Cleanliness and condition of the physical facility
- . Quality of food.

Thus, action to improve these factors can make price increases more acceptable.

(5) The Medical Center Should Set a Goal to Produce Net Income as a Percent of Revenue Equal to the Rate of Inflation

Studies of the economics of U.S. hospitals have shown that unless net income (after interest and fully funded depreciation) as a percent of revenue is approximately equivalent to the rate of inflation, the real value of assets will be eroded. In order to achieve this goal, AUH will need to:

- . Increase revenues
- . Obtain well qualified management who will manage operations tightly
- . Come to agreement on a sound basis for allocations from the Faculty of Medicine for full-time physicians needed to deliver and monitor medical care as contrasted to education.

5. PROGRAM AND CAPITAL NEEDS

In coming years it will be important both to fund depreciation and to earmark net income as reserves for technology obsolescence and inflation. As noted in previous chapters, there is a critical need for a five year capital plan which is reviewed annually and is the basis for the annual capital budget.

(1) Major Capital Outlays Will be Essential in the Near Future in Order to Sustain the Preeminence of the Medical Center

Although further management review is needed, the following represent some of the important capital needs of the Medical Center in the next two or three years:

- . Automated laboratory equipment
- . Critical care units for pediatric and neonatal care
- . Linear accelerator to add to radiotherapy capabilities
- . Upgraded electronic patient monitoring systems in all critical care units
- . Software and terminals for the hospital information system.

A list of replacement needs of only those items which were obsolete, dangerous and urgently needed, prepared in March 1982, totals nearly \$3.0 million.

(2) Other Programs Have Been Suggested, Need to be Explored in Greater Depth, and Could Require Major Capital Outlays

Among suggested longer term programs which will require major study and, if undertaken, will require large capital expenditures are:

- . Extended or "light" care unit for recuperating patients or others requiring less than acute care
- . Physicians' office building adjacent to the hospital for both full and part-time clinicians
- . A renal transplant program.

Choices among these and others should be based on careful planning of the Medical Center's program priorities and areas of selected specialization.

6. SHORT TERM MANAGEMENT STRATEGIES

The highest immediate priority for the Medical Center is to recruit a well-qualified hospital director and to fill the recommended management positions reporting to the hospital director. Although initial efforts have produced several applicants, compensation and security concerns could be important stumbling blocks. In addition, action to establish the Medical Center Board of Managers should be initiated.

(1) Efforts to Fill Recommended Management Positions Should Continue, But if Vacancies Persist Beyond Three Months:

- . An executive search firm specializing in recruitment of health care managers should be retained to find, screen, and present qualified candidates.
- . Requesting proposals from two or three selected companies for a hospital management contract should be considered.
  - Plan at the beginning to phase out the management contract after one or two years and request that this plan be recognized in the proposal.
  - Take care to avoid abdication of governance authority and the ability to support the University's fundamental educational purposes.

(2) Actions to Establish the Medical Center Board of Managers Should be Started as Soon as the Recommendation is Approved

- . Establish a small balanced committee, including the medical center hospital director, if then appointed, to draft bylaws for approval by the Board of Trustees.
- . Appoint internal members.
- . Identify candidates and set a target for all external members to be appointed within one year.

## 7. LONGER TERM STRATEGIES

Completion of a long range plan specifically for the Medical Center, building from the broader work of the University Planning Committee and this study, is sorely needed. Although completion of a long range plan should await the appointment of a new hospital director, the following strategies should be examined in addition to health care program development:

- . Seek and encourage qualified part time (non-paid) members of the medical staff who meet practice standards of the Faculty of Medicine
- . Step up student recruitment and expand the School of Nursing to increase the output of local nurses.
- . Seek opportunities for affiliation or cooperative ventures such as with Hariri and Najjar hospitals to off-load some residencies.
- . As opportunities arise, offer shared services (for a fee) to other hospitals in Lebanon. For example:
  - Group purchasing
  - Laboratory services
  - Computer services
  - Laundry (if capital investment would pay off)
  - Professional consultation in such fields as dietetics, physical therapy, medical records, etc.

## VII. DEVELOPMENT OF EXTERNAL RESOURCES\*

Like all private universities, AUB is faced with the continuing challenge of developing resources beyond its regular income from tuition and fees. Funds from external sources are particularly important to AUB both because of its financial needs and because funding from multiple sources is critical to the preservation of AUB's independence. Apart from its unique source of funds from the U.S. government and its contract services through RADAC, AUB has had limited success in developing a significant revenue flow from external sources. Based on its distinguished position in the region, its alumni body, and the potential "yield" demonstrated by other universities from concentrated development efforts, AUB could anticipate significant increases in external income from an expanded and vigorous development program. The foundation for such a program has begun to be laid in the past few months.

### 1. LEVELS OF EXTERNAL FUNDS (See Exhibit VII-I)

#### (1) Private Gifts Have Declined in Number and Value Over the Past Decade

- . In the five year period 1972-76 the average number of private gifts was 1,189, and the average total giving per year was \$2,094,000. In 1982 dollars this giving value would be more than double.
- . In the five year period 1978-82, the average number of private gifts was 489, and the average total giving per year was \$2,704,000.
- . Alumni giving in the 1978-82 period average \$388,000 from 203 donors, annually. As a percent of the estimated 25,000 AUB alumni, those giving represent fewer than 2 percent, compared to 24 percent among 1,361 American institutions in 1980-91.

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\* This chapter has been developed in close collaboration with Robert Forrester of Payne, Wester, Forrester, and Tidd, the AUB Board's development consultants.

EXHIBIT VII-1  
American University of Beirut  
External Funds 1971-82

SOURCE	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Government Services (\$000)	97	173	190	362	253	110	3	1928	186	3	2	2427
Number of gifts	28	22	23	29	13	5	1	13	3	2	2	3
Total Private (\$000)	1735	2139	2178	2407	2738	1008	3388	3396	2254	2567	3020	2283
Number of gifts	856	1000	1144	1508	1546	748	434	264	238	529	553	862
Alumni*								675	73	561	399	230
Number of donors								79	74	265	250	347
Total (\$000)	1832	2312	2368	2769	2991	1118	3391	5324	2440	2620	3022	4710

\*Included in Total Private

Source: Data compiled by Payne, Wester, Forrester and Tidd from AUB records.

(2) Funds From Government Grants Have Varied Substantially From Year to Year

- . The number of grants from non-U.S. government sources has dropped drastically since the 1970's, and the value has ranged from a few thousand dollars annually to a few million.
- . Grants from the U.S. Agency for International Development have been at the level of several million dollars annually in recent years, but represent a declining share of total university revenues.

2. AUB PROGRAMS AND RESOURCES

(1) The Lack of a Clear University Strategy Together With Unsettled Conditions in Lebanon Have Impaired Fund Raising

- . The principal appeal for external funding has appeared to focus on maintenance of current programs and facilities. No bold vision for the future or major expansion program has recently provided underpinning for development. Again, this has begun to change over the past year and can and should be accelerated with adoption of the President's recommendations based on this report and that of the University Planning Committee.
- . The emergency appeal based on extraordinary costs incurred during the summer of 1982 has generated significant funds from North America, but should be replaced by a more compelling university strategy and development program for the balance of the century.

(2) AUB Activities to Develop External Funds Have Been Constrained by Personnel Limitations

- . One professional position in Beirut titled "Assistant to the President" has carried full staff responsibility for fund raising in the Middle East. No matter how heroic the performance of the incumbent, the challenge and opportunity far outweigh the capacity of a single staff person.
- . In New York, a single professional carries similar staff responsibilities for fund raising in North America.

- . The Board of Trustees -- a typical source of external funds in private universities -- has demonstrated only a modest level of effort and results. Although the Board's efforts have grown substantially over the past year under leadership of its Development Committee, the level of "giving or getting" is well below that typical of private universities.

(3) Funding of AUB's Development Programs Has Been Meager

- . Across the 10-year period of 1973-1982, annual direct expenditures for development have averaged \$182,000, about one percent of the Education and General (E&G) Budget.
- . Development expenditures have averaged -- over the same decade -- about 5.9 percent of external funds raised. Most American private universities spend twice this percent of funds raised, suggesting that AUB efforts have yielded good results from meager expenditures.
- . In the past 5 years, AUB has spent less in absolute dollars and at only half these ratios as compared to the 1973-77 period.

<u>Costs as % of</u>	<u>1973-77</u>	<u>1978-82</u>
- E&G Budget	1.44%	0.4%
- Funds Raised	8.4%	4.2%

Source: Payne, Wester, Forrester and Tidd from AUB records.

- . The declining effort and yield of the 1978-82 period is of particular concern because most of the funds raised can be attributed to earlier development efforts and pledges. Few new sources of external funding have been developed.

### 3. A PROGRAM FOR THE FUTURE

AUB faces a unique challenge in developing external resources.

- . Although respect for its heritage and continuing role is widespread, doubts arise among potential donors as to whether AUB can build a program of academic excellence within its unsettled external environment.
- . Some of its past development programs look extravagant and unrealistic in retrospect.
- . The arrival of other universities in the Middle East sharpens the competition for regional philanthropic funds.

To meet this unique challenge, AUB needs a clear and compelling strategy and program. AUB should adopt a strategy for the University and a long range program for developing its external resources.

#### (1) Chapter I of This Report Presents a Proposed Strategy of:

- . Streamlined and modernized curriculum
- . Strengthened finances
- . Improved hospital operations
- . Increased enrollment.

This - or another - strategy should be adopted and become the foundation for a program to develop external resources.

#### (2) A Long Range External Resources Development Plan Should be Created That Sets Revenue Goals

- . For programs and facilities that support the strategy.
- . For donor group, such as alumni, foundations, trustees, friends -- in Lebanon, the region, and the United States.
- . For types of support, such as capital, annual (unrestricted), project, endowment, scholarship, etc.

(3) A Full Range of Focused Activities Should Be Undertaken

- . Although rich in specific variety, these activities -- all focused by program, priority and target -- consist mainly of communications about the University, its plans and needs. Mailings, visual presentations, visits, meetings are examples.
- . Important to all of them is the request for support -- clearly presented and tailored to the prospective donor's interests.
- . Thorough support and followup systems are essential to effective fund-raising, and create the need for the resources described below.

(4) A Commitment Should Be Made to Sustain This Program For Several Years

- . Sporadic development efforts cannot build the base of external support -- particularly from alumni -- that AUB needs.

4. ORGANIZATION AND RESOURCES

To carry out its development program for the future, AUB needs a stronger organization and more resources. Action in this direction began with adoption of the President's 1983-84 budget.

(1) Leadership Should Come From the Board of Trustees

- . All trustees should be acquainted with their "give or get" responsibilities. Although not all trustees should be expected to perform equally in this role those who decline any responsibility for fund raising have a heavy burden to demonstrate an equivalent contribution in another role.
- . Other distinguished persons willing and able to assist in the University's development activities should be enlisted in an Advisory Committee (see Chapter III) or, possibly, associated with the AUB Foundation.

(2) The Alumni Should Be Mobilized in Support of the University's Development Program

- . The conventional explanation for the low AUB alumni giving participation is that such philanthropy toward one's university is not customary in the Middle East. This explanation invites skeptical scrutiny in light of the exceptional generosity of Middle Eastern people in other areas. In view of the limited and sporadic communications and asking programs toward alumni in recent years, a fresh look at alumni giving should be taken.
- . A seminar of key alumni to conceive a richer program and organization, followed by an expanded communications program to alumni should pave the way for substantial increases in support from this source.
- . The success of other aspects of the development program will hinge crucially on the substantially expanded alumni role -- both as donors and as solicitors of the gifts of others. Major givers such as foundations and corporations, in considering grants to AUB, will always examine the record of the alumni as a key basis for contributions.

(3) The Development Program Should be Directed by a Senior Officer Reporting to the President

- . As indicated in Chapter III, a Vice President-Development should be in overall charge of the program. He should be based in Beirut as part of the President's immediate management team.
- . A senior development officer in the United States is warranted, particularly to support North American alumni activities, development efforts of trustees, and efforts toward American agencies, institutions, and corporations. The use of the title Executive Vice President of the AUB Foundation is suitable for this officer, who should report to the Vice President-Development when that position is filled.

(4) Budgeted Expenditures in the Range of Three Percent of Education and General Expenditures Can Probably Be Justified

- Such a budget would exceed \$1,000,000, more than double that approved for FY 83-84. A year or two of further planning should precede consideration of such levels, which are based on the successful experience of comparable American private universities.
- As a rule of thumb "one dollar of incremental development expenditures raises five dollars in revenue", averaged across several years of a well established program.
- Expenditures are principally for staff -- on the order of 6-9 in Beirut and two-thirds of this number in New York -- both by the second year (84-85).

(5) The Resource Level Will Also Be Influenced by the Specific Functions Placed in the Development Office

These functions should include all giving and alumni programs, together with support resources. The organizational placement of publications and grant programs is a detail to be resolved by the President among his principal officers. The public relations and grant programs of the University have aspects relevant to the normal duties of both the Vice President-Development and the Vice President-External Activities. All university publications should be sensitive to AUB's fund raising goals and "cleared" by the Vice President-Development from this perspective. Similarly, grant requests should be co-ordinated so that approaches to funding sources follow university-wide priorities. Specific allocation of relevant duties among these two officers should be determined by the President.

APPENDIX  
Principal Recommendations and Responsibilities

<u>Reference</u>	<u>Recommendations</u>	<u>Responsibility</u>
I. Aims and Goals	- Preserve All Major Elements of AUB Heritage	Board of Trustees
	. Redefine liberal education to enhance "technological literacy" as part of "New Liberal Arts"	President
	- Strengthen the University's Financial Position	Board of Trustees President
	- Operate the Hospital as a Business	President
	- Expand Programs in Three Strategic Directions	President
	. Professional education	
	. Programs beyond the campus	
	. Computer literacy	
	- Reshape Agriculture and Food Sciences	Board of Trustees on recommendation of President
	- Expand Enrollment	Board of Trustees on recommendation of President
II. Finances	- Increase Prices to Reflect Costs, Inflation, Demand, Uncertainty	Board of Trustees on recommendation of President
	. Establish minimum standards for cost coverage	
	. Establish coverage ratios of 110 to 120 percent for auxiliary enterprises and hospital charges	

<u>Reference</u>	<u>Recommendation</u>	<u>Responsibility</u>
II. Finances (con't)	<ul style="list-style-type: none"> <li>- Strengthen the Budget/Planning Process               <ul style="list-style-type: none"> <li>. Develop five-Year capital budget for facilities and equipment</li> <li>. Develop three- to five-year program budgets for current and modified levels of operations</li> <li>. Use the financial planning model for developing projections</li> <li>. Adopt proposed budget preparation schedule</li> <li>. Standardize financial reports and present financial data in actual currency involved</li> <li>. Augment financial and administrative staffs</li> </ul> </li> </ul>	President
III. Organization, Management and Administration	<ul style="list-style-type: none"> <li>- Strengthen University Organization and Management by Creating a Structure Providing for:               <ul style="list-style-type: none"> <li>. Three Vice-Presidents overseeing major operations of the University: Academic Affairs, Finance and Administration, and External Affairs</li> <li>. Two Vice-Presidents performing staff functions with more limited supervisory responsibilities: development and United States</li> <li>. A Medical Center Board of Managers and hospital director</li> </ul> </li> <li>- Consider Establishing a University Advisory Council</li> </ul>	Board of Trustees on recommendation of President
		Board of Trustees

<u>Reference</u>	<u>Recommendation</u>	<u>Responsibility</u>
III. Organization Management and Administration (con't.)	- Improve Management Communications and Team Work	President
	- Establish Management Reporting System	President
	- Examine Potential for Contracting Out for Services Such As: <ul style="list-style-type: none"> <li>. Building/grounds maintenance</li> <li>. Laundry</li> <li>. Food Service</li> </ul>	Vice-President, Finance and Administration
	- Develop Three-Phase Plan for <u>Expanding Computer Use</u> for Administration, <u>Teaching</u> , and <u>Research</u> and Service	President
	- Recommend University Office Arrangements in the United States	President
IV. Curriculum and Students	- Develop a Plan to Replace and Upgrade Laboratory Facilities	President
	- Reshape Curricula to Favor Fields of Study With High Applicant-Enrollee and High Cost-Coverage Ratios	President
	- Build Graduate Programs in Fields of Existing Strengths and With Attractive Ratios	President
V. Personnel Compensation	- Establish a Comprehensive Differentiated Compensation Plan Which Recognizes Both Academic and Professional Markets	Board of Trustees on recommendation of President
	- Institute Work Improvement and Training Programs to Enhance Support Staff Productivity	President

<u>Reference</u>	<u>Recommendation</u>	<u>Responsibility</u>
VI. Academic Medical Center	- Adopt Organization Plan Establishing a Medical Center Board of Managers, a Hospital Director and Placement of Faculty Deans Under the Vice President - Academic Affairs	Board of Trustees
	- Assign Responsibilities to Hospital Management for Its Own Service Functions	Board of Trustees on recommendation of President
	- Strengthen Administrative Organization by Implementing New Organization Structure	President
	. Two executives to manage the personnel and planning/budgeting functions	
	. The head of nursing services elevated to assistant director	
	. Strong management control over finances	
	. Compatible hospital services grouped under assistant directors	
	- Increase Prices to Keep Pace With Inflation and Modern Technology Requirements, Establishing a Goal of Producing Net Income as a Percent of Revenue at Least Equal to the Inflation Rates	Board of Trustees on recommendation of President
- Encourage Part-time Physician Faculty Members to Increase Their Use of the Hospital for First and Second Class Patients	Hospital Director	
- Develop a Plan to Acquire New Equipment to Maintain and Expand Services	Hospital Director	

<u>Reference</u>	<u>Recommendation</u>	<u>Responsibility</u>
VI. Academic Medical Center (con't.)	- Accelerate the recruitment of managerial staff	President
	- Expedite establishment of Medical Center Board of Managers	Board of Trustees
	- Formulate longer term strategy addressing such subjects as affiliation, shared resources, and co-operative venture arrangements with other hospitals	President
VII. Development of External Resources	- Adopt a University strategy as a foundation for developing external resources	Board of Trustees on recommendation of President
	- Develop long range plan with revenue goals for programs, donor groups and types of support	Vice President-Development
	- Undertake a full range of development activities with a commitment to sustain a strengthened development program over several years	Vice President-Development
	- Provide leadership from Board of Trustees	Board of Trustees
	- Mobilize alumni in support of the development program	Vice President-Development
	- Designate a Vice President-Development to direct the program	President
	- Expand resources for external development - eventually to the range of 3 percent of education and general expenditures	Board of Trustees on recommendation of President