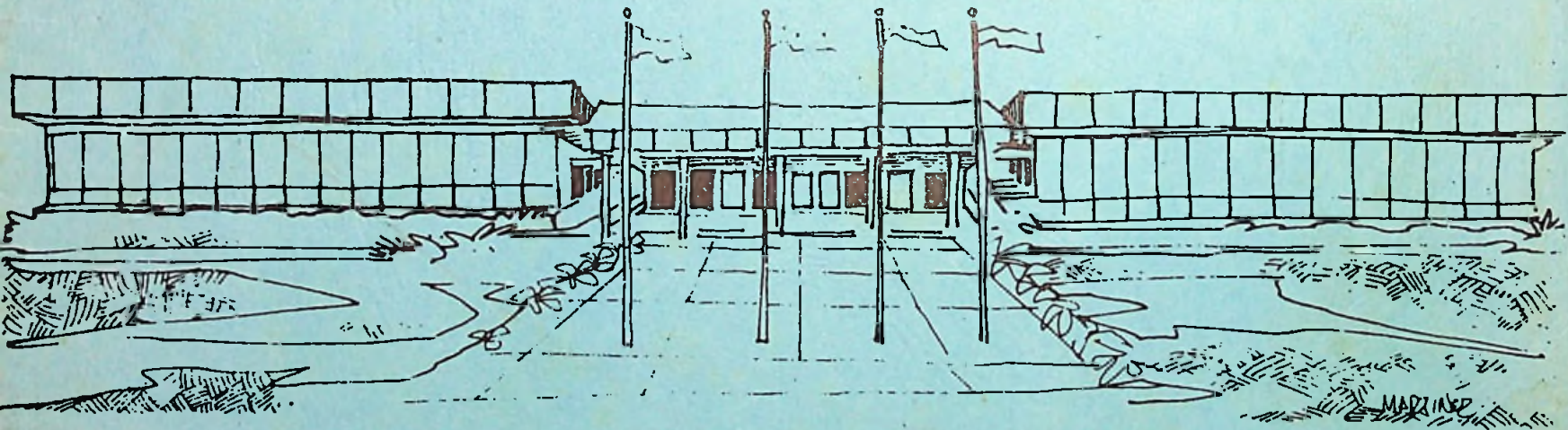


UNIVERSITY OF PUERTO RICO
ADMINISTRATION OF REGIONAL COLLEGES



BAYAMÓN
REGIONAL
COLLEGE



self·study report

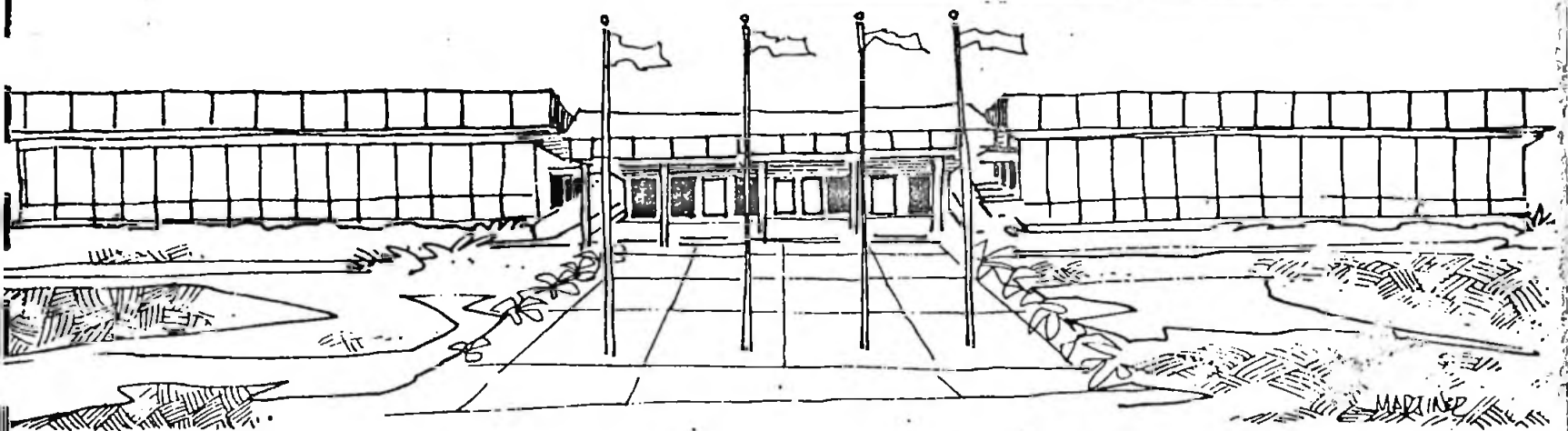
1974 • 75

UNIVERSITY OF PUERTO RICO
ADMINISTRATION OF REGIONAL COLLEGES

PRESENTED TO:
THE COMMISSION ON HIGHER EDUCATION
MIDDLE STATES ASSOCIATION OF
COLLEGES AND SECONDARY SCHOOLS



BAYAMON
REGIONAL
COLLEGE



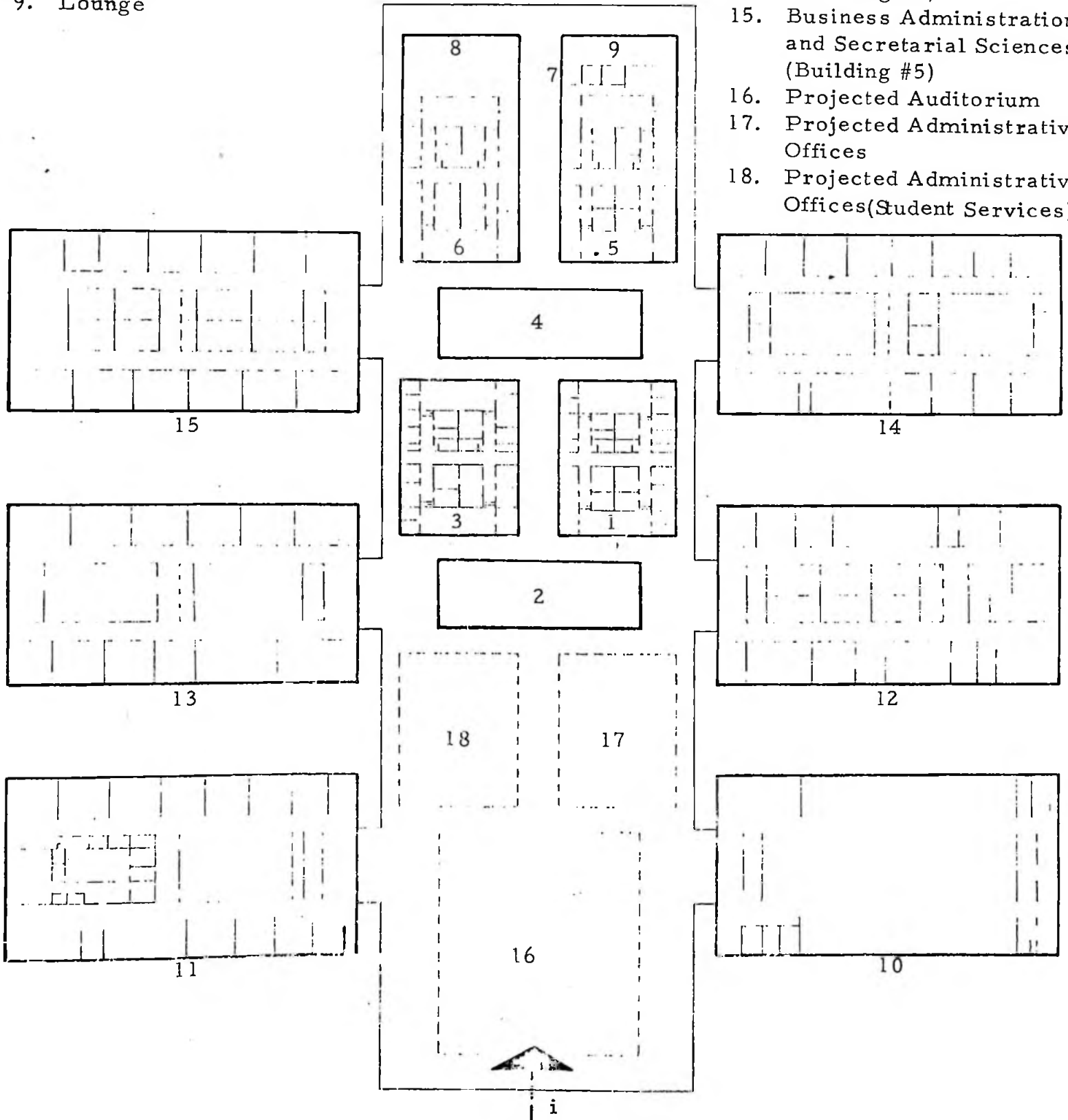
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CAMPUS LAYOUT

1. Temporary Administrative Offices
2. Coffee Shop
3. Temporary Student Services Offices
4. Bookstore
5. Professors Offices
6. Professors Offices
7. Medical Dispensary
8. Game Room
9. Lounge

10. Learning Resources Center I (Building #4)
11. Learning Resources Center II (Audiovisual-Building #3)
12. Science and Engineering (Building #2)
13. Technology (Building #1)
14. Dietetics and Education (Building #6)
15. Business Administration and Secretarial Sciences (Building #5)
16. Projected Auditorium
17. Projected Administrative Offices
18. Projected Administrative Offices (Student Services)



INSTITUTIONAL SELF-STUDY

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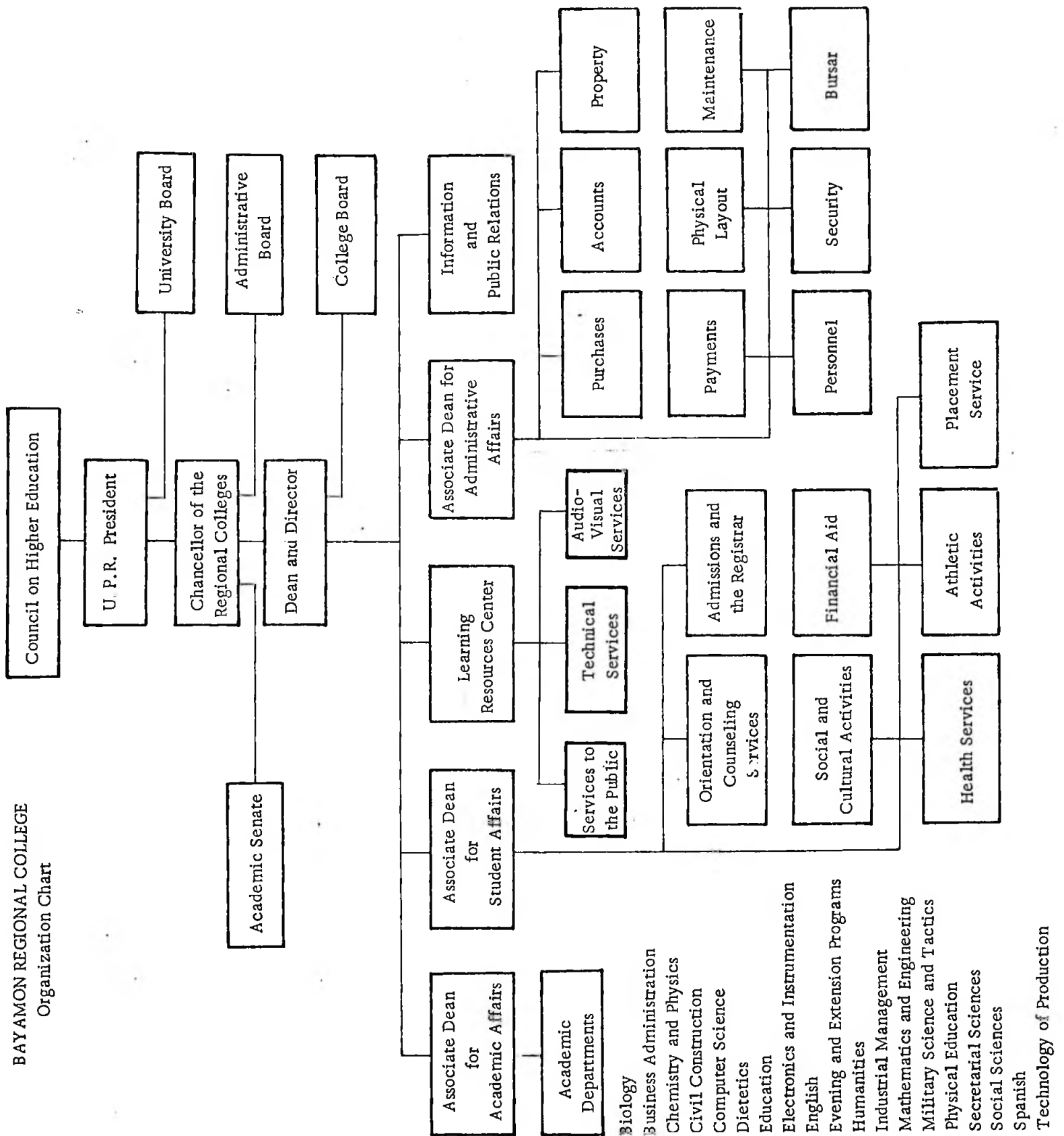
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BAYAMON REGIONAL COLLEGE
Organization Chart



Chapter I. PREFACE

The Bayamón Regional College was indeed very young when it first received accreditation by the Middle States Association on November 1, 1971. This accreditation was granted on the basis of a visit made by Dr. C. Puffer and a document titled: "A Report of Bayamón Regional College" dated October 22, 1971. It was due to its extremely short existence then (it was three months old at the time), that the College was far from settled when that accreditation took place.

At present, the Bayamón Regional College is still quite young. It is only three years old and its academic, administrative and student-faculty affairs find themselves in the midst of an active process of formation. Nevertheless, the College, in seeking reaccreditation now, has been provided with the opportunity of looking back and analyzing and evaluating itself and its reason for being, at a time when a bit of the initial frenzy is ceding.

One must state that it is undeniable that the Institution has been in a process of self-evaluation throughout its existence: its short existence and the youthful attitude of its administrators and professors have imbued it with a need for self-analysis and accounts for that, but the subject of reaccreditation has served to remind the College that this self-analysis had to be one of depth, thoroughness and all inclusiveness if it was to be of benefit to the College. Consequently, a series of measures were taken in order to aid the

College in achieving effectiveness and usefulness in this process of self-analysis. The first step was the creation of a steering committee for the purpose of coordination. An office was then set up in an effort to channel all self-study activities through a single medium, as well as to provide a depository of reference documents, and a timetable of major activities was set.

In detail, the Bayamón Regional College Steering Committee came into existence in April of 1973 and served as a general executive body for the coordination of all self-study activities. It includes representatives from the diverse areas of our College's organization, namely the academic, administrative and student areas and its composition settled as follows:

| | | |
|-----------------------------------|---|---|
| President | : | Professor Ausberto Guilbe Associate Dean for Academic Affairs |
| General Coordinator of Activities | : | Professor David Edmondson Chairman of the English Department |
| Editor | : | Professor Luz E. Rijos Instructor, English Department |
| Consultant | : | Engineer Félix L. Ortiz Dean and Director of the Bayamón Regional College |
| Other Members | : | Professor Marcos Morell Associate Dean for Student Affairs |
| | | Professor Fernando Sulsona Associate Dean for Adminis- trative Affairs |

Professor Oneida Ortiz
 Director of the Learning
 Resources Center

Professor Georgina Fernández
 Chairwoman of the Business
 Administration Department

Dr. José I. Romero
 Chairman of the Biology
 Department

Mr. Luis Burgos
 President of the Student Council

A set of sub-committees were also appointed and these had as objectives the handling of the coordination of more specific tasks within the framework of self-study and reaccreditation activities and the presentation of the core of the self-study material itself.

These settled as follows:

Committee on Academic Programs

*Prof. Ausberto Guilbe, Associate Dean for Academic
 Affairs

Other members:

Directors of Academic Programs
 (Subcommittee Presidents)
 Two student representatives

Committee on Student Body

This committee is made up of students only.

*Efraín Martínez
 Manuel Frau
 Lisette Samalot Flores
 Lizann Plá

Committee on Student Services

*Prof. Fred Reichard
 Prof. Marcos Morell Corrada
 Prof. Maritza Colón
 Mr. Ramón Mercado
 Two student representatives

Faculty Committee

*Prof. Raúl Pérez
 Prof. Eduardo Vázquez Bote
 Prof. José Medina
 Prof. Carmen Cabiya
 Two student representatives
 Moisés Rodríguez
 José Negrón

Committee on Finances and Accounting

*Prof. Faustino Perdomo
 Prof. José I. Irizarry
 Mr. Osvaldo Albarrán
 Two student representatives (Awilda Ronda y Roberto Morales)

Committee on Physical Layout and Equipment

*Prof. Julio Marrero
 Prof. Fernando Sulsona
 Prof. Rafael Elias Muñiz
 Dr. Constantino Alvarez, Representative for Planning Area
 Two student representatives
 Rafael Sánchez Cortés
 José R. Rivera Juan

Committee on Community Relations

Prof. Félix Luis Ortiz, Dean and Director
 A member of each Advisory Committee to the Bayamón Regional College
 Mr. Pedro Hernández, Public Relations Coordinator, Bayamón Regional College
 Miss Luz Teresa Martínez Vela, ex-alumnus
 One High School student (Senior)
 *Mr. Angel A. Pabón, Director of Social and Cultural Activities

Committee on Data and Reports

*Prof. Benjamín Hernández
 Prof. Leonidas Santiago
 Prof. Ricardo Coronado
 Prof. Dora Martínez
 Four student representatives
 Isabel Matos
 Oneida Olivieri de Jesús
 Carlos Rodríguez
 Asia Sánchez

Committee on Follow-up Studies

Miss Mari Rosa Pont, President of the Class of 1974
 Mr. Jaime Rodríguez, President, Alumni Association
 Prof. Richard D'Costa

*Prof. Angel Bonilla

Mr. José Gandía

A representative of the Labor Department and a
 representative of the Personnel Office

Committee on Learning Resources

*Prof. Oneida Ortiz

Prof. Iván Martínez

Prof. Belén Quiñones

Prof. Caroline Moscoso

Prof. Cándido Mercado

Two student representatives

The editor then re-arranged, organized, edited, and translated the reports of the committees so as to produce a final, coherent self-analysis report of the College as a whole.

It was this series of activities, then, which produced this document that the Bayamón Regional College presents to the Middle States Association Evaluation Team. It is hoped that it will provide this Team the core of material which will enable it to see the College as it has found itself to be, after carrying out a thorough self-analysis.

The College, on the other hand, can honestly say that this official self-analysis has helped it to see its assets and shortcomings in an honest and realistic manner. It has helped the College to consider ways of maintaining the excellence of those assets and to

*Presidents

think of means by which to overcome those shortcomings. Furthermore, the College has been brought to view self-analysis as a dynamic process and not a product; hence, it expects to continue to carry about self-evaluation: analyzing, updating, and bettering its academic excellence and overall performance for its own improvement and the improvement of Puerto Rico as a consequence.

Chapter II. AN OVERVIEW OF THE BAYAMON REGIONAL COLLEGE

2.1 Historical Review

"El Regional" as this college is warmly referred to by the Bayamón community, opened its doors in August of 1971. During this first academic year only Buildings #1 and #2 existed for an enrollment of 513 students with a faculty of 36. At present we have six buildings* located on 73 acres which were donated by the municipality of Bayamón.

The student body has rapidly increased more than fivefold since its beginning. The number of students registered during the academic years 71-72, 72-73, 73-74, and 74-75 were 513, 1661, 2520, and 2829 respectively. Programs offered, the number of faculty and administrative staff, as well as physical facilities have also increased but not in a similar geometric ratio due to budgetary limitations. Increasing costs combined with an unexpected constant budget have forced the College to temporality curtail night classes, raise the normal teaching load to 15 credit hours in many cases, increase class size, etc. The lowering of student enrollment for next year is being studied and is most likely inevitable.

The College serves the eleven municipalities of Bayamón, Guaynabo, Cataño, Dorado, Comerío, Naranjito, Toa Alta, Corozal, Orocovis, Toa Baja, and Vega Alta. The first three are areas of concentrated population characterized by rapid industrial growth and intense economic development. Consequently, the Bayamón Regional College is striving to direct all its educational thought and endeavors to

*Five completed and one in process.

the needs of the community which these particular factors elicit.

Dramatical changes in Puerto Rican society and culture during the past thirty years have brought about the need for more specialized training in semi-professional and technical programs. Through interaction with the surrounding community (i, e, Advisory Committee) we have come to realize this even more so. And thus the College is carving its own identity: molding, adapting, and growing to meet, in a realistic manner, the demands and challenges with which it is confronted.

Our philosophical stance as an institution of higher learning is revealed in the following statements of our general and specific objectives. These objectives have been and will continue to be a guide for future planning and possible changes as well as something tangible which we may continually analyze in an effort to make sure that we are meeting them. An invaluable part of this self-study report has been the follow-up studies on how well we are doing in these endeavors.

2.2 Mision and Objectives

General Objectives

1. To stimulate in the student: the application of the scientific method in his quest for universal truths, the exercising of his intellectual critical judgement, and the proper use of liberty through an awareness of his responsibility toward other members of society.
2. To collaborate with the community it serves in the preparation of the personnel that the socio-economic development of Puerto Rico demands.

3. To offer activities which will provide members of the University community, as well as members of the community served by the Bayamón Regional College and that of Puerto Rico as a whole, with cultural enrichment.

Specific Objectives

1. To develop and offer semi-professional and technical programs in areas of high employment potential, complemented by courses in liberal arts, leading to associate degrees.
2. To develop and offer programs in liberal arts and sciences which, upon transferring to an institution of higher learning, will enable students to successfully continue the final years of studies leading to a bachelor's degree.
3. To provide programs for the academic improvement of high school graduates with a grade point average which is lower than 2.00.
4. To establish and offer additional remedial courses in order to give students with limitations a better opportunity for success in future basic courses in the verbal and numerical skills.
5. To offer a variety of social, academic, cultural, and athletic activities which will promote a more active participation on the part of the community as a whole.

6. To strenghten communication ties between the Institution and: high schools, other University Regional Colleges, government agencies, industry and commerce.

2.3 Institutional Data Summary*

Bayamón Regional College
of the University of Puerto Rico
P. O. Box 4296 Bayamón Gardens Station
Bayamón, Puerto Rico 00620

A co-educational and bilingual instructional unit offering technical career-oriented programs leading to an associate degree in Electronics, Instrumentation, Civil Construction, Land Surveying and Highway Design, Mechanical Technology, Industrial Management, Computer Science, Dietetics, Secretarial Sciences, Elementary Education, Accounting and Business Management. Also offers the first two years of programs leading to the bachelor's degree in Liberal Arts, Natural Sciences, Engineering, Business Administration, Secretarial Sciences and Secondary Education.

Fall enrollment totalled 2,829 students for 1974-75: about 48% female, 52% male. Accreditation by the Middle States Association of Colleges and Secondary Schools and a member of the American Association of Community and Junior Colleges.

SPONSORSHIP AND CONTROL - State-supported since its foundation in 1971. Governing board: Council on Higher Education. Membership: Secretary of Public Instruction and 8 members appointed by the Governor of Puerto Rico, with the consent of the Commonwealth Senate and who represent public interest on higher education. The President of the University of Puerto Rico is the executive director of the entire University System. The Bayamón Regional College is under the authority of a Director-Dean and forms part of the Administration of Regional Colleges, headed by a Chancellor.

FACULTY - The faculty consists of 1 full, 6 associate, 28 assistant professors and 65 instructors. There are also 2 lecturers and 6 lab assistants. The normal teaching load of 12 to 15 credit-hours may be reduced by allocations for administrative assignments.

ADMISSIONS - Graduates from accredited high schools with C (2.00) average and 12 units in last 3 years of studies. SAT Spanish version required. Financial assistance is provided to about 60% of full-time students.

LEARNING RESOURCES CENTER - Presently occupies an area of 21,600 square feet and has 20,000 volumes and a collection of periodicals and audio-visual units totalling 26,089 resources.

FINANCES - The budget for the fiscal year 1974-75 is \$2,290,657 and comes, in its entirety from the General University of Puerto Rico Budget funds allocated to the University of Puerto Rico by the Commonwealth.

PLANT - Five main buildings with an average gross-space capacity of 22,000 square feet each, house classrooms, labs and the Learning Resources Center. Seven additional smaller buildings, house the administrative and professor's office, and the general-services units. Another large building to house the Audio-Visual department will soon be completed.

RECENT SIGNIFICANT CHANGES - Inauguration of the new and modern facilities to house the Learning Resources Center.

*As of December 1974.

Chapter III. ADMINISTRATIVE ORGANIZATION

The Bayamón Regional College operates as a part of the University of Puerto Rico System. It has thus been considered convenient to view the College administrative organization within the general framework of that system in order to better analyze its performance. A description of the Bayamón Regional College's Administrative Organization within the system as a whole is consequently included, followed by our appraisal of its assets and limitations.

3.1 The University of Puerto Rico System

The University of Puerto Rico has a series of administrative units forming a university system. These autonomous units are: The Campuses at Río Piedras, Mayaguez, Medical Sciences, and the Administration of Regional Colleges under which the Bayamón Regional College and five other regional colleges operate. There is also a University College of Cayey which is administered by the President of the University.

The maximum authority of this system is the Council on Higher Education, which as its primary responsibilities the promotion of higher education in Puerto Rico, the formulation of directives which will determine the orientation and development of the University as a whole, and the supervision of the overall operation of the University. The Council appoints the President of the University, who is the director of the entire system. The President, in this capacity, acts as the official representative of the Council and the

University Board collaborates with him in the coordination and supervision of the operation of the institution. The President, within his obligations, proposes to the Council the candidates to be named Chancellors of the administrative units, after consulting with their respective Academic Senates.

The University Board is, on the other hand, the body which, by authority of the Council on Higher Education, maintains an integrated system in relation to the overall planning of the University and advises the President with respect to coordination of the academic, administrative, and financial affairs of the different institutional units. The Board and the President may thus initiate any action directed toward institutional development and coordination they consider necessary. This action, however, must not present infringement of the authority invested upon the units, in recognition of their autonomy.

3.2 The Administration of Regional Colleges

The Administration of Regional Colleges is the autonomous unit within the University which has as its primary responsibility the articulation, coordination, direction, and supervision of all the academic, student, and administrative affairs of the existing Regional Colleges: Bayamón, Ponce, Carolina, Arecibo, Humacao and Aguadilla, as well as of those which may be established in the future.

The Director of this unit has the title of Chancellor and

is the nominating authority within it. A Dean of Academic Affairs and a Dean of Administrative Affairs aid him in meeting his responsibilities. The Administration of Regional Colleges has, in addition, an Administrative Board and an Academic Senate which the Chancellor presides. The Administrative Board advises the Chancellor in his duties, considers the budget he submits, grants by his recommendation: leaves of absence, academic ranks, tenure, and promotion of all the personnel of the institutional unit, and elaborates the plans and projects of the Administration of Regional Colleges. The Academic Senate, on the other hand, deals with the academic aspects of the Administration of Regional Colleges. Apart from its academic obligations, the Senate also has the following responsibilities:

- 1- To establish the general policies which will govern the hiring and the granting of tenure, promotion and leaves of absence of the Faculty.
- 2- To participate in the consultation process to name the Chancellors of autonomous units and the Deans which do not head a faculty or College.
- 3- To elect from among its members its representative to the University Board.
- 4- To submit an annual report to the Faculty.

The Regional Colleges are operated with a considerable portion of autonomous decisions due to the geographical separation of the Colleges. The policies directing the Colleges, however, are in accordance with the integrated operation of the Colleges within the Administration of Regional Colleges and within the University system.

Other campuses are not related to the Colleges except for the coordination of the programs to which students to the Regional Colleges may wish to transfer.

3.3 The Bayamón Regional College

As it is one of the five existing colleges operating under the Administration of Regional Colleges, the administrative organization of the Bayamón Regional College is coordinated with the University System through the previously mentioned bodies so that its programs of studies and the teaching and administration of the College are consistent with the policies, regulations and norms established for the University of Puerto Rico as a whole.

The Bayamón Regional College is directed by a Dean and Director. To aid him in carrying out his responsibilities, the Dean and Director has an Associate Dean for Academic Affairs, an Associate Dean for Student Affairs, an Associate Dean for Administrative Affairs, and an advisory body known as the College Board. A description of this Board, these executive positions and divisions of the College follows:

3.4 Internal Organization of the Bayamón Regional College

The Dean and Director

The Dean and Director is appointed by the Chancellor of the Administration of Regional Colleges and confirmed by the Council on Higher Education. The Dean and Director presides

Faculty meetings and the College Board, represents the College at official functions, and is responsible for all the academic and administrative operations of the College.

The College Board

The Board is an advisory body which works with the Dean and Director in carrying out the program of the College. It is composed of the Dean and Director who is its President, the Associate Deans, four members elected by the Faculty, and the Director of the Learning Resources Center.

Among its functions are the following:

- 1- To advise the Dean and Director in the selection of teaching and technical personnel, in matters pertaining to leaves, changes in rank and tenure, on complaints and grievances from Faculty members and students, and on any matter which he may wish to consult.
- 2- To study and make recommendations of new programs and to recommend social and cultural activities.
- 3- To study and make proposals on the academic philosophy of programs and courses offered.
- 4- To serve as a two-way communication link between the Dean and Director and the Faculty.

The Associate Dean for Academic Affairs

The Associate Dean is responsible for the supervision of the academic departments. He oversees all academic matters and assumes the functions of the Dean and Director in his absence.

The Associate Dean for Student Affairs

This Associate Dean is responsible for all student matters. He directs the services of: Admissions, the Registrar, Financial Aid, Counseling, Cultural and Social Activities, Athletic Activities, and the Health Services Office, and he is responsible for student discipline.

The Associate Dean for Administrative Affairs

This Associate Dean is responsible for all administrative matters such as: preparation of the budget document, purchases, property, maintenance, payments, complementary services, etc.

The Learning Resources Center

This Center is the administrative unit which integrates printed and non-print forms of communication resources with the necessary equipment and services which permit their utilization. It is, consequently, subdivided into: Services to the Public, Audio-Visual Services and Technical Services. The Center assists in the development of the College and the community it is in, by providing the necessary resources to complement curricular demands, by stimulating both the Faculty and the students intellectually thus keeping them abreast of new materials and trends, and by offering its services to the community.

The Public Relations Office

This is the office responsible for informing the community, the press and the general public of the policies, services, and activities of the College. It serves, in general, as a two-way communication link between the College and the public.

The Divisions

Each major area of responsibility is further subdivided into operating units to suit the purpose of each area. These units are:

Academic Departments

- 1- Biology
- 2- Business Administration
- 3- Chemistry and Physics
- 4- Civil Construction
- 5- Computer Science
- 6- Dietetics
- 7- Education
- 8- Electronics and Instrumentation
- 9- English
- 10- Evening and Extension Programs
- 11- Humanities
- 12- Industrial Management
- 13- Mathematics and Engineering
- 14- Military Science
- 15- Physical Education
- 16- Secretarial Sciences
- 17- Social Sciences
- 18- Spanish
- 19- Technology of Production

These departments are responsible for the development, evaluation, revision and supervision of their courses. Each is headed by a Chairman who is recommended for appointment to the

Chancellor by the Dean and Director of the College.

Student Services

- 1- Orientation and Counseling Services
- 2- Admissions
- 3- Registrar
- 4- Social and Cultural Activities
- 5- Health Services
- 6- Athletic Activities
- 7- Placement Service
- 8- Financial Aid

Learning Resources Center

- 1- Services to the Public
- 2- Audio-Visual Service
- 3- Technical Services

Administrative Affairs

- 1- Purchases
- 2- Accounting
- 3- Property
- 4- Payments
- 5- Budget
- 6- Maintenance
- 7- Personnel
- 8- Security
- 9- Bursar

3.5 Summary of Assets and Limitations

Assets

1. In general, the administration's goals consist of providing the services and conditions most favorable for the attainment of the goals of the Institution, at the minimum cost possible. This signifies that the administration must exploit all available resources to a maximum in order to secure the teaching-learning

situation needed to meet the College's expectations.

In analyzing its performance in this respect, the administration has found that it has the personnel it can rely on for attacking and overcoming difficulties of an administrative nature. As in the case of the faculty, members constituting the administration are young but experienced, as well as mature, competent and dedicated. Indeed, taking care of the College's enrollment and the public which invades the administration offices every day has been achieved only by the problem-solving ability, personal sacrifices and even sense of humor of the administration. Financial difficulties have, in addition, been eased as much as circumstances have permitted it due to the administration's ability and efforts to stretch the budget.^{1/} The administration thus feels satisfied in that it has done as much as it could have possibly done to exploit and adequately utilize available resources in order to meet as many of its goals as it possibly could.

2. In reviewing its structures, the administration has found that these are adequately divided and that the responsibilities and duties that each involve are clearly defined. There is both formal and informal communication between administrative units and the willingness to be of help to each other is always present. Channels of communication between faculty and administration are also quite open.

^{1/} Please refer to the Chapter on Finances in this Self-Study.

Chairmen of departments, for example, meet with the Associate Dean for Academic Affairs once every two weeks presenting their department's views on different matters to the administration. In addition to this, the administration has an open door policy which allows for a direct exchange of ideas between faculty and administration as well as between students and administration.

3. The administration is not completely satisfied, however, with its achievements in the area of faculty research and innovation. It feels that much more needs to be done. At the same time, notwithstanding, it acknowledges that it has strived to help in this field. It has attempted to stimulate and finance seminars, in-service training, workshops and lectures for professors and has made some achievements in this, as seen in the Faculty Chapter. It is nevertheless still striving, among other things, to secure more funds in order to grant more study leaves, finance more workshops, etc. and thus continue to foster faculty innovation and growth. In addition, the administration makes a point of being aware of the innovations, research and excellence of professors. It rewards values found in personnel as immediately as it becomes aware of these, thus paying just tribute to those who have so earned it. The Dean and Director usually issues a written statement for the occasion and department chairmen have also been encouraged to do the same.

4. Another asset of the administration is the Statistics

Officer which it now has. The administration believes that this Officer is the beginning of an Institutional Research Office which would, through its analysis of data, lend valuable aid in evaluating different aspects of the College's file.

5. The administration also expects to implement a rotating system for administrative positions which do not require specialized technical preparation. This system would be implemented as soon as departmental structures are sufficiently settled and members have explicitly demonstrated that they possess the maturity required for the success of the system.

6. As far as coordination with the University of Puerto Rico System, the administration finds that it is quite autonomous in terms of administrative decisions. The only limitation set upon its administrative operation is the financial one. Once funds have been assigned to the College, the administration is quite free to make decisions on the use of those funds in the manner it considers most appropriate.

Limitations

1. Most of the administration's limitations result from a lack of sufficient financial resources. It is due to financial difficulties that among other things: there is a personnel shortage, the facilities available in terms of offices and space are certainly not the best and

enrichment activities are less than those normally advisable.

In detail, during 1971-72 most services were able to be covered because of the efforts of all administrative employees then. This task was made impossible for 1972-73, however, as the work volume and impact of the more than doubled enrollment was much greater and various vital positions were not covered. The total amount of administrative personnel was 78. Some of the positions which were left vacant and consequently affected services were: machine operators, secretaries, key punch operators, office clerks, etc. During 1973-74, administrative work began to normalize itself with the addition of thirteen (13) functionaries who began to perform essential work previously slighted for lack of personnel. Among these new functionaries were: those working with the budget, statistics and reports; evaluation and admissions officers, and clerical functionaries. This does not mean, however, that administrative services were complete. The total for 1974-75 is 109. This total obviously shows an increase in personnel. The increase has not been significant, however. There was and still is a lack of personnel to cover services which are otherwise not taken care of or delayed. As a temporary solution, specialized functionaries find it necessary to dedicate part of their time to clerical work in the process of fulfilling their responsibilities. This implies that the available human resources are not being as adequately used as they could be used and that the amount of

time that this personnel must spend in work of a clerical nature is being taken away from important work which should and would otherwise have priority.

2. Services have also been affected by the problem of agglomeration which has limited adequate development of office organization. Office distribution has been decentralized, consequently presenting a slight difficulty of control. The offices that the administration is using were originally destined for professors. This has been a temporary measure aimed at alleviating the problem of lack of space.

3. Administration enrichment as a result of lack of funds has been minimal. It is hoped that seminars for the professional improvement of administrative personnel will again be offered as soon as financial difficulties end. One observation made in relation to the financial problem, is that said financial limitations force the College to be more dependent. The administration believes that functionaries of the Administration of Regional Colleges should not search for additional means by which to exert more financial controls. The operational autonomy of the College is negatively affected by these controls. It is recommended that there be no further development of the System in terms of addition of more units at the expense of the financial limitations of other units. In addition, the College finds that a good revision of the comprehensive institutional plan for all regional colleges

with direct faculty and administration participation and which would establish a more specific developmental policy of each unit and define their relationships, is needed.

4. In addition, the administration feels that there is perhaps some lack of clearly defined jurisdictional responsibilities between functionaries of the College and those at the Administration of Regional Colleges' level. There is the problem, for example, of whether the Bayamón Regional College Associate Dean for Academic Affairs works directly under the Dean and Director of the Bayamón Regional College or whether he should directly answer to the Dean of Academic Affairs at the Administration of Regional Colleges' level. There is perhaps, a conflict of authority in this situation. The same can be said of the Associate Dean for Administrative Affairs here and the Dean of Administrative Affairs at the Administration of Regional Colleges' level. The order of priority has not been clearly defined and the Bayamón Regional College's Administration has a few doubts in this area which must be clarified.

The administration does sincerely believe, however, that it has met the challenge that the College's problems and limitations have presented, in as successful a manner as has been made possible.

Chapter IV. STUDENTS

The Student Services Office has as its primary responsibility, that of providing, directing, and coordinating those resources and services which make the admission, adaptation, progress and academic success of students who enter our College possible. In order to achieve its goals, this office has the following divisions: the Office of the Associate Dean for Student Affairs, Admissions, the Registrar, Orientation and Counseling, Financial Aid, Placement Service, Social and Cultural Activities, and Athletic Activities. Each of these offices has a director who is under the supervision of the Associate Dean for Student Affairs.

The Student Services Office is temporarily located in one of the two buildings that the administration personnel occupies. It can be stated that all services are being offered, notwithstanding the fact that the size of the building is not the most adequate.

4.1 Admission Procedures

The Admissions Office is responsible for providing and promoting information concerning the entrance requirements and the academic offerings at the Bayamón Regional College. Its objectives are the following:

1. To carry out the processing and evaluation of candidates for entrance to the College and to meet the academic regulations in effect concerning said processing and evaluation.
2. To work with other institutions of higher education in responding to the demand of applicants for admission to the College.

3. To provide the means of selection which guarantee the admission of those candidates best suited for each academic program.

In order to be admitted to the College, high school graduates must meet the following requirements:

1. They must have a high school diploma or its equivalent.
2. They must have a general grade point average of 2.00 or higher.
3. They must take the College Entrance Examination Board Aptitude and Achievement Tests.
4. They must file application forms for admission on or before the date stipulated by the College.
5. They must submit themselves to evaluation by the Admissions Committee.

Applicants from other University of Puerto Rico Units must, on the other hand:

1. Have the minimum grade point average required to remain in good standing.
2. Meet the requirements mentioned in items four and five above.

Students who have voluntarily interrupted their studies at the Bayamón Regional College must:

1. Remain out of the College for one semester.
2. Meet requirements of items one and two of the section on applicants from other University of Puerto Rico Units.

Students from private institutions must have completed twenty-four credits with a minimum grade point average of 2.50 or thirty credits with a minimum grade point average of 2.30, to qualify for transfer to the College.

As mentioned earlier, students must submit themselves to evaluation by the College's Admissions Committee. The latter is responsible for the final evaluation and selection of students, recommended by each department chairman. It is composed of:

1. the Dean and Director of the College - Member (Ex-Officio)
2. the Associate Dean for Academic Affairs - Member (Ex-Officio)
3. the Associate Dean for Student Affairs - Member (Ex-Officio)
4. the Director of the Admissions Office - President
5. the Department Chairman
6. two faculty representatives
7. two student representatives

The Bayamón Regional College accepts applications for admission to technical and transfer programs, by students from the municipalities of: Bayamón, Cataño, Corozal, Comerío, Dorado, Guaynabo, Naranjito, Orocovis, Toa Alta, Toa Baja, and Vega Alta. Applicants from other areas are also accepted in the technical programs.

The College's demand has been quite high throughout the years. In the academic year of 1971-72, for example, the College received 3,352 applications for admission and admitted 1,493 students leaving 1,859 students out. In 1972-73, of 4,304 applications received 1,983 students were admitted with 2,321 students left out. In 1973-74, 5,280 applications were received, 2,376 accepted and 2,904 left out. For this academic year of 1974-75, 3,791 applicants were not accepted.

Six thousand one hundred and seventy three students filed applications for admissions and 2,382 were initially accepted. This last figure increased total enrollment to around 2,839 students. The College has not been able to accept a larger number of students due to the lack of the required financial resources.

4.2 Some Characteristics of the Student Body

The Bayamón Regional College student body is composed mainly of students of both sexes, with ages fluctuating between 18 and 21 years.

The greatest proportion of them resides in the 11 municipalities that form the Bayamón Regional College region. An exception to this is the engineering transfer program, that accepts students from other parts of the Island outside the Bayamón Regional College region and some technical programs for which admissions are not limited to students residing in the said region. Out of the 11 municipalities in this region, Bayamón ranges first in admissions, followed by Guaynabo.

Enrollment distributions for the years 1971-72 to 1973-74 depict an almost balanced share in enrollment by sex. The proportion of women and men students during these periods were: 46% and 54% in 1971-72, 51% and 49% in 1972-73, 48% and 52% in 1973-74.

Around 63% of total student enrollment for the present semester, comes for low-income families as inferred from the number of economic aid grants approved by the Bayamón Regional College Financial Aid Office.

4.3 Services and Resources Available to Students

The Registrar

The primary objective of this office is to keep all students' academic records up to date. In addition, it: organizes and carries out pre-registration and registration for each semester and summer session; prepares the College's academic calendar and its final examination schedule; records students' final grades in the official files; evaluates candidates for graduation and certifies all degrees granted; issues transcripts; processes students' reclassification or change in program; and processes the actual transfer of our students to other University of Puerto Rico Campuses or Regional Colleges.

Orientation and Counseling Services

It is a fundamental objective of the Orientation and Counseling Program to facilitate students' adaptation to the demands of college life. Its general objectives can be summarized as follows:

1. To help the student achieve adequate academic and personal adjustment to college life-style.
2. To aid the student in getting to know and to understand himself in such a way that he may develop realistic and adequate vocational goals which will provide him with success and personal satisfaction.

Services offered by the Orientation Office include the following:

1. Information
2. A study of the individual

3. Academic orientation
4. Vocational and occupational guidance
5. Personal guidance
6. Psychometric evaluations
7. Referral
8. Follow-up activities
9. Research

Orientation and counseling services are also very popular among students. During a six-month period in the academic year of 1971-72, fifty per cent of the College's total enrollment received services from the Orientation Office. Throughout the following academic year (1972-73), 2,900 students received these services and a total of 312 psychometric tests were administered (Kuder Preference Schedule, Personality Test, Raven Progressive Matrices and Sentence Completion Test). A total of twenty psychometric evaluations were also carried out. Approximately 1,751 students also visited the Orientation Offices during the first semester of 1973-74 academic year. The demand for orientation and counseling in the financial, personal, vocational and/or academic aspects of students' lives is certainly quite evident.

Orientation and counseling services are not limited to the Bayamón Regional College students, however. Counselors also visit a variety of high schools including those within the educational region of the Bayamón Regional College and those outside this region.

Financial Aid

This office attempts to offer alternatives in financial aid to all students who need said service. In order to meet this goal, it performs the following duties:

1. Coordinates existing financial resources.
2. Determines applicants' eligibility and makes the financial assignments appropriate for each case, based on the regulations of the program.
3. Keeps a file of the records of all applicants and recipients of financial aid.
4. Keeps a register of all student housing facilities.
5. Carries out follow-up studies on the status of students who receive financial aid.

Tables 4.1 to 4.3 give an idea of the financial aid given throughout the years of the College's existence.

Social and Cultural Activities

The Social and Cultural Activities Program strives to serve as the effective instrument with which to complement students' academic formation by attempting to enrich students' social, cultural, and civic heritage. It performs the following duties in order to attain the objectives mentioned:

1. It plans and develops a program of social and cultural activities.
2. It promotes and sponsors the founding and operation of student organizations.
3. It promotes and coordinates the activities of the College which are of a social, cultural, and civic nature.

Table 4.1

Number of Students the Financial Aid Office
has Served Since 1971

| Source of Funds | 1971-72 | 1972-73 | 1973-74 | 1974-75* |
|--------------------------|------------------------------|------------------------------|------------------------------|----------|
| Honor Scholarships | 8 | 83 | Information not available | 52 |
| Federal Scholarships | Information not available | Information not available | 385 | 223 |
| Legislative Scholarships | 196 | 544 | 470 | 294 |
| Basic Scholarships | - | - | 164 | 687 |
| Work and Study | 38 | 131 | 245 | 122 |
| Federal Loans | Information not available | 17 | 9 | -- |
| Bank Loans | Information not available | Information not available | 2 | 60 |
| Private Scholarships | Information not available | 2 | 45 | 29 |
| Totals | 242 | 777 | 1320 | 1467 |

*Preliminary figures.

Table 4.2

Number of Students the Financial Aid Office
has Served Since 1971 (% of Total)

| Source of Funds | 1971 [%] -72 | 1972 [%] -73 | 1973 [%] -74 | 1974 [%] -75* |
|--------------------------|---------------------------|---------------------------|---------------------------|------------------------|
| Honor Scholarships | 3.3 | 11.0 | Information not available | 3.5 |
| Federal Scholarships | Information not available | Information not available | 29.1 | 15.2 |
| Legislative Scholarships | 81.0 | 70.0 | 35.6 | 20.0 |
| Basic Scholarships | - | - | 12.4 | 46.8 |
| Work and Study | 15.7 | 16.8 | 18.5 | 8.4 |
| Federal Loans | Information not available | 2.0 | 0.7 | -- |
| Bank Loans | Information not available | Information not available | 0.2 | 4.1 |
| Private Scholarships | Information not available | 0.2 | 3.5 | 2.0 |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 |

*Preliminary figures.

Table 4.3

Student Aid Funds Used by Program

| Source of Funds | 1971-72 | 1972-73 | 1973-74 | 1974-75* |
|--------------------------|-------------|--------------|----------------------|--------------|
| Federal Scholarships | \$16,099.00 | \$ 27,535.00 | \$ 51,308.00 | \$ 51,308.00 |
| Legislative Scholarships | 58,000.00 | 181,710.00 | 379,916.28 | 325,497.00 |
| Work and Study | 15,450.00 | 48,632.40 | 89,535.95 | 105,000.00 |
| Federal Loans | 5,936.59 | 10,936.40 | 5,331.84 | -- |
| Bank Loans | - | - | 2,461.87 | In process. |
| Private Scholarships | - | 1,000.00 | (Jervis) 1,000.00 | 12,100.00 |
| Basic Scholarships | - | - | 9,281.00 | 1,172,000.00 |
| Totals | \$95,485.59 | \$269,813.80 | \$538,834.94 | 1,665,905.00 |

*There are still no official allotments for this year.

4.4 Relations with the Bayamón Regional College

When the carrying out an analysis of student relations with the Bayamón Regional College was first considered, it seemed that the most natural thing to do was to address this question to the students themselves. As a consequence, our Student Body Committee for Reaccreditation, composed solely of students, set about preparing a questionnaire and holding public hearings as means to ascertain students' views in relation to the Bayamón Regional College's Administration and Faculty, other students, and the College in general.

A questionnaire was prepared. It consisted of nineteen multiple-choice questions, each containing spaces for comments. The questionnaire was then filled out by students who had been at the College for at least one year, at a class day and hour randomly chosen. Second-year students were chosen for purposes of ensuring students' acquaintance with the College. The committee nevertheless suggested that this study also be carried out at a later date so as to include students who were first year students at the time and thus unable to fill out the questionnaire for lack of sufficient familiarity and experience with the Institution.

Three hundred and thirty seven questionnaires were tabulated for the purposes of the report submitted by the Student Body Committee. In general, students answered all the questions and a number of them included additional comments directly or indirectly related to the

questions answered. Students' answers and comments revealed the following:

In relation to the faculty, the majority of the students feel that the College has a good team of professors. Out of the 331 students who answered the question related to this, 203 considered professors as good, 127 considered them average and only one considered them inadequate. In terms of student-faculty relations, out of 336 students, 252 thought that they were good, 75 considered them very good and only 9 thought they were bad. In the area of the quality of teaching, 264 of 335 students thought they were obtaining a good education, 44 did not think so and 27 said they considered themselves unable to answer. Students were also asked if they thought that the quality of teaching at the Bayamón Regional College was up to par with that of other University of Puerto Rico Regional Colleges and University of Puerto Rico campuses. Three hundred twenty-five answered this question. Two hundred seventy-nine thought it was and 46 differed. The lack of financial resources and some physical facilities was one of the reasons mentioned to explain the negative answers.

Student-administration relations were also considered good. Two hundred forty-nine considered them good and very good, and 74 considered them bad. Students' preoccupation with offices offering services to students nevertheless became evident. The incompleteness of the College's physical plant in general, and the coffee shop and its

services in particular, were among those limitations causing student discomfort which were most strongly mentioned. The Health Services and Orientation Offices, furthermore, need to prepare themselves to take care of more students, according to student opinion. The services of the offices in charge of cultural activities and those of the Learning Resources Center are also financially limited in students' eyes.

Asked if they were proud to be "cowboys" - nickname for students of the Bayamón Regional College - students' affirmative answers were overwhelming. The majority of them expressed that they felt great affection for the College. These were, in general, students' opinions as seen through answers to the questionnaires.

The public hearings mentioned earlier, on the other hand, had disappointing results. Not a single student or group appeared to express his or their views and this was attributed by the Student Body Committee to the apathy of students rather than to lack of propaganda. The Student Body Committee expressed concern about this and mentioned that this points to the need to search for other means by which to promote more and better student interest in the College's decision processes and in its activities.

The assets and limitations of the Bayamón Regional College according to students' viewpoints are then summarized as follows:

1. The majority of students are proud to belong to the College and are satisfied with the quality of teaching that they receive.

2. Most students consider that student-faculty and student-administration relations are good.
3. The two above-mentioned situations provide the healthy, adequate and necessary atmosphere for the success of students in the institution and for the success of the Bayamón Regional College in general.
4. Students wish to have student services improved and hope that the College will overcome financial limitations so that it may provide more and better services to its student body.
5. It is necessary to analyze the reasons behind lack of student interest in participation processes.

4.5 Follow-up Studies

The topic of research on the Bayamón Regional College's graduates has been among those considered most interesting ever since the College began undergoing its process of formal self-evaluation. The Committee on Follow-Up Studies has found, for its own part, that the task has indeed been interesting and at the same time challenging. The very nature and the results of the study have provided the interest. The process of obtaining those results has provided the challenge. The committee, as is to be expected, had to go about:

1. Looking up the names of graduates and their addresses.
2. Writing up and sending out questionnaires to graduates.
3. Waiting for the questionnaires to be sent in.
4. Tabulating and analyzing questionnaire data.
5. Attempting to locate graduates through means other than the mail (i. e. phone calls, etc.).

6. Applying for, collecting, and analyzing data from the institutions that graduates have transferred to or from their employers.

It therefore becomes evident that these activities were certainly no easy task but that they nevertheless yielded results worthy of notice. It is convenient to note at this time that the College has had only two graduating classes: those of 1973 and 1974. Nevertheless, transferees' performance in senior campuses or alumni in the area of employment would give an indication of the College's success in preparing them to adequately meet the challenges they have been confronted with in both fields. What were the College's findings? The data obtained and the conclusions arrived at, follow.

The data has been divided into two parts: That pertaining to graduates who were in technical programs while studying at the College, and that pertaining to graduates enrolled in transfer programs while studying at the College. The technical and transfer programs are the two major divisions of studies here. This explains the division of data. Tables included in this chapter, summarize some of the most important data resulting from the follow-up studies of the two graduating classes according to these programs.

Graduates from Technical Programs

A glance at Table 4.3 on a partial count of technical students, reveals that the percentage of students who actually graduate in the prescribed time period of two years, has been low. An explanation

for this is based on the fact that the number of credits required for graduation in the technical programs has been considerably high. Some programs require that students complete more than 72 credits for graduation. The Academic Senate, after studying the situation, has recommended that the requirements set for technical programs be reduced

Table 4.4

Technical Students Admitted to the Bayamón Regional College:
Complete Withdrawals, Suspensions for Academic Deficiency,
Graduates, and Students Who Stay On at the College.*

Technical Students*

| Academic Year | Students Admitted | SEX | | Complete Withdrawals (At end of first year) | Suspensions for Deficiency (At end of first year) | Graduates | Students Who Stayed On (more than 2 years) |
|---------------|-------------------|---------|---------|--|--|-----------------------|---|
| | | M | F | | | | |
| 1971 | 266 | 186-70% | 80-30% | 37-14% | 14-5% | (In 1973) 54-20% | 31-12% |
| 1972 | 453 | 267-59% | 186-41% | 67-14% | 24-5% | (In 1974) 78-17% | 21-5% |
| 1973 | 639 | 353-55% | 286-45% | 28-4% | 120-19% | Will graduate in 1975 | -- |

*Based on a partial count of the complete universe.

and has specifically recommended that they fall within the range of 62 to 68 credits. This measure should undoubtedly increase the number of technical students to graduate in the prescribed time, in future years.

The number of students in the partial count, who have withdrawn completely, on the other hand, has been relatively low for all three years: a steady 14% for 1971 and 1972 and a lower 4% in 1973.

Suspensions for academic deficiency have also remained low with the exception of those for the year 1973.

Information and opinions were also requested of students through questionnaires sent by mail. These questionnaires were sent to graduates in the year 1973 only, as they are the only ones with reasonably sufficient time out of the College. Information and opinions will be requested of graduates of following years, as soon as enough time has gone by to validate an analysis.

A study of the questionnaire situation of technical students, on the other hand, revealed that the 54 graduates of the technical programs constituted 35% of all graduates that year. Furthermore, 28 or 52% of those 54 graduates filled out the questionnaire. Twenty of them are employed, which indicates that at least 71% of those answering are employed. All of the students employed, have a full-time job and the majority of them are working with private firms. Those graduates employed hold the positions of surveyors, receptionists, clearance clerks, cashiers, accountants, laboratory technicians, dietitians, systems programmers, electronics technicians, etc.

The monthly salaries of graduates fall into the \$300 to \$600 or more range, with 93% of the students that informed their salaries, earning more than \$300 a month.

When asked about the relationship between their academic preparation and the positions they hold at present, the majority considered that there was a complete or at least some relationship, between

their preparation and their jobs. When asked about plans for the future, the majority of those students who answered the questionnaire, said they planned to continue studying on either a part time or a full time basis.

Students answering the questionnaires also included their own specific comments in them. The most salient of these, expressed strong recommendations that more practical work be given to students, be it through laboratory or regular classroom tasks. Students also voiced, on the other hand, the need for the general public to become more aware of what associate degrees are. The Administration of Regional Colleges, completely aware of this situation, has placed advertisements on television and has repeatedly voiced through its Chancellor, Dr. Herman Sulsona, Puerto Rico's needs for short career programs leading to associate degrees. The effort to educate the public is, thus, certainly being made.

Graduates from Transfer Programs

Upon looking at Table 4.4 one finds that, contrary to the technical students, the number of graduates for 1973 was relatively high, representing a 47% of the students admitted to transfer programs in 1971. In order to receive their associate degrees in arts or sciences, students in the transfer programs must complete a minimum of 60 credits, eighteen of these within their potential field of specialization. They must also file an application for the degree, as it is not automatically given upon completion of said number of credits.

Table 4.4 a

Transfer Students Admitted to the Bayamón Regional College:
Complete Withdrawals, Suspensions for Academic Deficiency,
Graduates, and Students Who Stay On at the College*

Transfer Students*

| Academic Year | Students Admitted | SEX | | Complete Withdrawals (At end of first year) | Suspensions for Deficiency (At end of first year) | Graduates | Students Who Stayed On (more than 2 years) |
|---------------|-------------------|---------|---------|--|--|-----------------------|---|
| | | M | F | | | | |
| 1971 | 214 | 69-32% | 145-68% | 3-2% | 28-13% | (In 1973) 101-47% | 13-6% |
| 1972 | 604 | 288-4% | 316-52% | 33-6% | 14-2% | (In 1974) 78-13% | 80-13% |
| 1973 | 565 | 250-44% | 315-56% | 14-3% | 64-11% | Will graduate in 1975 | -- |

*Based on a partial count of the universe.

In 1974, however, the number of graduates was much lower. Since the minimum number of credits to transfer (subject to available vacancies in main campuses) is 48, much lower than the requirements for the associate degree, it is possible that many students less desirous of obtaining the associate degree than of obtaining the bachelor's degree, began processing their transfer application forms upon completing the 48 credits and did not wait to complete the 60 credits for the associate degree as did the graduates of the previous years.

The number of students who have withdrawn completely has been low, as can be observed; much lower than that of technical students. On the other hand, there was an increase in the number of transfer

students suspended for academic deficiency in 1973, as was also the case of technical students that year. The increase in the former, needs further in-depth analysis, but one can venture to state that it was probably, among other things, the result of a low-average student-lag from previous years.

There is a group of transfer students who have stayed on at the College. The reasons for this situation are varied. The most salient one is that transfer students do not want to leave the College. Many students have stated reasons such as transportation problems, an increase in expenses when they are forced to take a temporary residence near the institution to which they wish to transfer, etc., but above all they state their fear of what they consider the cold and impersonal atmosphere of larger institutions.

A look at the academic adjustment of transfer students, indicates that a high percentage (92%) of those admitted in 1971, transferred to the University of Puerto Rico-Río Piedras Campus and that approximately 79% of these completed their year of studies (1973-74) there. The total number of credits that these students completed fluctuate between 26 and 31 with an average of 28, which is higher than the minimum requirement of 24 credits for regular students. Grade point averages fluctuate between 1.70-"C" and 3.22-"B". The average grade point average is 2.62-"B". This indicates then, that transfer students are performing academic work at an above-average level in the senior

campus. Sixty-eight percent of the transfer students who answered the questionnaire have continued studying, 26% are working and studying and 6% have other plans such as marriage, traveling, etc.

The comments that students answering the questionnaire made on their own, revolved around their recommendation that more orientation be given as to the courses that they would be required to take at other institutions in order to obtain their bachelor's degree.

Conclusions

It is important to mention at this point, that the explanations included and the conclusions reached in the area of follow-up studies, must be viewed as mere indications of how graduates of the Bayamón Regional College are doing in the employment market and in the field of studies today. The College has had only two graduating classes and these have been so recent that it is, perhaps, slightly premature to reach conclusions on their performance when they've had so little time outside the Institution. Furthermore, more attempts will have to be made to reach more graduates in order to obtain their opinions and additional information about their status.

Nevertheless, there is an indication that the Bayamón Regional College graduates who answered the questionnaires seemed to be doing relatively well and that the majority of them seem to believe that their academic preparation has helped them. Those graduates of technical programs which are employed are receiving good salaries and seem to

be satisfied with their positions. Few of the graduates on the transfer programs are employed, as should be expected. The majority of them, however, are carrying out good academic work at the institutions to which they have transferred. There thus seems to be the indication that the College has been preparing its students well, although some improvements should be made in several of its programs. The College will have a more complete picture of its performance in reaching and adequately preparing students for the different fields of employment and/or study, when additional studies related to its graduates are carried out. As more of its classes graduate and more time goes by, there will be a better opportunity to carry out further analyses and the conclusions arrived at, will have a more solid basis.

4.6 Summary of Assets and Limitations

Among others, the study disclosed these assets and limitations.

Assets:

1. The meritorious efforts of the Student Services personnel that, in spite of the marked limitations in resources, strive to render quality services to our students and succeed.
2. The considerable amount of financial aid funds available that make it feasible to a large proportion of students to continue studying.
3. The relative success of alumni in industry and commerce notwithstanding the short period of time since they graduated from the College.

4. The achievements of transferees in senior campuses, which show that they have attained an academic progress, that compares adequately with regular main-campus students.

Limitations:

1. The lack of adequate physical, financial and human resources which prevent the betterment of the services rendered to students.
2. The delay observed in technical students that take longer to graduate than the expected two-year period.
3. The hesitance exhibited by some students that try, by all possible means, to stay on in the College instead of transferring to a senior campus upon qualifying to do so.

Chapter V. THE CURRICULA

In studying the curricula, the University of Puerto Rico, Bayamón Regional College has analyzed each main curriculum from the standpoint of the curricular objectives. This includes: their appropriateness, the consistency of the required curricular activities with these objectives, the adequacy of the available curricular resources, their stability and whatever evidence is available of the successful achievement of curricular objectives, both in general and as applied to each of the two main curricular areas. These comprise: the technical, career oriented programs, leading to an associate degree conferred at the College and the transfer programs, leading to a bachelor's degree, conferred at a four-year campus.

5.1 General Philosophy and Objectives

A carefully planned curriculum is of a paramount importance to an educational institution. Its design should pursue the achievement of institutional objectives and at the same time satisfy the needs of students and the requirements of society as a whole.

The forementioned statements serve as the basis for curricular activities in the University of Puerto Rico, Bayamón Regional College.

To this end, the college curricula has, in general, the following objectives:

1. To serve as basis for the development in the student of an intellectually critical mind that searches for universal truths through the proper use of the scientific method and

who is aware of his responsibilities towards society as a whole.

2. To provide a basis for the adequate preparation of personnel to serve the community, thus collaborating in satisfying the demands of Puerto Rico's socio-economic development.

The curricula also have four specific objectives which are presented in succeeding sections 5.4.1, 5.5.1 and 5.6.

Considering the shift experienced in previous decades that changed Puerto Rico's economy from one predominantly agricultural to an industrialized country, plus the natural thirst for scientific and cultural enrichment of a developing nation, the Bayamón Regional College curricular objectives are deemed adequate for our Island as a whole and for the particular region served by this college.

5.2 Modes of Instruction

The instruction activities carried out in the Bayamón Regional College are generally consistent with curricular objectives. Thus instruction is given in the science and liberal arts fields via the transfer program curriculum. The complex of transfer-program instruction activities, are performed keeping track of general curricular objective 1 mentioned above. Similarly the activities conducted in the technical career-oriented programs, seeks to suit the requirements of general curricular objective 2 stated above. As such, the curriculum include programs in those paraprofessional and technological fields which, in the Island, have shown to be highly demanding in terms of adequately prepared personnel. However, the College is aware of the fact that these personnel demands, as well as

their preparation, are subject to fluctuations and has provided means of effecting modifications in its curriculum to accomodate for changes. To this end, a committee has been appointed to deal with curriculum changes and evaluation at the local college level. It is a standing (permanent) committee called the "curriculum committee" and is composed of four faculty members and two students. The Associate Dean for Academic Affairs is also an ex-officio member of this committee. The general curriculum change process starts with recommendations for changes gested at a departmental level. Then the curriculum committee studies the recommendations, which if deemed acceptable, are sent to the Director-Dean, who in turn endorses these to the Dean of Academic Affairs and he forewards them to the Academic Senate for approval.

It is understood that the abilities of entering students should be taken into consideration. Thus, different methods of adapting the curriculum to the needs of individual students should be tested. These should include, among others: diverse instructional approaches, different course formats, varied testing methods and the use of remedial courses. In considering the abilities of entering students, the college firmly believes that acquired knowledge should be granted credit, once successfully validated via testing procedures, irrespective of where it was acquired. Although the "credit by examination" option is still pending final approval by the Academic Senate, pilot tests have been carried on successfully in this college for entering students in the Secretarial Sciences and Civil Technology technical areas and in ascertaining whether

a student should be requested to go through laboratory practice in some English courses.

Although some economic limitations preclude the use of some modern instructional approaches at the present time in our institution, some other modes are being tested to complement the traditional expository lecture/recitation mode, or to completely substitute it, where advisable. Among others, the following alternate methods of instruction are being considered: autotutorial laboratories in English, Secretarial Sciences, Computer Science and Biology; instructional modules in English, Secretarial Sciences, Computer Science and Biology; group study in Mathematics and Engineering; independent studies in Mechanical Technology and Humanities; credit by examination in Civil Technology, Secretarial Sciences and English; laboratory tutoring by laboratory assistants in English, and computer-aided instruction in Computer Science.

In order to ascertain the degree of achievement attained by students prior to entering college, diagnostic tests are also administered in some departments. These are given in addition to the regular aptitude and achievement tests given by the College Entrance Examination Board and taken by all students requesting admission to the college. As such, diagnostic tests are administered in Secretarial Sciences, Pedagogy, Computer Science, Mathematics and Engineering. On the basis of these tests, students could be placed in remedial courses, regular courses or advanced level courses.

5.3 Achievement of Curricular Objectives

It is felt that, on the average, it is possible to achieve the stated curricular objectives, based on the present programs and activities. However there are certain limitations in economic, human and physical resources that impose some limitations to the thorough achievement of the stated curricular objectives. There are also other limitations implicit in some technical programs layout, in the need for a stronger cooperative effort with some government agencies and some private industrial sectors, and in the student-transfer articulation process with some main university campuses. These issues and limitations are discussed in detail in succeeding topics of this chapter and other chapters of this self-study document.

In spite of the forementioned limiting issues, the evidence obtained by examining outcomes, such as: grade distributions, attrition studies, achievement of alumni, performance of transferees, graduates views on the strength and weaknesses of their preparation, the feedback from employers, tests and the review of student projects, show that curricular objectives are, on the average, being achieved.

5.4 Technical Career Programs

To correlate with Puerto Rico's economic and industrial development, the college offers diverse technical, career-oriented programs, leading to an associate degree in the following fields:

1. Civil Construction and Structural Design
2. Land Surveying and Highway Design
3. Production Technology
4. Dietetics
5. Electronics
6. Industrial Instrumentation

7. Computer Science
8. Industrial Management
9. Business Administration-Accounting
10. Business Administration-Management
11. Elementary Education
12. Secretarial Sciences

5.4.1 Specific Objectives

Although the field of application varies from one program to another, they all share the following specific curricular objectives:

"Technical career-oriented curricula have been designed for the development and subsequent offering of semi-professional and technical instruction in fields of high employment potential. In addition to the purely technical courses, the curricula also includes liberal arts courses."

The college's position on the relationship between a broad education and the acquisition of techniques and skills is that:

"The curricula in technical and professional programs should allow the student to acquire skills while keeping flexibility to broaden education."

This is why basic "learning tools" like English, Spanish and Mathematics are required subjects in technical programs.

The above-mentioned technical programs curricula objectives are deemed appropriate to Puerto Rico and the region served by the University of Puerto Rico-Bayamón Regional College. This is so because the great commercial and industrial development of the Island has made the preparation of technical and para-professional personnel, a must. As such, land surveyors and structural designers are needed for the construction industry. Tool and die designers are required to suit the needs of manufacturing concerns. Dietetics technicians are a must in hospitals, to aid in the ever increasing need for specialized

meal processing and diet design in the health care and nutrition areas. Electronic technicians are needed in those industrial establishments which are highly dependent on automated electronic equipment or manufacture electronic parts and appliances. Instrumentation technicians are required in petroleum-refineries. Computer programmers and system designers are needed in commercial and industrial concerns which are converting to automated information-handling systems. Industrial middle management and supervisory personnel, as well as accounting technicians, business-management officers and secretarial personnel are required in industrial and commercial establishments. One possible exception to the adequacy of the said objectives is the Elementary Education case. Due, mainly to the fact that, several other educational institutions in the area are also preparing personnel in this field, there is a temporary saturation in the employment potential, for graduates of the "general elementary education option". In a response to this situation, the college has assigned to a special committee the task of redesigning the elementary education curriculum to re-orient it towards other areas of higher employment potential, like for example: the mathematics and science option, and the vocational education option.

In spite of the forementioned exception we could say that, in general, the stated objectives are adequate for the region served by the college, the curricular and instruction activities correlate well with these objectives and it is possible, on the average, to achieve them successfully.

5.4.2 Human and Economic Resources

The availability of an acceptable curriculum is not enough to warrant the success of an academic program. The human and economic resources should also be adequate in quantity and quality.

Since its establishment, the college has been under a constant pressure to admit more students each year, due to a relatively astonishing demand for new admissions (for transfer and technical programs as a whole), as compared to the available economic and human resources. Figures 5.1 to 5.3 depict this fact. They show for all University of Puerto Rico Regional Colleges, the proportion between the number of students requesting admissions and those accepted for the academic years 1972-73, 1973-74 and 1974-75 respectively. It could be seen that there is a dramatic disproportion in the Bayamón Regional College case.

In the light of these facts, a teaching staff that could otherwise be adequate in number, become inadequate, as related to the demand for new admissions, unless additional economic resources are provided to enlarge the staff accordingly or unless otherwise, the increasing demand for admissions remains unattended. In such a case, the public responsibility of the institution wouldn't be fully achieved.

Tables 5.1 to 5.3 present a distribution of the number of sections, total number of professors, average number of sections per professor, total number of student-sections, average number of

Figure 5.1

APPLICATIONS AND ADMISSIONS
BY REGIONAL COLLEGE SYSTEM UNIT
FIRST SEMESTER - YEAR 1972-73

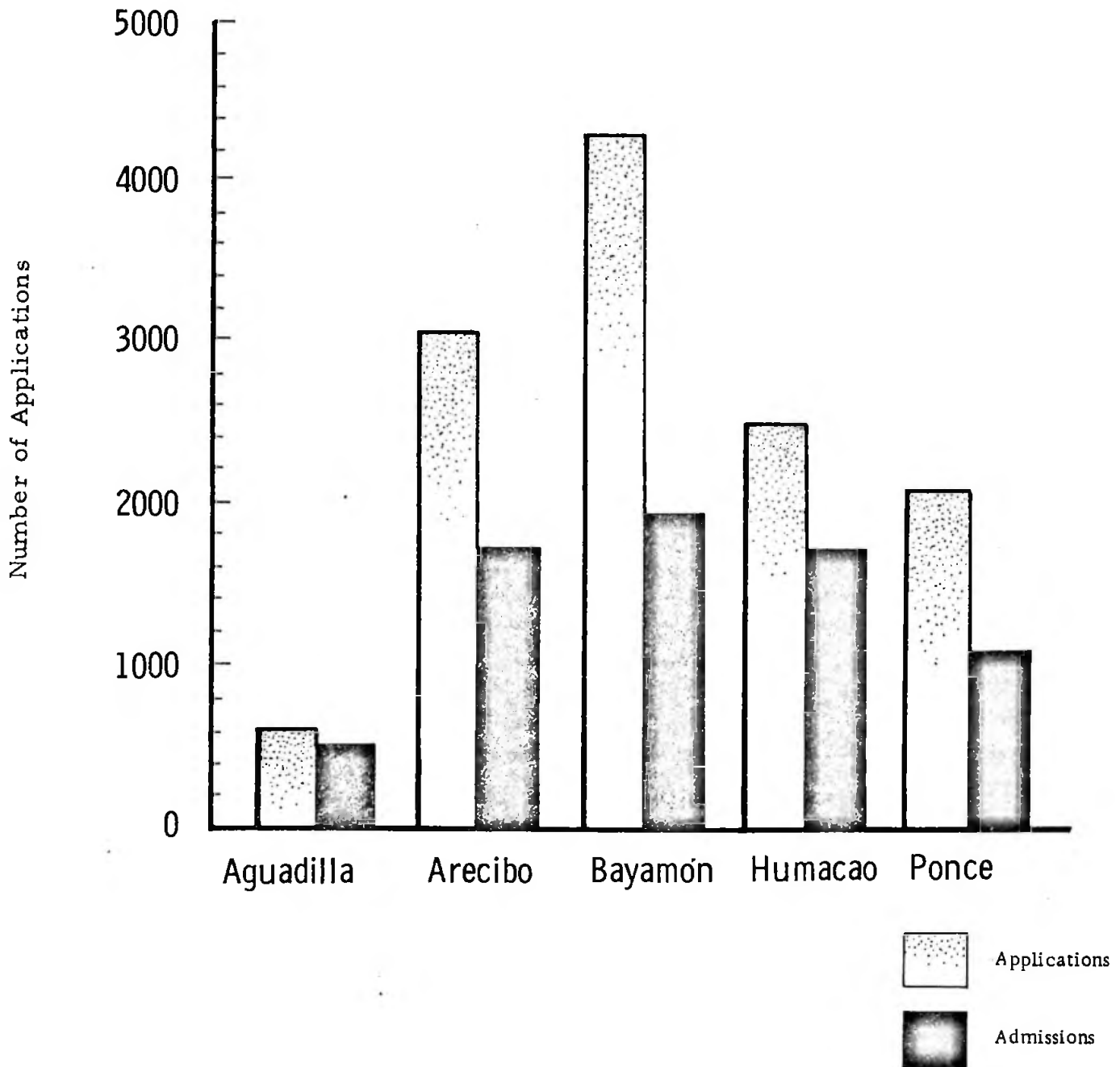
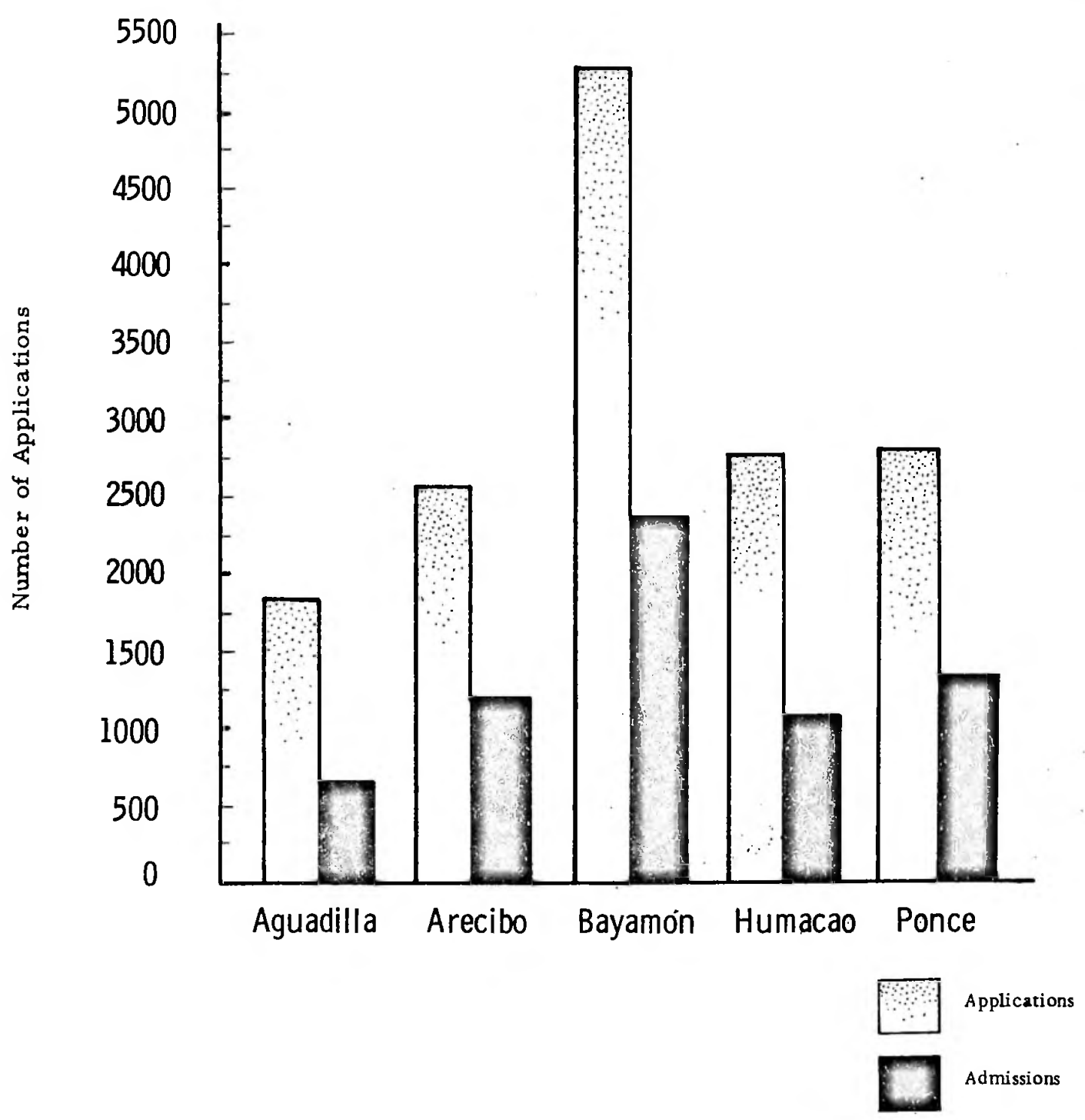
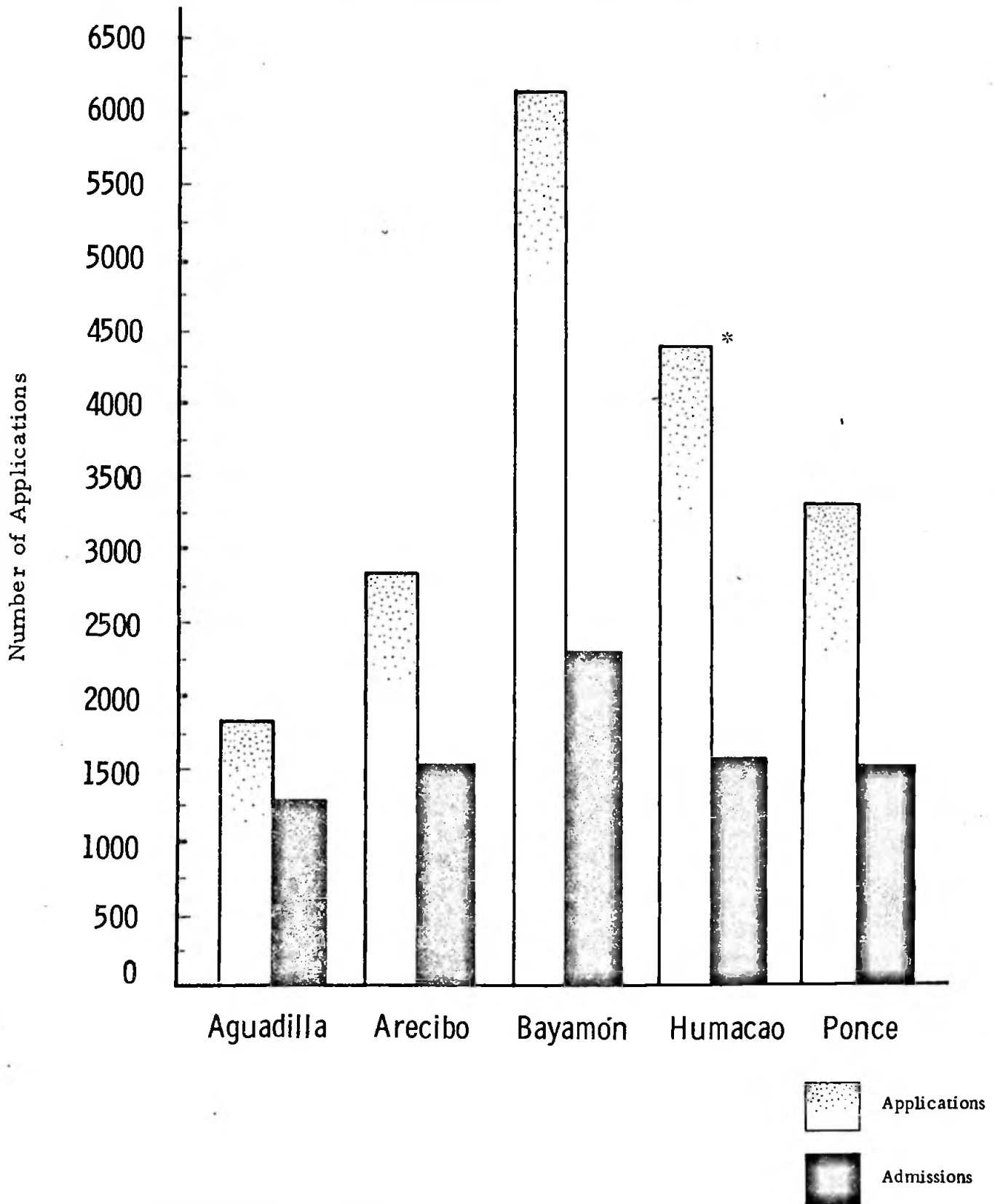


Figure 5.2

APPLICATIONS AND ADMISSIONS
BY REGIONAL COLLEGE SYSTEM UNIT,
FIRST SEMESTER - YEAR 1973-74



APPLICATIONS AND ADMISSIONS
 BY REGIONAL COLLEGE SYSTEM UNIT
 FIRST SEMESTER - YEAR 1974-75



* Humacao is a 4-year college since 1974-75.

Distribution of Enrollment in Relation to Teaching Staff

| Department | 1972-1973 | | | | | |
|--|--------------------|----------------------|--|------------------|----------------------|------------------------|
| | Number of Sections | Number of Professors | Average Number of Sections per Professor | Student-Sections | Students per Section | Students per Professor |
| Total Transfer | 244 | 53 | 5 | 6497 | 27 | 135 |
| <u>Transfer</u> | | | | | | |
| Humanities | 32 | 6 | 5 | 950 | 29 | 145 |
| Natural Sciences | 17 | 6 | 3 | 444 | 26 | 78 |
| Chemistry and Physics | 21 | 5 | 4 | 482 | 22 | 88 |
| Social Sciences | 23 | 5 | 5 | 646 | 28 | 140 |
| Physical Education | 13 | 3 | 4 | 306 | 23 | 92 |
| Spanish | 46 | 9 | 5 | 1257 | 27 | 135 |
| Mathematics and Engineering | 48 | 9 | 5 | 1222 | 25 | 125 |
| English | 44 | 10 | 4 | 1190 | 27 | 108 |
| Total Technical | 87 | 25 | 3 | 1961 | 23 | 69 |
| <u>Technical</u> | | | | | | |
| Dietetics | 6 | 2 | 3 | 129 | 21 | 63 |
| Industrial Management | 9 | 2 | 5 | 114 | 12 | 60 |
| Civil Construction Technology | 16 | 5 | 3 | 380 | 23 | 69 |
| Electronics/Instrumentation Technology | 6 | 3 | 2 | 84 | 14 | 28 |
| Technology of Production | 1 | 2 | 5 | 60 | 60 | 30 |
| Computer Science Technology | 8 | 3 | 3 | 279 | 34 | 102 |
| Business Administration | 25 | 5 | 5 | 468 | 18 | 90 |
| Secretarial Sciences | 8 | 2 | 4 | 225 | 28 | 112 |
| Elementary Education | 8 | 1 | 8 | 222 | 27 | 216 |
| TOTALS | 331 | 78 | 4 | 8458 | 25 | 100 |

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 Statistics Officer

Distribution of Enrollment in Relation to Teaching Staff

| Department | 1973-1974 | | | | | |
|--|--------------------|----------------------|--|------------------|----------------------|------------------------|
| | Number of Sections | Number of Professors | Average Number of Sections per Professor | Student-Sections | Students per Section | Students per Professor |
| Total Transfer | 323 | 62 | 5 | 8592 | 27 | 135 |
| <u>Transfer</u> | | | | | | |
| Humanities | 37 | 8 | 5 | 1145 | 31 | 155 |
| Natural Sciences | 16 | 7 | 2 | 468 | 29 | 58 |
| Chemistry and Physics | 24 | 5 | 5 | 702 | 29 | 145 |
| Social Sciences | 44 | 6 | 7 | 1093 | 25 | 175 |
| Physical Education | 19 | 4 | 5 | 400 | 21 | 105 |
| Spanish | 53 | 10 | 5 | 1404 | 26 | 130 |
| Mathematics and Engineering | 67 | 10 | 7 | 1704 | 25 | 175 |
| English | 63 | 12 | 5 | 1676 | 27 | 135 |
| Total Technical | 142 | 30 | 5 | 3411 | 24 | 120 |
| <u>Technical</u> | | | | | | |
| Dietetics | 5 | 2 | 3 | 122 | 24 | 72 |
| Industrial Management | 6 | 1 | 6 | 106 | 18 | 108 |
| Civil Construction Technology | 13 | 5 | 3 | 348 | 27 | 81 |
| Electronics/Instrumentation Technology | 18 | 3 | 6 | 247 | 16 | 96 |
| Technology of Production | 5 | 2 | 3 | 80 | 14 | 42 |
| Computer Science Technology | 12 | 3 | 4 | 330 | 28 | 112 |
| Business Administration | 46 | 8 | 8 | 1162 | 25 | 200 |
| Secretarial Sciences | 17 | 3 | 6 | 445 | 26 | 156 |
| Elementary Education | 20 | 3 | 7 | 571 | 29 | 203 |
| TOTALS | 466 | 92 | 5 | 12008 | 25 | 125 |

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 Statistics Officer

Distribution of Enrollment in Relation to Teaching Staff

| Department | 1974-1975 | | | | | |
|--|--------------------|----------------------|--|------------------|----------------------|------------------------|
| | Number of Sections | Number of Professors | Average Number of Sections per Professor | Student-Sections | Students per Section | Students per Professor |
| Total Transfer | 373 | 66 | 6 | 10633 | 29 | 174 |
| <u>Transfer</u> | | | | | | |
| Humanities | 52 | 7 | 7 | 1791 | 42 | 294 |
| Natural Sciences | 34 | 7 | 5 | 984 | 29 | 145 |
| Chemistry and Physics | 50 | 9 | 6 | 1400 | 28 | 168 |
| Social Sciences | 38 | 7 | 5 | 987 | 26 | 130 |
| Physical Education | 21 | 4 | 5 | 388 | 18 | 90 |
| Spanish | 65 | 12 | 5 | 2024 | 31 | 155 |
| Mathematics and Engineering | 49 | 8 | 6 | 1358 | 28 | 168 |
| English | 64 | 12 | 5 | 1701 | 27 | 135 |
| Total Technical | 200 | 36 | 6 | 4626 | 23 | 138 |
| <u>Technical</u> | | | | | | |
| Dietetics | 8 | 2 | 4 | 146 | 18 | 72 |
| Industrial Management | 8 | 1 | 8 | 159 | 20 | 160 |
| Civil Construction Technology | 18 | 4 | 5 | 405 | 23 | 115 |
| Electronics/Instrumentation Technology | 25 | 4 | 6 | 421 | 20 | 120 |
| Technology of Production | 12 | 2 | 6 | 86 | 7 | 42 |
| Computer Science Technology | 12 | 3 | 4 | 316 | 26 | 104 |
| Business Administration | 61 | 9 | 7 | 1717 | 28 | 196 |
| Secretarial Sciences | 32 | 6 | 5 | 759 | 24 | 125 |
| Elementary Education | 24 | 5 | 5 | 617 | 26 | 130 |
| TOTALS | 573 | 102 | 6 | 15259 | 27 | 162 |

Prepared by: Dora D. Martínez de Arroyo
Statistics Officer

students per section and average number of "instances students are related to each professor" (for shortness called "students per professor"), in the preceeding 2 1/2 years. The information is classified by transfer and technical career-oriented programs and their respective departments.

In the technical program areas, it could be seen that the number of students related to each professor, shows an upward trend. Similar trends are observed in the average number of sections per professor and the number of student-sections. However, the average number of students per section remains, more or less, unchanged. From this it could be inferred that the teaching staff has not being enlarged in size proportionately to the consistent growth in size of the student body.

In addition to the forementioned limitation, there is also another limitation in the number of lab assistants and the clerical staff devoted to the technical and also the transfer program areas. At the present time, only the Electronics, Computer Science, Dietetics and English departments have at least one lab assistant assigned and there are only four secretaries who work for both, the transfer and the technical program areas. This makes a proportion of about one secretary for twenty three professors, including department heads.

Thus, in answering the typical self study question that refers to the adequacy of resources, it could be concluded that, unless

more economic resources are assigned to the institution, to hire more instruction personnel, the once generally adequate human resources, could gradually become inadequate.

Besides this limitation in human and economic resources, there are some other limitations in physical resources for some technical program areas. For example, there is a need for more equipment in the Industrial Management, Production Engineering Technology, Dietetics and Civil Technology labs. There is also a limitation in lab space for the Dietetics program area where only one of two already planned labs is pending construction due to a shortage in permanent improvement funds.

5.4.3 Program Loads per Semester

An examination of the diverse technical career-oriented programs reveal that, in general, the number of credit hours required per semester is high as compared to the transfer programs. These range from 16 to 20 credit hours. The total number of credit hours for most technical programs fluctuate from around 64 to 75. This is deemed too high, considering the fact that the subjects covered during the two years of studies in the technical programs are usually more difficult to learn than those covered in the general transfer programs.

A sample study conducted recently among a group of graduates from both technical and transfer programs, reveals that

although the combined sample of students did not have a significant difference in high school grade point averages, those in the technical program obtained lower scores in the College Entrance Examination Board exams, took longer to graduate and graduated with lower grade point indexes, than a corresponding group of transfer program students.

The Academic Senate of the Regional Colleges Administration is aware of the fact that a similar condition exists in all University of Puerto Rico Regional Colleges and has recently recommended that all technical career-oriented programs be revised to lower the total number of credit hours to fluctuate between 62 and 68 credit-hours. In the case of those programs requiring 68 credit-hours, they recommend the administration of 65 credits spread in four semesters and 3 during the summer session, using a non-traditional mode of instruction during this session.

5.4.4 Outcomes

In examining outcomes, both for technical and transfer students, different performance levels were considered, namely:

- 1- The Input Level. At this level, student performance in High School and College Entrance Examination Board exams were analyzed.
- 2- The Process Level. Here student performance while in college was studied.
- 3- The Output Level. Final performance of students upon graduation was analyzed.

- 4- The Feedback Level. Performance of transferees to senior university campuses and graduates in various jobs in industry and commerce, were studied.

Thus, the efforts of the various subcommittees to determine the performance of our students at different levels, could be viewed, collectively, as some sort of an "input-output analysis".

Their efforts were motivated by a sincere desire to examine, to the best of their knowledge and abilities, some "measures of educational effectiveness", among others:

- 1- Grade Point Index Distributions
- 2- Entrance Examination Percentile Distributions
- 3- Grade Distributions
- 4- Student Progress in Credit-Hours Buildup Rate
- 5- Rates of Attrition
- 6- Degrees Awarded
- 7- Performance of Transferees to Senior Campuses
- 8- Performance of Alumni in Industry and Commerce

The results of one of these efforts have already been described in Chapter IV.

Another of these efforts consisted in selecting a random sample of graduates and subjecting it to other outcome analysis not included in the follow-up studies of Chapter IV. The high school grade point averages in the sample show no significant difference between the group of students admitted to the technical program when compared to those admitted to the transfer program. However, there was a highly significant difference between the entrance percentile index of both, with those students in the technical program achieving a significantly lower percentile index.

The combined credit-hours buildup rate for the sample during their first four semesters in college showed an average equivalent to 16.5 credits approved (passing) per semester, with a corresponding grade point index of 2.86. Table 5.4 depicts this buildup in credit hours and indexes up to sixth semester.

In checking the reasons stated by students when dropping out of college, the reason most frequently stated was "illness", followed by "personal and family problems", and "economic difficulties". A large number of students did not specify the reason for dropping out of college. Table 5.7 shows some attrition rate estimates.

An analysis of the overall grade distributions for all enrolled students in the four preceding semesters, shows relatively stable grading patterns in equivalent semesters. However, all such distributions appear to be skewed towards the better grades side. Table 5.5 presents these results in percentages of the total number of grades allotted.

In an effort to ascertain how long it took students from technical and transfer programs to graduate, data from a random sample of graduates was analyzed. Table 5.6 depicts the results of this analysis. Although the combined length of time taken to graduate is around four and a half semesters and one summer session, it is evident that technical career oriented students have taken longer to graduate than transfer program students and have achieved a lower

Table 5.4

Credit-Hours Buildup and Corresponding Grade Point Indexes
(Sample of Graduates)

| Cumulative Semesters | Credit-Hours Buildup | | | Grade-Point Index | | |
|----------------------|----------------------|------|------|-------------------|------|------|
| | Min. | Ave. | Max. | Min. | Ave. | Max. |
| I | 5 | 16 | 20 | 1.23 | 2.73 | 4.00 |
| II | 23 | 31 | 40 | 1.63 | 2.80 | 3.90 |
| III | 38 | 49 | 59 | 1.84 | 2.89 | 3.88 |
| IV | 54 | 66 | 78 | 1.95 | 2.90 | 3.91 |
| V | 71 | 78 | 85 | 2.76 | 2.90 | 3.02 |
| VI | 62 | 82 | 99 | 2.05 | 2.64 | 3.42 |

Table 5.5

Bayamón Regional College
 Percentage Distribution of Grades: First Semester 1973-74 and 1974-75
 Second Semester 1972-73 and 1973-74

| Grades | Second Semester 1972-73 | | First Semester 1973-74 | | Second Semester 1973-74 | | First Semester 1974-75 | | Percent of Change | |
|--------|----------------------------|---------|---------------------------|---------|----------------------------|---------|---------------------------|---------|--------------------------------|--------------------------------|
| | Total | Percent | Total | Percent | Total | Percent | Total | Percent | 1st Sem. 1974-75 1973-74 | 2nd Sem. 1973-74 1972-73 |
| A | 322 | 16 | 1430 | 12 | 1483 | 15 | 1730 | 12 | 21 | 347 |
| B | 616 | 30 | 3103 | 26 | 3025 | 30 | 3756 | 27 | 21 | 391 |
| C | 546 | 26 | 3249 | 28 | 2761 | 28 | 3974 | 29 | 22 | 406 |
| D | 185 | 09 | 886 | 08 | 806 | 08 | 1339 | 10 | 51 | 336 |
| F | 116 | 06 | 1103 | 09 | 574 | 06 | 634 | 05 | -43 | 395 |
| W | 266 | 13 | 1975 | 17 | 1282 | 13 | 2327 | 17 | 18 | 382 |
| Total | 2091 | 100 | 11746 | 100 | 9931 | 100 | 13760 | 100 | 12 | 375 |

Table 5.6

Distribution of Students by Number of Semesters Taken to Graduate

(Universe size: 344; Random sample size: 46)

| Number of students | | Semesters taken to graduate | Summer sessions used | Average Number Credits Accumulated | | Grade Point Index at graduation | |
|--------------------|----------|-----------------------------|----------------------|------------------------------------|----------|---------------------------------|----------|
| Technical | Transfer | | | Technical | Transfer | Technical | Transfer |
| 5 | 3 | 4 | 0 | 73 | 61 | 2.81 | 3.19 |
| 3 | 13 | 4 | 1 | 75 | 69 | 2.56 | 3.09 |
| 3 | 5 | 4 | 2 | 74 | 72 | 2.98 | 3.10 |
| 1 | 1 | 5 | 1 | 73 | 85 | 2.69 | 3.02 |
| 3 | 0 | 6 | 0 | 82 | -- | 2.97 | -- |
| 6 | 1 | 6 | 1 | 87 | 87 | 2.63 | 2.48 |
| 2 | 0 | 6 | 2 | 67 | -- | 2.16 | -- |
| 23 | 23 | 4.56 | 0.97* | 78 | 70 | 2.72 | 3.06 |

* Based on total number of students in sample. The grand mean for the sample grade point index was 2.88 with a minimum of 2.05 and a maximum of 3.81. The number of credits accumulated had a mean of 74 with 60 and 99 as the minimum and maximum, respectively.

RATES OF ATTRITION ESTIMATES
ACADEMIC YEARS 1971-72 TO 1973-74
FIRST SEMESTER ENROLLMENT
TECHNICAL AND TRANSFER PROGRAM STUDENTS

| | First Year 1971-72 | Second Year 1972-73 | Percent Retention | Percent Outflow |
|-----------|-----------------------|------------------------|----------------------|--------------------|
| TECHNICAL | 274 | 190 | 69 | 31 |
| TRANSFER | 214 | 203 | 95 | 05 |
| TOTAL | 488 | 393 | 81 | 19 |

| | First Year 1972-73 | Second Year 1973-74 | Percent Retention | Percent Outflow |
|-----------|-----------------------|------------------------|----------------------|--------------------|
| TECHNICAL | 575 | 480 | 83 | 17 |
| TRANSFER | 726 | 599 | 83 | 17 |
| TOTAL | 1301 | 1079 | 83 | 17 |

grade point index. This difference in index performance correlates well with the corresponding difference in achievement observed in the entrance percentile index.

5.4.5 The Need for a Stronger Cooperative Effort with Private Industry and Other Government Agencies

The mission implied in the stated objectives for the technical career-oriented programs, demands a continuous and strong cooperation between the college and other private and public institutions. Although up to the present time, some cooperation has been obtained from the forementioned institutions, a stronger cooperative effort is required.

The concept of an "associate degree" is still not very well understood by some private industry managers and public institution administrators. Due to this fact, there are instances when in hiring personnel for their enterprises, they ask for a bachelor's degree preparation, when an examination of the job description for the concerned task, reveals that the job is more suitable for an associate degree graduate.

Being conscious of these and other similar facts, the college is organizing several committees to improve this situation. These committees are composed, mainly of people from the community: industrialists, business administrators, engineers, public agency officers, etc. Seven such "community liason committees" have been setup to deal with such matters as: community participation;

job opportunities, curriculum and equipment; college reaccreditation; articulation with the Puerto Rico Economic Development Administration; liason with the local industrial community; etc.

Additional efforts are also being made at both, the Administration of Regional Colleges level and our college, to promote technical career-oriented programs. This is done via: press releases, television programs and snap inserts, printed material, etc. The counseling staff and some department heads visit high schools frequently to conduct orientation sessions. Recently, a seminar was conducted at our college to give orientation about technical programs, to a large group of high school counseling personnel and printed information is sent periodically to their schools, so as to update the information received during the orientation seminar.

5.4.6 Projections

Some additional career-oriented programs are being projected. Their formal implementation depends, highly, on the availability of adequate funding. Among these:

- 1- Audiovisual Technology Program
- 2- Real Estate Technology Program
- 3- Recreation Technology Program
- 4- Insurance Technology Program
- 5- Notarial (Paralegal) Assistants Program
- 6- Judicial (Paralegal) Assistants Program

The Audiovisual, Recreation, Notarial and Judicial Assistants are planned to become regular daytime programs, while the Real Estate and Insurance programs are to be community service-

oriented, and offered mainly as evening or extension programs.

The offering, under a modified cooperative arrangement, of the Industrial Management program to a group of industrial supervisors from several manufacturing concerns and the use of the newspapers, television, radio and the mail to offer specialized technical courses, to those citizens unable to attend classes daily, are also being projected.

5.5 Transfer Programs

In addition to the technical career-oriented programs, the University of Puerto Rico Bayamón Regional College offers several transfer programs. These usually cover the first two years of the four years normally required to earn a bachelor's degree in various professional scientific and liberal arts fields. Upon successful completion of the first two years, a general associate degree in arts or sciences is granted to the student, before transferring to a senior campus. The following transfer programs are currently offered:

- 1- Humanities
- 2- Social Sciences
- 3- Natural Sciences (Biology, Chemistry, Physics, Math, etc.)
- 4- Engineering
- 5- Business Administration
- 6- Secondary Education
- 7- Secretarial Sciences

5.5.1 Specific Objectives

The area of application varies from one program to another, but the following specific curricular objectives are common

to all the forementioned transfer programs:

"Transfer curricula have been designed for the development and offering of programs in liberal arts and sciences which, upon transferring to an institution of higher learning, will enable students to successfully continue studies leading to a bachelor's degree".

These transfer program curricular objectives are considered adequate to Puerto Rico and the region served by the University of Puerto Rico Bayamón Regional College. As mentioned before, there is a natural thirst in any developing nation for the kind of knowledge offered in these scientific and liberal arts programs. The complexity inherent to an industrially-oriented country also merits the preparation of social workers, health care personnel, allied health personnel, engineers, business administrators, teachers and professional secretaries. All the curricular and instruction activities pertaining to the transfer program, are carried out using as framework the forementioned objectives. With only the possible exception of some Natural Sciences areas, where some existing limitations in physical resources, might be reducing their effectiveness, it could be concluded that transfer program curricular objectives are being met adequately.

5.5.2 Physical Resources

Human resources are presently deemed, on the average, acceptable for the transfer program area, as could be seen from Tables 5.1 to 5.3. The number students per section is also acceptable for this curricular sector, with the exception of the Humanities case

which during last semester exceeded the target figure of around 30 students per section. This points towards the need to enlarge the teaching staff in this department, which in addition to the humanities subjects, for those students majoring in Humanities, also teaches service courses for students in other departments.

Physical resources are acceptable in the Humanities, Social Sciences, Business Administration and Secretarial Sciences programs. These resources are, on the average, acceptable in the Engineering and Secondary Education programs. However, physical resources are considered inadequate in the Natural Sciences program areas, due mainly to a limitation in laboratory space and specialized equipment. There is only one laboratory room currently used for both Biology and Chemistry and another used for Physics. The blueprints and required budget plans have already been prepared for two Chemistry labs and sent to the Administration of Regional Colleges Planning and Development Office. Similarly four already planned labs in Biology are still pending construction: Microbiology, Human Physiology, Autotutorial and a second General Biology lab. Blueprints and budget plans were also filed last year in the forementioned Administration of Regional Colleges Planning and Development Office. The six planned labs, together with a second Physics lab have not being built due to a shortage in permanent improvements funds.

5.5.3 Articulation with Main Campuses

The Puerto Rico Council on Higher Education approved, in July 31, 1974, a set of regulations to govern the transfer of students from one unit to another within the University of Puerto Rico System. Its provisions are set forth in the Council on Higher Education Certification number 13 (74-75).

In accordance with the said regulation, there is an implied obligation of the University of Puerto Rico to give students admitted to the transfer program, a reasonable opportunity to continue studies towards the Bachelor's degree in a senior campus, within the University of Puerto Rico System. As such it states clearly that students who have earned a general Associate Degree in Arts or Sciences should be admitted to the third year of studies in the senior campus, and be given all the prerogatives given to senior campus students. Those who have not earned a degree at a regional college, are entitled to transfer admission after approving a minimum of 48 credit-hours (in good standing), subject to the availability of vacancies in the senior campus.

Articulation sub-committees should be formed in the diverse units and a central articulation committee was assembled at the University Board level (University of Puerto Rico President's level). The committee is composed of the Deans of Studies (or equivalent officers) of all senior campuses, the Dean of Academic Affairs of the

Regional Colleges Administration and the Head of the Central(University of Puerto Rico) Administration Office of Academic Affairs, who presides over the committee, and a student-body delegate. This committee serves as an advisory body to the University Board, on matters relating to the transfer of students between the diverse university units.

The approved course equivalences are registered in the Central Administration Office of Academic Affairs, tabulated, published and distributed to the diverse University of Puerto Rico units. These tables are reviewed periodically to update them. They form the basis to guide academic counselors and department heads, in the counseling and orientation of transferees in matters related to course equivalences among the diverse University of Puerto Rico units.

5.5.4 Special Courses

In addition to the forementioned general and specific curricular objectives, there is a specific objective dealing with the offering of complementary remedial courses:

"The designed curricula have been complemented with the establishment and subsequent offering of additional remedial courses in order to give students, with some academic limitations, a better opportunity to succeed in regular basic courses, mainly in the verbal and numerical skills".

To these effects, remedial courses have been established in English, Mathematics and the first steps are being taken to follow similarly in Spanish. Trips to Spain complement regular courses.

A study conducted by the College's English Department

found that, similar to the observed case of other regional colleges, the majority of the students taking Basic Freshmen English failed the first semester if their college board score in English was below 450. Some other regional colleges had experimented by offering these students an extra hour each week but the majority of them still failed most of the course objectives.

Attempting to give these marginal students a better opportunity for success, a remedial course was created: English 900, now called English 061. This one semester course does not count credit towards graduation requirements but gives students a better background in English as a Second Language.

The results of the forementioned study show that about 78% of these students who took the remedial course in English, went on and passed Basic English, the regularly required first course in English (English 101). This result compares favorably with the performance of those students that, having achieved scores of 451-800 in the college board test, took English 101 without first taking remedial English.

Similarly, the diagnostic test given to potential engineering students, revealed that many lacked enough knowledge of Trigonometry or/and Algebra, to be able to pass the first Mathematics course required in Engineering: Differential Calculus. In an effort to give these students a better opportunity for success, two remedial courses were established: Mathematics 121 for those lacking enough knowledge

in both Algebra and Trigonometry and Mathematics 141 for those lacking skills in Trigonometry only. The results of these show that their performance have improved in both areas and thus given these students a better chance of success in Differential Calculus and succeeding Engineering courses.

5.5.5 Outcomes

In searching for outcome measures in the transfer program, the diverse self study committees were motivated as stated in section 5.4.4. Most of the results of the analysis performed for both the transfer and technical programs were presented there and in section 4.5 on follow-up studies. Comparative analyses were also conducted when advisable.

However, there is a transfer program whose analysis was not reported in section 4.5: the Engineering Transfer Program. A special agreement, endorsed in May 1972 by the Chancellors of both, the Mayaguez Campus of the University of Puerto Rico and the Administration of Regional Colleges, authorized the University of Puerto Rico Regional Colleges at Bayamón and Ponce to start offering in both colleges all the courses corresponding to the first two years of studies in engineering. Upon successful completion of these, students are transferred to the University of Puerto Rico School of Engineering in the Mayaguez Campus, to continue studies (three additional years) leading to a bachelor's degree in engineering.

Last year the first group of students were transferred to the School of Engineering. These were 22 of the first group of 55 that were originally admitted. As stated in section 5.5.4, the majority of this group of engineering students were delayed in their academic progress due to the fact that their previous achievement in Mathematics (in High School) made it necessary for them to first take two remedial courses in mathematics prior to taking their first course in Calculus (Differential Calculus).

Their overall performance while in the Bayamón Regional College reflects a grade point index of 2.81 with a minimum of 2.22 and a maximum of 3.80. The general index they now have in Mayaguez after one semester there is 2.78 with a minimum of 2.23 and a maximum of 3.77. Thus, although there is a difference of about 15.73% between the overall performance in our college and that obtained during the first semester in Mayaguez, the corresponding lowering in overall grade point index is not significant (about 2.79%).

5.5.6 Projections

Two additional transfer programs are currently contemplated:

- 1- A three-year Pre-Law studies program
- 2- A Physical Education program

The Pre-Law program requires the approval of three years of studies at the Bayamón Regional College, after which the

student transfers directly to a Law School, upon successfully approving the corresponding entrance exams.

The Physical Education program requires the approval of two years of studies at the regional college, after which the student is transferred to a senior campus for the completion of the corresponding bachelor's degree.

The proposals for both programs have already been prepared and sent to the Academic Senate at the Regional Colleges Administration for approval. These are presently being studied by the Senate's Academic Affairs Committee.

5.6 Special Programs

Besides the regular programs already mentioned, the College has offered some special programs:

1. Experimental Remedial Program for High School Underscorers
2. Production Engineering Technology Articulation Program
3. Community Service Program

5.6.1 Experimental Remedial Program for High School Underscorers

The offering of this program complies with one of the forementioned specific objectives of our college, namely:

"Curricula have been designed for programs intended for the academic improvement of high school graduates with a grade point average below 2.00."

The basis for this special program is the thought that most students can master what is taught to them and that it is the task of instruction to find the means to enable students to master the subjects being taught; a theory posed by Professor Benjamin Bloom, from the University of Chicago.

The Bayamón Regional College, conscious of its responsibility to the youth of the Island of Puerto Rico, has introduced, on an experimental basis, the special academic improvement program.

Only high school graduates with less than 2.00 grade point average were admitted to the program. All candidates were interviewed by qualified counselors before registration, in order to survey their potentialities for academic success.

Their program consisted of 37 credit hours split in two semesters. Each semester included the following subjects: Spanish, English, Mathematics, Humanities, Art Workshop, Library Workshop and Orientation. These courses carried no official credit allotment, but they were administered with the same academic severity and strictness, as that applied to regular courses.

Student progress was monitored through montly meetings of the counseling staff and the program's faculty. Upon completion of the special program and based on the attained academic level of improvement, the faculty made recommendations on which students should be admitted to regular college programs.

The pilot run for this special program covered from 1971-72 to 1973-74. A total of 87 students participated in the program: 28, 28 and 31 in the years 1971-72, 1972-73 and 1973-74 respectively. In the said years, 14, 19 and 15 approved the requirements of the program and 12, 13 and 14 enrolled in regular college programs; 13 in technical and 26 in transfer programs. The Counseling Office is preparing a comprehensive report on all major aspects of this experimental program and the progress attained by these students that were admitted to the regular program.

5.6.2 Production Engineering Technology Articulation Program

"As an intermediate unit in the laddering process the community college must remain alert to the importance of maintaining close ties down the educational ladder as well as up it."

As a first step in an effort to facilitate this "downward articulation process", the Bayamón Regional College initiated in 1972-73 a project aimed at developing an articulation program with the high school, to offer the Production Engineering program to their students, starting at the eleventh grade and ending, after graduation from high school, with the two-year college program. Students take courses in Science, Mathematics, Social Studies, Mechanical Drawing, Mechanical Technology, English and Spanish. Some of these are usually taken in high school during the morning hours and the remaining courses are taken in the afternoon at the College: Science, Mechanical Drawing, Mechanical Technology and English Lab. College credit is granted

for some of these courses only upon successful completion of the program and after admission to the regular college program. Monthly meetings are conducted with the objective of asserting student progress and planning counseling strategies by high school officials, college personnel and a representative of the Regional Colleges, Administration, who serves as Technical Advisor to the Chancellor.

Thirty three students entered this program at the eleventh grade in 1972-73 followed by 28 and 22 in 1973-74 and 1974-75 respectively. Of the first 33, 13 were admitted to the regular college program and are still enrolled. Out of the second and third group, 17 and 21 still remain in this experimental program.

Upon completion of all program requisites by these groups, a decision will be made on the desirability of continuing this program indefinitely, taking as basis the evaluation of its achievements during this experimental phase.

5.6.3 Community Service Program

The community service academic responsibilities of the Bayamón Regional College, have been carried out mainly through specific petitions of interested groups and by making available teaching personnel and physical facilities to conduct short courses, seminars and some special programs. To mention some: Bridge Inspection, Reinforced Concrete Technology, Statistical Quality Control, Syndical Improvement, Library Sciences short courses and seminars, and the

Bilingual Teachers program. These have been offered in coordination with community institutions and organizations such as: the Puerto Rico Highways Authority, the Puerto Rico Economic Development Administration, the local Electric Industry and Irrigation Worker's Union, the Puerto Rico Department of Public Instruction and others.

The Learning Resources Center also contributes to the academic enrichment of the community: by making available to members of the local community its resources, by instructing and guiding them on the effective use and interpretation of material's content, and by exchanging resources with other public institutions.

Besides those already mentioned, there is also available an optional special program in Military Science (ROTC). It aims at training students in the military arts and sciences, placing emphasis on the development of qualities such as leadership, self-discipline and responsibility.

The basic Military Science and Tactics courses offered in this program are related to: military history, tactics, map reading, aerial photos, command lab, etc.

Upon completion of these courses, students could continue their training in the ROTC advanced program, in their junior and senior years, in a main University of Puerto Rico campus.

5.6.4 Projections

Conditioned to the availability of adequate funds, additional special programs are contemplated in the areas of:

1. Industrial Management
2. Secretarial Sciences
3. Computers Technology
4. Special Courses by way of Multimedia

A cooperative effort is under consideration to offer the Industrial Management program to a group of factory supervisors and middle management personnel of a nearby manufacturing concern. Under the potential arrangement, participants will attend college during the evenings for lectures, but the practical laboratory and workshop tasks will be conducted during the day in the factory. Since they are interested in receiving college credit and a degree upon completion of the program, a large proportion of the potential participants have already taken the College Entrance Examination Board tests. Considering that many of these supervisors have been out of school for some time, a suitable orientation program will be established prior to the initiation of this cooperative Industrial Management program.

Another special program being considered is a Secretarial Sciences articulation program with high schools. The approach to be used in this program will follow the patterns being experimented now in the Production Engineering Technology area, presented in section 5.6.2. A similar approach could also be employed in Computers Technology.

The Administration of Regional Colleges has recently announced the initiation of a series of courses to be offered by way of

multimedia. The first of such courses is related to the Women's International Year. The media to be used in this case is the newspapers, with a lecture being published once a week in the Sunday issue of a local newspaper. College credit will be granted for this course. Two exams are scheduled to be taken at a regional college during the term of the course. The College will participate actively in this multimedia special program. If the results of this program are acceptable, the College is considering the offering of another media program in Computer Science principles, using the mail as a suitable media and based on audio cassette modules.

5.7 Summary of Assets and Limitations

The analysis of the curricula and related resources and activities have disclosed among others, several assets and limitations:

Assets:

1. The dedication and enthusiasm of the instruction personnel has made it possible to achieve an acceptable degree of academic excellence in spite of the existing limitations in economic resources.
2. The availability of a relatively well balanced set of technical career-oriented programs, thus giving students from the local communities, the opportunity to acquire specialized skills to serve well the needs of Puerto Rico's industrial and commercial development.

3. The relatively successful development of laboratory resources in the Electronics, Instrumentation, Computer Science and Secretarial Sciences programs.
4. The efforts being achieved to promote technical career-oriented programs and the relative success attained in keeping the enrollment in technical -vs- transfer program areas, adequately balanced.
5. The availability of remedial courses in English and Mathematics to give marginal students, a better opportunity to succeed in corresponding regular courses.
6. The "spirit of innovation" displayed by the College, exemplarized via the experimental tryouts performed in the High School Underscorers and Production Engineering Articulation programs.

Limitations:

1. The economic human and physical resources shortages in some departments, impose limitations to the thorough achievement of curricular objectives.
2. A stronger cooperative effort with private industry and other government agencies is needed.
3. A re-orientation of the elementary education program, to cover other areas of higher employment potential, like for example the mathematics and science option, is required.

4. As a direct consequence of the climbing demand for new admissions, more pressure is put on the College each year, to increase enrollment. The lack of economic resources has prevented it from satisfying this demand adequately.
5. Program loads per semester need revision in some technical programs to allow students to graduate in the prescribed period of time.

The awareness of these existing assets and limitations, triggered by the conduction of this self study, should lead our institution to improve all asset areas, as well as to take all the necessary steps to reduce or eliminate those that reduce the effectiveness in meeting its curricular objectives.

Chapter VI: THE FACULTY

Experience has explicitly demonstrated that a faculty which possesses a high degree of academic competence coupled with high professional standards almost automatically provides any institution of higher education with the best guarantee that its institutional goals and objectives will be met in the shortest period of time and with the optimum results possible under any given normal circumstances. The Bayamón Regional College, in the process of self-evaluation has rediscovered that it has successfully recruited a faculty which is, indeed, highly competent and professional. A discussion of this and other findings related to the Bayamón Regional College Faculty brought about as a result of the evaluation process, follows.

6.1 Recruitment

It has been an objective of the College to recruit teachers who are knowledgeable in their fields, well informed about related areas, interested in innovative methods and educational findings, and who are hardworking and young in attitudes and enthusiasm. Consequently, all candidates aspiring to become a part of the Bayamón Regional College Faculty must truly possess the knowledge and in most cases the experience required for the position sought, as well as the personal attributes expected of all college functionaries.

However, although the objective previously mentioned has not varied, recruitment procedures nevertheless have. Initially, the

decisions regarding recruitment were made by a few, seldom using selection criteria other than academic preparation, experience and subjective projections as to the potential of candidates which records seemed to make apparent. The College did not have available the human resources needed to hold interviews and evaluate candidates as thoroughly as would have been advisable. The College nevertheless considers that the best that could have possibly been achieved under the circumstances was, indeed, achieved. Proof of that is, for example, the fact that the challenge of recruiting a young staff that would grow with the College, its problems and achievements, was successfully met.

At present, in terms of procedure to follow in applying for a teaching position at this College, a candidate must file the job application form in the College's Personnel Office accompanying said form with all pertinent documents. The Department Chairman usually initiates the recruitment process as an official representative of the institution. Professors in the departments often participate in the process by serving in interview committees or in advisory committees to the Chairman. Application forms, diplomas, titles, curriculum vitae and any other pertinent documents are evaluated. As often as circumstances allow it, efforts are made to interview the candidate in person. If after this process the candidate is found to meet the department's expectations and needs, the department recommends him to the Dean and Director of the College through the Associate Dean for Academic Affairs.

The Dean and Director, with the approval of the Dean for Academic Affairs and in consultation with the College Board, makes the corresponding recommendation to the Chancellor of the Administration of Regional Colleges, who is the nominating authority.

The Administration of Regional Colleges is currently considering the establishment of a bank of files consisting of applications of candidates seeking positions at the regional colleges level. These files would be stored and pertinently kept up to date in the Office of the Dean of Academic Affairs at the Administration of Regional Colleges' level. Any regional college in need of personnel would resort to these files when seeking to fill vacant positions. Naturally, this bank of files would be a resource used in addition to the direct application-to-the-college procedure. In any case, it is hoped that this "bank system" will soon be implemented and that it will accelerate the College's recruitment process.

6.2 Composition

As it is a member of the University of Puerto Rico system, the Bayamón Regional College uses the traditional classification for teaching personnel. Thus, assistant instructors, instructors, assistant professors, associate professors and full professors, as well as librarians, form what is known as the Bayamón Regional College Faculty which consists of 102 members. Table 6.1 depicts faculty composition distributed by rank and academic preparation. This number itself is of

Faculty by Rank and Degrees Obtained

| Degree | Rank | | | | | | | Total |
|-------------------|----------------|---------------------|---------------------|-------------|----------------------|-----------|----------|-------|
| | Full Professor | Associate Professor | Assistant Professor | Instructors | Assistant Instructor | Lecturers | * Others | |
| Total | 1 | 6 | 28 | 51 | 14 | 2 | 35 | 137 |
| Doctor's | - | 1 | 3 | - | - | - | - | 4 |
| Master's | 1 | 5 | 22 | 37 | 2 | - | 20 | 87 |
| Bachelor's | - | - | 2 | 10 | 11 | 1 | 11 | 35 |
| Other Preparation | - | - | 1 | 4 | 1 | 1 | 2 | 9 |
| Associate Degrees | - | - | - | - | - | - | 2 | 2 |

*Service Contract

interest when it is compared to thirty-eight, which was the original number of members that the faculty had when the College first started in 1971. The faculty has, needless to say, undergone a dramatic change in size. The figures for 1973: 92, and for 1974: 102. The total for 1974 is perhaps a figure that is reaching the ceiling that financial resources have set on faculty growth. Significant increases in the number of the College's faculty members are not foreseen for the academic year of 1975-76 due to financial limitations. As a matter of fact, an analysis of academic offerings must be made in order to adapt these to the number of faculty members existent at present. The projected number of students the College would have for 1975-76 was around 3,000 but it seems this will have to be reduced to around 2,000 if the College is to be able to adequately provide for them with the budget situation as it is. A more detailed analysis of the College's financial difficulties is found in the Chapter on Finances in this Self-Study Document.

Of those one hundred and two members in the faculty, only one holds the rank of full professor, with the majority falling into the rank of instructors (49%) and assistant professors (24%). Needless to say, the College's youth accounts for that.

The number and types of appointments, on the other hand, are also those common to the University of Puerto Rico system. These classify teaching personnel within the following categories:

- a) Tenure - Personnel is eligible for this category after five consecutive years of service under a probationary appointment.

- b) Probationary - It is granted to personnel working full-time in regular positions and who have not yet obtained tenure.
- c) Temporary - Temporary appointments can be granted for a maximum of three years. These appointments are granted to personnel occupying provisional positions that the College considers may be eliminated from the budget at a later period of time.
- d) Substitute - This appointment is granted to personnel temporarily occupying regular full-time positions assigned to other faculty members who are on leave.

In general, the majority of the faculty have probationary appointments and only ten are tenured.

As can be observed in the Table on Academic Preparation, most members' have obtained their master's degrees - sixty-nine per cent is certainly a high percentage on that. In striving to provide the educational environment best suited to meet the particular needs of our students, the College favors personnel holding master's degrees and has therefore made a point of seeking to recruit personnel with this academic preparation, although candidates holding bachelor's and doctor's degrees have obviously been accepted. Personnel holding doctorates constitute 3% of the total, but due to the philosophy and policy already mentioned it is felt that, whereas it is convenient to have various members with doctorates in the different departments, it is not altogether vital to have the majority of the faculty with said degrees. Furthermore, many of the members with master's degrees have interest in obtaining their doctorates and probably will, thus helping to supply

more doctorates to the faculty.

Most of the faculty members, to mention other details of composition, are American citizens. Nevertheless, foreigners also form an important part of the faculty and represent 8% of the total. Nine members of the faculty are on leave and distribution of the faculty in terms of sex is more or less even, with 47% of the faculty pertaining to the fair sex and 53% of the faculty constituted by men.

One of the most salient features of the faculty is, in addition, its youth. The majority of its members were found to be thirty-five years old or younger. The College can proudly assert that its faculty is one of the youngest on the whole Island.

Another outstanding characteristic of the faculty is that it is not satisfied with its achievements and demonstrate a very healthy attitude in constantly seeking advancement and change.

6.3 Orientation

There are various sources of orientation for the faculty of this College. These are:

- 1) The Office of the Dean and Director
- 2) The Office of the Dean for Academic Affairs
- 3) The Personnel Office
- 4) The Chairman of the department in which the professor works
- 5) The Orientation and Counseling Services Office
- 6) The Bi-annual Faculty Orientation Seminars conducted since 1973.

Orientation on administrative matters usually proceeds from the Office of the Dean and Director, and the Associate Dean for Administrative Affairs, whereas orientation of an academic nature originates in the Office of the Associate Dean for Academic Affairs. On the other hand, if the guidance needed concerns medical insurance, social security benefits, salaries, etc., the Personnel Office is the one to provide it. Orientation of a personal nature is also available and may be provided by the Counselors. General orientation has also been conveyed by means of the three Faculty Orientation Seminars conducted to date.

In addition, there is draft of a Faculty Manual containing information about the College: the duties and rights of professors, etc. Most of the guidance process, however, is carried out through the Department Chairman. He is directly in charge of supervising professors and maintaining them well informed on what is happening at the College.

6.4 Responsibilities

Functions

The primary responsibilities of the faculty consist of teaching, formulating and revising the curriculum, preparing instructional materials, and participating on committees, at the general faculty level, on a departmental level or as designated by the Dean and Director of the College. Professors should also attend general faculty meetings, departmental meetings and commencement exercises. In addition,

professors are responsible for making themselves available to students for a minimum of six hours per week. This office hours period, as it is called, is for student's consultation, for individualized instruction and it is also a period for the exchange of ideas, impressions, etc., between students and professors. In some science and technical courses, the teaching of a laboratory period is part of the professor's task. Laboratory periods, however, are not directly equivalent to lecture periods. The usual equivalence is one and a half credit hours for every three contact hours in laboratory; however, equivalency for purposes of determining teaching loads varies according to the specific courses involved. Professors have expressed their reservations concerning these equivalencies at different times in the past and the matter was brought up at the Academic Senate resulting in a re-evaluation of guidelines in this area. The re-evaluation is still in process.

Teaching Loads and Course Preparations

The normal teaching load is 12-15 credit hours. Exceptions are made, of course, in those cases in which professors perform duties of an administrative nature or carry out special investigation or creative assignments.

The active and direct participation of faculty members in the formulation of institutional policy is limited as this is mostly determined on general university level by the Council on Higher Education. The faculty is able to participate indirectly in institutional policies,

however by, among other things, proposing the creation of academic programs and by proposing changes and revisions in curriculum through different departmental and college level committees, as well as via their elected Senators in the Academic Senate.

Faculty participation in the Academic Senate is made possible through four elected senators and in the Administrative Board by an elected representative of the faculty. Interaction with the Academic Senate is encouraged and all faculty members are invited to attend its meetings. Nevertheless a more active participation is affected by the geographical separation of the College and the Administration of Regional Colleges.

6.5 Evaluation

Faculty evaluation has traditionally been a subject of controversy. Evaluation in the Bayamón Regional College is no exception. As an integral member of the University of Puerto Rico system, the Bayamón Regional College is subject to the same regulations concerning evaluation that the University of Puerto Rico must follow. Although the University Law passed in 1966 ordered a revision of the University By-Laws, as of today the new set of by-laws is still not in effect. As this report is written, it has been informed to the College that 90% of the document is complete and that there is a good chance that the final document will be in effect by the year 1975-76. This will set uniform policies and practices concerning evaluation, which up to now have

been as diverse, as the different components of the University of Puerto Rico.

The Bayamón Regional College has carried out evaluations as it deemed proper and practices in the past consisted of having the department chairman study the professor's files, visit his classes, and gather colleague and student opinions of the professor in question. The Chairman would also conduct interviews with the professor being evaluated and would, in general, consider the professor's mastery of the subject matter, his ability to transmit knowledge and his responsibility, punctuality and creativity for purposes of evaluation.

The Academic Senate is currently on the verge of concluding a study of evaluation practices and is expected to present uniform and objective guidelines for evaluation procedures in the very near future, perhaps this year. It is hoped that these will help stabilize evaluation norms and eliminate this potential source of discontent of the faculty. The latest news related to these guidelines seems to indicate that they settle as follows.

Evaluation is to be carried out on a yearly basis by a committee on a general faculty level for the purpose of improving the teacher's teaching techniques, for renewal of contracts, and for the granting of promotions. This evaluation committee will consist of members who will initially serve for varying periods of time and the Associate Dean for Academic Affairs will serve as an ex-officio member of the

committee. He will be a permanent member of this committee and members should be full-time faculty, they should be full or associate professors and they should be tenured. If these requirements cannot be fulfilled, substitute procedures should be established. The requirements taken into consideration for recommending promotion are, in general: academic preparation, years of service, the quality of teaching, fulfillment of responsibilities and cooperation in faculty endeavors, general dedication to university service, research, contributions to the courses taught, guest lecturing, publications and honors received.

The same evaluation committee will evaluate professors for purposes of granting tenure. The professor will be evaluated during the second semester of his first year of service and during the first semester of his fourth year according to institutional regulations. In addition, other evaluations will be performed if deemed appropriate. This evaluation committee will consist of three to five members who will serve on the committee for three years. They should be professors or associate professors with tenure, but if there should be no eligible members to form the committee in this manner, a substitute committee will be formed according to other criteria to be established. The Associate Dean for Academic Affairs will also be a permanent member of this committee. (In order to be eligible for tenure, the teacher must have completed five consecutive years of satisfactory work with a probationary contract). Once the evaluation procedure at the committee

level has ended, the committee submits its recommendation to the Dean and Director who submits his, in turn, to the Chancellor after having consulted with the College Board. The Chancellor then submits the recommendation to the Administrative Board which is the body authorized to grant promotions or tenure.

6.6 Rights

Apart from having responsibilities to meet, the faculty has certain rights and privileges to which it is entitled. Academic freedom is, for instance, one of them. The atmosphere of the College must, by law, provide its faculty with academic freedom and with the freedom to carry out scientific research. A professor thus has the right to the free presentation of matters related to the course in the classroom; however, he must exercise the necessary discretion so as not to introduce to the classroom discussion controversial matters which are of no significant relevance to his dissertation. The only other limitation is that imposed upon him by ethics and the fulfillment of his other academic responsibilities.

Financial remuneration is another of the faculty's rights. The faculty is remunerated according to academic preparation, rank and years of service as established in the basic scale approved for the University of Puerto Rico system, and it receives a special incentive differential of \$100 per month for the Regional Colleges. At present, professors' salaries range from \$720 to \$1,480 per month with an

equivalent three months paid vacations.

The University of Puerto Rico also provides professors various kinds of leaves. Professors have the right to apply for one of several leaves of absence: extraordinary leave without salary but with financial aid; with salary; with salary and financial aid during the summer; without salary; special financial aid; and sabbatical. These leaves have been instrumental in stimulating some members of the faculty to pursue graduate studies. To the extent that it has been made possible, the College has allowed those professors holding bachelor's degrees, who have shown aptitude for teaching and dedication to studies in the area of their respective fields, to continue towards their master's degrees. During 1973-74 and 1974-75 a total of ten leaves of absence with financial aid, one sabbatical and five leaves without salary were granted. During 1974-75 there was an increase of three leaves without salary granted. This is an indication that the faculty maintains itself active in terms of professional improvement even in situations in which the University cannot finance its studies. This improvement, in turn, manifests itself in the quality of teaching.

Other kinds of leaves to which professors are entitled are: sick leaves, maternity leaves and special leaves for military, judicial, and/or registered political candidacy purposes. All full-time faculty members are entitled to sick leave at a rate of one and a half days for each month of service to a maximum of 90 days. Maternity leave is

granted to those faculty members who after two years of service are in their fifth month of pregnancy at the beginning of the semester. This leave entails full salary for a semester.

Other rights to which professors are entitled are university contributions toward payment of teachers' medical plans and Social Security System, as well as toward teachers' retirement plan. The Retirement System is a unit within the University of Puerto Rico whose fundamental object is to guarantee personnel an income at the moment of retirement. All personnel who have a probationary appointment or have achieved tenure receive a mandatory monthly deduction of four per cent for the first \$350 and six and a half per cent for quantities above that amount. Benefits derived from this Retirement Fund include among others:

- 1) Personal and mortgage loans.
- 2) Pension for occupational or non-occupational disability.
- 3) Benefits for accidental or natural death while in active service.

6.7 Professional Advancement

The faculty has varied means and resources by which to seek professional growth and enrichment. Study leaves, as mentioned previously, have been granted in order to provide faculty members with the opportunity to pursue scholarly interests. Nevertheless, the Bayamón Regional College's youth together with the budgetary limitations it has suffered explains why study leaves offered to this date have

not, unfortunately, responded in frequency and quantity to the professors' stated needs.

A variety of seminars and workshops for the Faculty's enrichment have also been available, some in the College and others in other institutions. Specifically, to mention a few, there were among others the following:

- 1) Seminar on Education at the Barranquitas Hotel on December 15, 1973. Its main objective was to present the faculty with strategies for more dynamic and effective teaching outcomes as preparation for individualized instruction.
- 2) Seminar offered by the Education Division of the AIBS Biotech Project for biology professors.
- 3) Behavioral Objectives Workshop offered by a visiting professor to our teaching staff.
- 4) Laboratory Workshop for English professors.
- 5) Seminar on Curriculum Innovations and New Methodology for Teaching Business Subjects held October 4, 5 of 1973 at the University of Puerto Rico.

Professors have, thus, attended a series of seminars and workshops prepared by members of the Bayamón Regional College and by members of other institutions. They have also been to different conventions in their fields making use of the financial resources made available to them by the College or attending these conventions financially on their own.

Faculty members here are also affiliated to a number of academic and professional associations which keep them abreast of

news related to materials, innovations and trends in their respective fields. Some of these associations are, among others: ALA, TESOL, MLA, American Concrete Institute, American Bar Association, National Business Teachers' Association, American Chemistry Society, etc.

In addition, the community college atmosphere of the Bayamón Regional College demands, by its very nature, that there be active interaction between the College and its community. Consequently, the College has sponsored a cycle of lectures which different members of the community who are prominent in academic, industrial or business matters have given for the benefit of the faculty, student body and personnel of the College. Benefits of professional growth for faculty members as a consequence are quite obvious.

During the academic year of 1973-74 contacts were made with other institutions such as the City University of New York at Fredonia with the objective of designing a faculty exchange program. A joint proposal for funds under Title III has already been filed in the concerned federal offices in Washington, D.C. The College also contemplates establishing a full-fledged faculty exchange program within the Regional Colleges of the Administration of Regional Colleges. It has, as a matter of fact, begun by having a professor teaching both here and at the Arecibo Regional College. Obviously, the College hopes to expand this exchange considerably and is confident that it will be

able to do so in the near future.

Enrichment in terms of formal scientific research, on the other hand, has been limited on the faculty's part. Apart from the research carried out as a requirement for graduate studies, or as part of another institutions research team, the faculty's incursion in the field has almost been non-existent. Studies on an informal basis has nevertheless been carried out by departments and by individual teachers on their own. The Physical Education Department, to mention one example, undertook a study involving give hundred and fifty students in order to determine which sports students were interested in participating or being trained in. This Department was interested in using the results to develop courses responding to students' needs and to ask for corresponding physical resources. Another study was undertaken by faculty members to determine the causes for partial drops according to students' opinions as well as to professors' opinions.

Follow-up studies for graduates are also being carried out by professors. A questionnaire was prepared and sent to out graduates and a final analysis of the data is being prepared. This should provide the basis on which to reach conclusions regarding the impact that the technical education provided by the College is having on different economic areas in Puerto Rico. The feedback given by graduates should help to establish the needs technicians have at present and should thus bring about pertinent modifications in the technical courses and

programs in existence.

In a similar manner, other professors have carried out activities which can be considered informal research, mostly to satisfy their intellectual curiosity or to discover data which they could use as aids with which to solve practical problems in their fields or working situations. Formal, intensive and more intellectual scientific research, however, is seriously lacking. The lack of this more formal research can be attributed to the work load professors and to budgetary limitations. In addition, the Bayamón Regional College's role and atmosphere of a community college does not provide its faculty with the perhaps excessively heavy stress placed upon elaborate and intensive scientific research sometimes considered the sole end of some institutions of higher learning. This does not mean that the Bayamón Regional College rejects research. On the contrary, it believes that research is a highly important part of the teaching process and realizes that it must do more than it has done to foster it, but it sees research as a complement to teaching and not as an end in itself.

6.8 Goals

If faculty members were to be asked what their goals are, there would certainly be as many answers as there are teachers. Striving to achieve a consensus of opinion, a committee was appointed with the purpose of revising the Institution's general and specific objectives as they are, in turn, the objectives of the faculty. The

committee produced a draft, copies of which were distributed to the faculty for the necessary evaluations and modifications that would incorporate faculty opinion regarding their goals and those of the College to said document. This entire process produced the objectives for the College mentioned earlier in this Self-Study Document. The faculty's role consists of, among other things, attempting to achieve said objectives. Each professor should thus, through his performance, meet the College's goals on an individual basis.

One limitation observed, however, is that as a result of the activities mentioned the faculty seems to be acquainted with the College's objectives on a general level and is working to meet them, but that it nevertheless needs to obtain a much deeper realization and greater awareness of the implications of said objectives. The College has found that the faculty needs to better prepare itself in order to understand, for example, the meaning of associate degrees, the importance of technical programs in responding to the needs of the College's students, and the mission of the College on the whole.

Faculty members need help, in addition, in identifying the specific objectives of their courses and in adapting these in order to provide the necessary inter-relationship between these and the overall objectives of the College. Proper identification of specific course objectives would, furthermore, facilitate the utilization of the Learning Resources Center to the benefit of both students and professors in

attaining the objectives of the course and of the College. In-service training, more orientation, and guidance should produce the desired level of faculty awareness needed in meeting the College's -and thus the faculty's-goals and objectives on the whole.

Faculty Opinions

One very important abstract goal which our faculty is very much aware of is teaching-quality improvement. How does our faculty view this? How does our faculty view itself and others? As an attempt to find answers to these questions and for purposes of self-evaluation, the Faculty Committee produced a questionnaire which confronted professors with questions regarding themselves, their students and the College. Time limitations, probably, affected the format of the questionnaire unfavorably. Several professors reacted by stating, among other things, that proper wording was not evident in all the questions and that some should not have been included. Professors did fill out the questionnaire, nevertheless. Most of them signed the questionnaire and some included comments to explain their answers. The answers to the questionnaire were used as indicators of the opinions of professors on diverse matters.

Regarding students, 85.8% of the faculty classified them as falling between satisfactory and poor in terms of academic preparation. Professors consider that they need to exert themselves more in order to reach all their students. Possible solutions mentioned by

professors to overcome this limitation were:

- 1) To offer more remedial courses .
- 2) To offer more tutoring.
- 3) To stimulate individualized instruction to the maximum.

When viewing and evaluating themselves, 97% considered that the teaching carried out at the College is effective notwithstanding the excessive number of students. Professors added that they were sacrificing their graduate studies and "free hours" for the students' benefit. Professors also consider that the College has a faculty which has a good academic preparation and also found themselves to be well guided by their superiors, although a recommendation to the effect that an orientation committee be set up for the benefit of newcomers was made.

Faculty relations with other departments, administrative offices, etc., were catalogued as "good" and recruitment procedures were classified as falling between "good" and "excellent". One recommendation made, however, was that an evaluation committee composed of members of the department be formed for purposes of evaluating new members of the department in question.

Other limitations found by the faculty all revolved around the financial factor. The faculty specifically mentioned the need for more funds to provide more: a) clerical personnel; b) facilities for reproducing instructional material; c) laboratory equipment;

d) facilities for students (more areas for recreation, informal meetings, etc.); and e) offices and office materials for professors.

6.7 Summary of Assets and Limitations

Assets

1. The Bayamón Regional College, fully aware that an institution's faculty can constitute one of its fundamental assets and attempting to follow the best of university tradition has, as mentioned earlier, secured a superior faculty. First of all, the faculty is composed of, for the most part, young but experienced teachers. Implicit in their youthfulness is the attribute of flexibility of thought and attitude. Evident in their background is a wide range of experience in education and related fields upon which they may draw for the benefit of the Institution.

2. The faculty is, furthermore, quite cosmopolitan. Students are able to benefit from contact with the different cultures that faculty members represent. Specifically, it is composed of Puerto Ricans, Spaniards, Cubans, Colombians, Dominicans, and North Americans. Apart from the diverse cultures they represent, faculty members travel quite often, thus coming into contact with other cultures in their travels. The wealth of experiences undergone by their traveling is also transmitted to the students, providing them with more cultural enrichment yet.

3. The subject of the cultural relations between the faculty and students brings forth the broader range of student-faculty relations. These are excellent. It is very common to see professors interacting with students out in the halls, in the cafeteria, in the parking lot, etc. Students look up to professors with respect, but at the same time consider them their friends. The solidity of these relations has been a determining factor in the low incidence of serious discipline problems.

4. The academic preparation of the faculty is another asset. Members of the faculty are definitely well prepared. Most have master's degrees heightened by effective teaching experience. Apart from this, our faculty is continuously seeking to improve itself, obtaining new ideas and innovative educational methods in the process.

5. Above all, however, is the dedication and the hard-working character of the Bayamón Regional College Faculty. Indeed, the Bayamón Regional College must acknowledge the fact that without the hard work and sacrifices of its faculty, as well as without the work of its administrators, the College would have been unable to provide the quantity and quality of services it has rendered since its inception three years ago.

Limitations

1. Our faculty, although superior, is not yet perfect. It does have limitations, many of which result from financial difficulties. Problems concerning teaching loads, faculty enrichment, and the number

of students per section are examples of this. In detail, as far as loads are concerned, it has been evident that although the normal load of a professor is 15 credit hours as mentioned earlier, there have been a number of professors who have had greater teaching loads than usual at different periods of time throughout the College's existence. In a particular case the load skyrocketed to 24 credit hours and there have been other cases such as those of the Mathematics, Social Sciences, Education and Business Administration Departments in which professors have taught an average of eighteen or more credit hours. The technical programs of Industrial Management, Secretarial Sciences and Electronics have also faced the same situation. This has all been due to lack of funds and has affected these programs unfavorably. A professor who has a load of eighteen credit hours (six sections) and multiple preparations, as in the single case of Industrial Management, is performing a mammoth task and is absolutely unable to carry out the normal functions of a professor. At present, only 3% of the faculty teach 24 credits, but a good 41% teach more than the average. The excessive teaching loads that professors have had in previous years and this academic year have thus created situations affecting teaching and the development of the Institution, since under those circumstances: a) it is difficult if not impossible to provide the individualized instruction so desperately needed by the student body; b) the heavy workloads leave little time for studies and research, as well as for tangent endeavors which always

develop in a teaching institution; c) in general, the amount and degree of stress on overburdened professors may be reflected in the quality of teaching and in the overall performance of professors as human beings. Nevertheless, it is the opinion of various department chairmen that when faced with the option of selecting between assigning additional sections to full-time personnel who have other responsibilities and interests besides this College, it is preferable to choose the former. Availability, together with more dedication to the College accounts for this selection. Neither of the options are particularly tempting, however. It simply amounts to selecting what is "least worse" and not what is better.

2. Furthermore, the budgetary situation has required that an order of priorities be established which has not allowed for the granting of the number of study leaves which can be considered reasonably advisable. This has reduced a form of enriching teaching quality. Again, the number of students in each section has been higher than that advisable and this situation presents another limit to the quality of teaching. This, as well as the teaching-load situations, were measures taken as a temporary solution to the problem in which the number of students in the College were not adequately provided for in the budget. Measures to be taken in coping with the financial situation will be discussed in the Chapter on Finances.

3. Not all the faculty's limitations are based on financial problems, however. The Bayamón Regional College's youth, although

an asset, also presents limitations to the faculty. Departmental structures due to the College's youth are not yet settled. These have not reached the necessary basis of stability on which professors may function more smoothly or easily. Time itself should help settle these structures. Departments have grown - they simply need more time to settle.

4. Another influencing factor is that most of the faculty members do not have tenure. This may result in a tendency on the part of the faculty to be less outspoken on matters related to the College for fear of being misinterpreted. This may set a limit on active and effective faculty participation and may represent a loss for the College. Encouragement and guidance on the administrators part should help overcome this limitation.

5. Evaluation procedures have, on the other hand, presented some discomfort to the faculty due to the lack of uniformity in implementing them. The College's awareness of the situation, as well as the new recommendations and directives that the Academic Senate is expected to present, should improve the situation considerably. Directly related to evaluation also, is the five-year probationary period required for the granting of tenure. Many feel that this five-year requirement is much too long and that a three-year period would be more reasonable. The subject has been brought up and is currently under study at the University Board. It seems that lowering the period to four

years presents itself as a possibility, although no definite decision has yet been reached.

6. One curious factor is the distribution of men and women occupying teaching or administrative positions here. The fair sex occupies nearly half of the positions in the College. This situation proves to be an asset due to the enrichment and insights that ladies bring forth to their jobs. Nevertheless, there is one limitation. Most of the women teaching are married. This means that family ties and responsibilities are quite strong and there is less flexibility of movement on their part. For example, graduate studies outside of Puerto Rico become limited if not non-existent for married women. The enrichment that graduate studies provide is limited to that offered here in Puerto Rico. It is the College's position that a professor's not being able to pursue graduate studies outside of Puerto Rico can constitute a limitation. This is not to undermine the quality of graduate studies here. There is full respect for that. Nevertheless, a limitation in pursuing graduate studies here surfaces when one considers that the wealth of experience resulting from contact with other cultures and with other schools of thought is not as great when a professor pursues graduate studies here as it is when studying in a different country.

7. One limitation that could possibly come into existence in the future is over-emphasis on technical programs. There is no over-emphasis on these at present, but efforts are being made to have more

students become interested in technical programs in order to supply Puerto Rico with the technicians that it urgently needs. This is, in the College's opinion, a very valid goal. At the same time, however, it is aware of the fact that it must not fall into the extreme of preparing a surplus of technical program graduates. Policies concerning programs obviously affect new faculty recruitment, as well as the composition and stability of the faculty as it stands now. It might appear awkward that the College is considering in this self-study a limitation that isn't even present at this moment. Preoccupation about having it crystalize into reality is nevertheless valid and its mention has consequently been considered appropriate.

8. Another important element that was brought to light as a result of the self-evaluation process is the issue of faculty awareness. As mentioned earlier, it seems that more faculty members need to be made aware of the community college philosophy and that which it entails. This is to say that although a fair number of members are aware of the Bayamón Regional College's role as a community college and understand its mission, there is still approximately half of the faculty which does not have a completely clear idea of what the concept of a community college really is. The importance of technical programs -a ramification of the problem- must also be heightened in the faculty's eyes. Faculty members' academic backgrounds may have been a determining factor in the creation of this "awareness problem". Many professors

whose academic molding took place in institutions widely regarded as high in scholastic achievements and social prestige or who have taught in said institutions, for example, are perhaps more likely to place humanistic studies above technological ones in terms of importance and may fail at times to grant the latter the merit that they, too, deserve. It is hoped that these faculty members will be able to overcome this limitation after undergoing a battery of orientation activities and inservice training especially geared to confront them with: a) the intrinsic values of technical programs; b) the valid position of the College in providing them and consequently; c) the level of faculty awareness needed to meet the College's and the faculty's goals in a more effective manner.

Chapter VII. PHYSICAL PLANT AND EQUIPMENT RESOURCES

The resources available at the Bayamón Regional College are quite varied. They can, for purposes of convenience in their description and analysis however, be grouped into four major areas: financial, administrative, teaching-learning, and physical plant and equipment resources. The financial and administrative resources have already been mentioned and analyzed in previous chapters. The teaching portion of the teaching resources has also been discussed in terms of teaching personnel. In order to facilitate analysis and evaluation, the remaining resource areas are discussed here and in Chapter VIII.

7.1 Floor Area Allocation

The Bayamón Regional College is located in the Minillas District of Bayamón on a seventy-acre plot of land which was donated to the College by the Municipality of Bayamón. At present, five large main buildings together with three smaller ones and two additional facilities constitute the tangible framework of the College. The College also has a basketball court and a volleyball court and there is an additional large main building still under construction. Four of the five large buildings consist mostly of classrooms and labs. The fifth and part of the sixth are a new site of the Learning Resources Center. Two of the smaller buildings include administration offices and the third is the vehicle maintenance building part of which is used also as a gymnasium. The coffee shop is located in one of the additional facilities and the bookstore in the other.

The space area in use consists of 141,500 square feet which with an enrollment of 2,809 students yields an area of 50 fifty square feet per student.

7.2 Classrooms

The average classroom area may be altered according to the College's needs. This year, for example, five classrooms with an area of one thousand square feet each were temporarily prepared in order to accomodate larger class sections than usual. This was done by removing the walls between two adjacent rooms. Rooms so formed were then equipped with amplifiers so as to ensure that professors could be heard throughout the rooms. Laboratory classrooms, on the other hand, have areas falling between 700 and 1250 square feet with the exception of the technology of production laboratory which has an area of 4000 square feet.

A summary of specific facilities can be seen in Table 7.1. This summary would be incomplete, however, without explanatory notes as to the state of said facilities. The College's lack of funds has impaired the development of some of its resources. The latter have somehow fallen short of following the course originally planned for them. The College for example, still lacks the following permanent facilities.

7.3 Laboratory Resources

Many laboratories are lacking much needed materials and equipment. In addition, there are courses requiring laboratory

Summary of Facilities in Main Buildings*

| Facilities | Number of units | Area ² (feet) | Remodeling | |
|-----------------------------|-----------------------|--------------------------------|------------|-------|
| | | | Units | Area |
| Classrooms | 43 | 24,700 | 5 | 3,500 |
| Laboratories | 18 | 22,100 | 4 | 4,375 |
| Administration Offices | 43 | 5,975 | | |
| Professors' Offices | 56 | 7,450 | | |
| Storage | 35 | 5,425 | | |
| Lobby | 13 | 11,800 | | |
| Halls | 34 | 17,778 | | |
| Drawing Rooms | 2 | 2,000 | | |
| Learning Resources Center : | 1 | 21,600 | | |
| Conference Room | | | | |
| Auto-Tutorial | | | | |
| Periodical Area | | | | |
| Group Study Rooms | | | | |
| Reference Area | | | | |
| Reading and Shelving | | | | |
| Programming Room | 1 | 300 | | |
| Demonstration Room | 1 | 2,250 | | |
| Reproduction | 2 | 200 | | |
| Health Services Office | 5 | 600 | | |
| Recreation Room | 1 | 1,750 | | |
| Coffee Shop (Prep.) | 1 | 1,000 | | |
| Bathrooms | 26 | 5,350 | | |
| Shower Rooms | 2 | 500 | | |
| Coffee Shop (Serv.) | 1 | 1,400 | | |
| Bookstore | 1 | 2,600 | | |

*The building under construction is not included.

practice which still do not have their laboratories built. There are no microbiology, physiology, organic chemistry, metallurgy, sculpture and ceramics, nutrition or auto-tutorial biology laboratories.

Laboratories lacking equipment or materials include the following: industrial management, languages and biology.

Students of dietetics have in the past taken their laboratories at the Río Piedras campus for lack of their own laboratory facilities. A dietetics laboratory is now already built, however.

The Technology of Production Department does not have a metallurgy laboratory and students in that department have depended upon trips to private factories or industries in order to observe and analyze equipment and work techniques related to their courses. Physiology and chemistry students are sharing the laboratory facilities originally destined for biology students.

7.4 Athletic Facilities

The College lacks facilities for the practice of baseball and softball as well as for the practice of track-and-field sports. The facilities being used as a gymnasium are temporary, as they were built to be used for the Maintenance Division.

The Physical Education Department is using the athletics facilities of the Municipalities of Bayamón, Guaynabo and Cataño. Students and professors consequently lose valuable time and energy in the process of transporting themselves to these places which are relatively far from the College.

7.5 Administration Offices

The space that the administration offices are occupying at present were originally constructed to serve as professors' offices. Therefore they are built for privacy and relative independence of the respective units. However, this same condition curtails an effective supervision and the efficient use of the areas for administration headquarters. Communication between the respective officers and subordinates is also affected.

The copying, reproduction and printing area is too small to handle the usual volume of work demanded of that unit.

The Puerto Rico Planning Board have already approved the blueprints for the Administration Offices Building. Its construction date is still uncertain.

7.6 Student Service Areas

One of the most severely affected areas for lack of adequate facilities is the Student Service Area. As a result of a curtailment in the planned physical resources development, several needed facilities are missing and others are in a state of under development.

The recreation and lounge rooms are small for the College's enrollment and need additional facilities.

The coffee shop in operation now is certainly too small. It can efficiently be of service to five hundred people and it is

serving almost three thousand people at present.

There is no large area which the students may use for a general assembly meeting. At present, students meet in the College's open basketball court. Auditorium blueprints are already approved.

The parking area needs to be enlarged. Some students have to park their cars on the side of the road leading to the College. This limits the smooth flow of traffic on that road and increases the probabilities of automobile accidents.

7.7 Summary of Assets and Limitations

1. As can be seen, notwithstanding the lack of facilities the College has attempted to overcome difficulties in this area by providing other plausible alternatives when formal facilities have not been available. Nevertheless, the problems created by lack of facilities affect courses. For example, objectives are not met in as efficient or successful a manner when actual practice through laboratory work is not thoroughly performed. This is especially true in the case of the technical courses where students depend heavily on the practice and applications of the theoretical knowledge they have acquired in classroom.

2. The task of managing the institution is also affected by the lack of adequate administrative headquarters.

3. Students are affected because of the lack of adequate facilities for many needed services and employees find it difficult to perform at maximum efficiency under considerable limitations in space and equipment.

The Bayamón Regional College's Administration has requested the concerned UPR officers to provide the College with the most urgent missing physical facilities within the next four years. It would also hope to fully equip all needy laboratory-classrooms within the same period of time. Meeting these goals, however, would depend on the amount of funds secured for those years.

Chapter VIII. THE LEARNING RESOURCES CENTER

The Learning Resources Center is the administrative unit that integrates print and non-print learning materials with all the necessary equipment and services needed for their utilization. It consequently constitutes the resource bank which supplies the materials, services, and equipment to carry out the College programs and fulfill its academic needs and objectives. The Center, does more than complement curricular demands. It participates actively in the teaching-learning process by teaching courses and through coordination with the faculty, participation in curriculum planning and development, and in making its resources and services an active part of the College and the community.

The Learning Resources Center cooperates closely with the academic communities of the regional colleges of the University of Puerto Rico System and maintains interlibrary cooperation with all other institutions of higher learning in Puerto Rico, particularly in our area. It naturally serves the community of Bayamón as well as the communities of this region.

8.1 Goals

1. To help achieve the objectives of the institution by providing adequate physical facilities, materials, resources, equipment and services relevant to all learning, study and research activities.

2. To provide easy access to information through adequate services and well-organized resources such as books, pamphlets, periodicals, maps, records, films, microfilms, slides, photocopies and other resources relevant to our curricular and extra-curricular activities.
3. To keep resources up to date through the joint efforts of teachers and librarians.
4. To help develop in the students good study habits and self-teaching skills.
5. To instruct, guide, and help students and community members in the effective use and interpretation of the content of materials and resources through direct services, conferences, regular courses, seminars, etc.
6. To cultivate in the students and community members, interest for the recreational and cultural values of our country and of other countries of the world.
7. To cooperate with other public and private institutions and agencies in the exchange of resources and services.

8.2 Organization and Personnel

The Learning Resources Center consists of three departments or divisions and the director's office. Their duties and services are as follows:

Director

The Director, although he does not hold the title of Dean, is responsible to the Director-Dean of the College as are the Dean of Administration, the Dean of Academic Affairs and the Dean of Students.* He participates in the policy and decision making processes of the College through various committees at that level.

At the Learning Resources Center he establishes lines of authority, defines responsibilities, open channels of communication between the different departments of the center and represents the center at all times. He is responsible for making final decisions on policies, procedures, and personnel. Due participation to personnel members in the decision-making process is provided.

For the last months the director has had a librarian to coordinate the selection of materials with the faculty and to help in the planning, development, and evaluation of special projects.

Technical Services

Technical Services is headed by a professional librarian. With the help of a professional librarian and three library assistants, this department orders,

*Associate Deans

receives and processes the learning materials and maintains the card catalog. Access to unprocessed materials is provided by filing temporary cards in the card catalog. This department also distributes to the faculty, administration and to other universities and colleges a bibliography of new processed materials. A copy of this bibliography is available to library users at the card catalog along with a compilation of Spanish-English subject headings and the Library of Congress subject headings.

Reader Services

This department is the liason between users and the services offered. Its services extend beyond the lending of materials in that it must interpret the collection, become acquainted with students, faculty and community needs, develop their interest and awareness, guide them in the better use of the available resources. Thus it participates actively in the learning process.

The Reader Services Department is subdivided into three sections: Reference, Periodicals, and Circulation-Reserve. Assitant librarians in each section, and a secretary help the director. A 4-channel wireless system provides students with

conferences, exercises or music selected by the professors and our staff.

Audio-Visual Services

The Audio-Visual department design and produces graphic materials. It selects, in coordination with the faculty non-print materials and the necessary audio-visual equipment for the Learning Resources Center and provides instruction on the use of materials and equipment. Services include the coordination of all educational activities which use audiovisual media and the promotion of the faculty's use of media.

Personnel

The Learning Resources Center has a total of eighteen full-time employees. Among the full-time personnel, six hold a master's degree (five in library science and one in education with a major in audiovisual), three have a bachelor's and are studying at the University of Puerto Rico Graduate School of Librarianship. Three assistant librarians, two audiovisual technicians, three secretaries, and a part-time assistant librarian with a master's degree in education and broad experience in library services are the other members of the staff. Thirty student-assistants from the Work-Study Program, work 10-15

hours a week. The students help to alleviate the personnel shortage problem and relieve librarians of routine tasks, enabling them to involve themselves in the professional work. The positive attitude of the staff compensate for this shortage of personnel, although they are aware of this limitation as the survey shows: 100% of the Audiovisual personnel and 66.40% of the Reader Services personnel indicate this limitation. We definitely need additional staff for Audiovisual services and to cover Readers Services during the evening hours.

8.3 Resources

The Center occupies an area of 21,600 square feet, (excluding audio-visual facilities) has a seating capacity for 10% of the College's enrollment and can accomodate 56,000 volumes in the shelving area. The area is divided into shelving areas for periodicals, for reference, for reading, for microfilms, and for photocopying machines. Rooms for autotutorial, group study, conferences and seminars, working area and storage. In the near future an additional 60 dry and wet carrels will be added.

Our 26,000 resources cover all areas of knowledge: philosophy, religion, social sciences, linguistics, pure and applied sciences, literature, history, geography, etc. The collection

includes not only academic oriented materials, but also items to meet the recreational interests of the users. The resources are as follows:

| | | |
|----------------------------------|------------|------------|
| 1. Books (volumes) | | 20,000 |
| 2. Periodicals (titles) | | 451 |
| 3. Newspapers (titles) | | 8 |
| 4. Audio-Visual Resources | | |
| a. films | 216 | |
| b. microfilms | 911 units | |
| c. cassettes | 154 | |
| d. slides | 2,618 | |
| e. records | 107 | |
| f. tapes | 96 | |
| g. transparencies (maps - 44) | 1,011 | |
| h. filmstrips | <u>29</u> | |
| Sub-total | 5,142 | 5,142 |
| 5. Miscellaneous Materials | | |
| a. university catalogues | 50 | |
| b. vertical file | <u>438</u> | |
| Sub-total | 488 | <u>488</u> |
| Total | | 26,089 |

Resources projections for 1975:

| | |
|----------------|--------|
| 1. Books | 22,500 |
| 2. Periodicals | 460 |
| 3. Maps | 125 |
| 4. Newspapers | 8 |
| 5. Films | 250 |

The Center makes its library resources available to the public for 71 1/2 hours a week, according to the following schedule:

| | |
|-------------------------|---------------------------|
| Monday through Thursday | 7:30 a. m. to 10:00 p. m. |
| Friday | 7:30 a. m. to 7:00 p. m. |
| Saturday | 8:00 a. m. to 12:00 m. |

The Audiovisual and Technical Services divisions usually follow regular administrative hours although they have often been altered to meet the specific needs of academic departments.

8.4 Activities to Meet Goals

The Center provides services in fulfillment of its own goals and the goals of the College.

A- Services offered

1. Use of reference works, documents, pamphlets, maps, newspapers, periodicals, etc.
2. Circulation of print and non-print materials and equipment.
3. Reserve section for assigned complementary and/or supplementary readings.
4. Wireless communication system.
5. Daily orientation to individuals and/or groups on how and where to find information.
 - a. Guidance in the use of the card catalog and other sources to locate information.
 - b. Guidance in the preparation of bibliographies, research papers, and other reports.

- c. Guidance in study habits.
 - d. Orientation on the services offered by the Center.
6. Indexing of relevant articles in reference sources, newspapers and periodicals.
 7. Photocopying services.
 8. Inter-Library Loans.
 9. Acquisition and preparation of new media.
 10. Lectures on services and use of resources.
 - a. To groups that come to the College
 - b. To other public or private education agencies.
 11. Courses in library use as part of the College's curriculum.
 12. Library services and bibliography orientation (planned with the faculty) to groups of students.

This provides students with the opportunity of familiarizing themselves with the sources and resources which indicate where and how they can obtain the information they need for specific coursework. At the same time, it provides for students development of the skills needed for independent studies and research.

13. Seminars and in-service sessions for faculty and librarians to help them become familiar with, and

make better use of the resources, programs, and services.

14. Tutoring programs in collaboration with the English and Mathematics Departments.
15. Evaluation of the library resources and selection of new media in coordination with the faculty. This provides for the weeding of the collection and for the enrichment of each area.

B- Special Activities and Services

1. Exhibits of materials and objects of historical, artistic, cultural and environmental value.
2. Circulation of works of art in coordination with UNESCO.
3. A special collection of literature for children as a resource for elementary education students is being developed in coordination with the Education Department.
4. Advisory Service to community groups or other interested groups (including members of the legislature) in relation to the founding and development of library services in Puerto Rico.
5. Facilities and resources are available to alumni, students from public undergraduate and graduate schools, and to members of the Bayamón area.

6. Publications.

- a. Cataloged Books- A monthly list of new acquisitions is published and distributed to the faculty and to libraries; a copy at the card catalog is available for the users.
- b. Audio-Visual Materials Catalog- Published once a year.
- c. Contributions have been made to publications of the College and to different professional journals and publications.

7. To achieve professional growth and enrichment, personnel members attend professional meetings, seminars, workshops, conventions, etc. Most members of the Learning Resources Center also belong to one or more professional associations of Puerto Rico, the Caribbean and the United States and are members of committees or boards of such organizations.

C. The Collection

The collection of print and non-print materials is integrated in the general card catalog; however not all audio-visual resources available at the college are centralized in the Learning Resources Center. The Center hopes to integrate and coordinate the resources to facilitate accessibility and avoid duplication of money and efforts.

The Reference collection includes general and subject encyclopedias, dictionaries, bibliographies, indexes to literature, manuals, directories, government documents, pamphlets, etc. Files for location of much searched-for information and for unanswered questions are kept. Photocopying service is heavily used in this Department.

The Periodical Section includes a collection of periodicals, newspaper and/or microfilms of newspapers and journals, indexes to periodicals, and bulletins of information of other universities and colleges. During the academic year of 1972-73 we started the binding of periodicals. We are systematically acquiring back issues of needed periodicals printed or in microfilm.

The non-print collection includes films, slides, transparencies, maps, filmstrips, records, tapes, etc.

To the question of the adequacy of the collection, 100% of the faculty in the Electronics and Technology Instrumentation, Computer Science Technology, Civil Construction Technology, and Education Departments, indicated that the collection was up-to-date, adequate and almost complete. We have to work with the faculty of the Dietetics and Industrial Management Departments

in the evaluation and enrichment of the collection in their areas because 100% of the faculty indicated that it is not adequate.

Books are classified according to the Dewey Decimal System, and periodicals are organized in shelves in alphabetical order by title. The library has open shelves except for materials on reserve, some of which can be borrowed overnight. The vertical file, organized by subject, includes pamphlets, clippings, etc., of local interest and of events not yet recorded in books, is accessible through the reference section.

To better serve students, many of whom have difficulties with English, the Center attempts to acquire Spanish editions of all materials, which meet our selection criterias, with the exception of classic literary works in English. However, since obtaining current and relevant resources in Spanish is a problem, the Learning Resources Center acquires the original English edition as soon as possible.

D. The following services were rendered during the Academic year 1973-74*

*It is not possible to keep exact data because we have open shelves.

| | | |
|--|------------|---------------|
| 1. Circulation | | |
| a. Books | 5,296 | |
| b. Cassettes | <u>963</u> | |
| Subtotal | | 6,259 |
| 2. Reserve | | 6,004 |
| 3. Periodicals | | 1,397 |
| 4. Newspapers | | 1,190 |
| 5. Reference | | 1,965 |
| 6. Inter-library loans (15 outside of P. R.) | | 35 |
| 7. Wireless system | | 3,098 |
| 8. Non-print materials | | |
| a. Posters, slides signs and other graphic productions | 529 | |
| b. Video-cassettes | 279 | |
| c. Duplication of materials | 843 | |
| d. Photographs | 1,163 | |
| e. Projections | 652 | |
| f. Transparencies | 685 | |
| g. Microfilms | 30 | |
| h. Mounting and laminating | 174 | |
| i. Others (repairs, etc) | <u>41</u> | |
| Subtotal | | 4,396 |
| 9. Equipment loans | | 974 |
| 10. Use of Auditorium | | 379 |
| 11. Photocopies (Sept. 1973-July 1974) | | <u>43,636</u> |
| Total | | 69,333 |

8.5 Summary of Learning Resources Center Assets and Limitations

Assets:

1. The Bayamón Regional College has new functional and attractive physical facilities with modern furniture and equipment. Some of the classrooms are equipped with overhead projectors which are also available through the Center. Existing equipment is modern, although scarce, when the student population is taken into consideration. Photocopying and duplication machines are available.
2. The College acknowledges that its resources are the best in the Bayamón area. The general collection at the Learning Resources Center is adequate and limitations are overcome by inter-library loans, film rentals, and by Center's design and production of relevant materials. The general resources are continually evaluated and kept up-to-date.
3. We are satisfied with the use given to our collection and the services rendered to our users as expressed by the faculty and students in the surveys.
4. The integration of all materials in the card catalog and the open shelf system, provides easy access to

the collection. Seminars on the Center's resources have been offered for the benefit of the faculty.

Coordination with the faculty has provided more participation from the departments in the recommendation of materials and in the improvement of services offered to meet their needs. The students have been coming to the Center for individual or group study.

5. There is a personnel shortage in the Center. The service ideal combined with the academic preparation and experience of the staff highly compensates for this limitation, but we cannot rely on their attitudes forever. We need additional staff, especially for Audiovisual services and for evening and Saturday Readers Services.
6. Staff members with faculty status, offer regular courses in addition to their regular work load.
7. There is an open communication and coordination among the directors of the learning resources centers of the regional colleges of the University of Puerto Rico. Communication and collaboration with other colleges and agencies of the Commonwealth is an additional asset. The participation of the Director of the Learning

Resources Center in the Academic Senate, seminars, lectures, professional organizations, etc., has been advantageous as an enrichment of all parties. Many of its petitions have been granted no matter the College's financial problem.

Limitations

1. The personnel shortage, the need for more equipment and materials, and the need for greater centralization of the resources are the more urgent needs faced by the Center. There is only one employee aided by students to provide Saturday and evening services in the Library. The Center relies heavily on students from the Work Study Program in order to provide the existing services. The nature and quantity of the work of the Director's office requires the aid of an assistant in order to meet its responsibilities and goals. There is also need for personnel in the Audio-Visual Department specialized in the technical fields of photography and electronics as well as professionals in television and/or individualized studies.
2. We need more non-print materials and equipment in the Audiovisual Department. The Center is not contributing to the individual development of each

student through the autotutorial programs, since the equipment has not been received. This individualized instruction equipment will be used also for non-traditional studies now on progress. Equipment to prepare a closed-circuit television facility which could be used also for electronics students as laboratory, is also needed.

3. The centralization of resources is incomplete. When completed there will be more flexibility and control of materials, equipment and facilities, and better use of personnel. Better planning would result and problems could be resolved in a systematic manner. Considering the priorities expressed by the faculty, training sessions will continue to be planned and realized.

9.1 Monetary Sources

The Bayamón Regional College's financial resources are made available by means of a budgetary allotment made by the Legislature to the University of Puerto Rico. Once the Legislature has assigned these funds to the University of Puerto Rico Council, The Council on Higher Education by recommendations of the University Board, allots the mentioned financial resources among the sectors composing the system of public higher education in Puerto Rico. The distribution and administration of these funds is delegated by the Council to the Finance Office in the Office of the President. This Finance Office then grants the Administration of Regional Colleges the final distribution and administration of these funds.

The Bayamón Regional College petitions its funds periodically in such a manner that it can meet the financial obligations incurred-upon in the process of performing its duties as an institution of higher learning. The offices of the College which are responsible for all tasks related to these petitions file monthly statements to the Administration of Regional Colleges on the balance of funds assigned to the College.

9.2 Allocation of Funds

In detail, the major administrative unit dealing with the College's petition and use of funds is the Office of Administrative Affairs. This office is directed by the Associate Dean for Administrative Affairs who coordinates and supervises all activities related to the College's budget, finances, collections, payments, purchases and accounting, as well as

those activities related to personnel and property. The Associate Dean also keeps a complete system of records of everything related to the areas mentioned. These records must be in accordance with the dispositions of the Office of the Comptroller of the Government of Puerto Rico and with those of the Central Accounting Office of the University of Puerto Rico. Both organisms supervise the financial activities of our Institution.

The administrative unit mentioned i. e., the Office of Administrative Affairs, is further subdivided into offices, most of which are directly involved with the College's financial sector. The activities of the latter, as well as the products of those activities are explained as follows:

The budget of the Institution is the document which (financially) expresses in terms of dollars and cents the programs offered and their projections for the future. It indicates, in detail, the monetary resources which the College needs in order to implement all of the academic offering of the school year. The preparation of this document is carried out in the College's Office of the Budget, which naturally falls under the supervision of the Associate Dean for Administrative Affairs. The functions of the officer directing the Office of the Budget are, among others, the following:

1. The break down of budgetary petitions submitted by departments in order of priorities and to advise departments as to means by which they may achieve better use

of resources.

2. To gather all pertinent data for use in the computation of the budget estimate of the College.
3. To prepare the budgetary petitions of the College in consultation with the Dean and Director and the Associate Dean for Administrative Affairs.
4. To analyze departments' petitions for additional funds and make the respective recommendations to the Associate Dean and to the Dean and Director.
5. To prepare all requests for budgetary modifications that the College submits to the Administration of Regional Colleges.
6. To prepare a monthly balance statement reflecting the course of budgetary assignments.
7. To keep both the Associate Dean and the Dean and Director informed as to the status of resources utilization.
8. To carry out the internal control of all budget allocations.
9. To analyze all transfer voucher requests of funds, which may be submitted to the Office of the Budget at the Administration of Regional Colleges level for consideration and approval.

Once the budget document is prepared, it is revised by the Dean and Director of the College, who submits it to the Dean of Administrative Affairs of the Administration of Regional Colleges. The College's budget

then becomes a part of the total budget of the Regional Colleges System. The latter is submitted to the President of the University of Puerto Rico for its revision and presentation to the Council on Higher Education for final approval.

The College has, in addition, received directly from the Department of Health, Education and Welfare of the United States an average of five thousand dollars per year during previous years for use by the Learning Resources Center. There is no guarantee; however, that it will receive these funds on a regular basis.

9.3 Mechanics of Spending

The duties of the Accounting Office are based on regulations found in the Accounting Manual of the Central Accounting Office of the University of Puerto Rico. The manual was prepared by the Finance Director of the University of Puerto Rico in accordance with general principles and regulations and accounting practices in effect in both the United States and Puerto Rico. This manual was submitted to the Council on Higher Education for its approval. It is revised and amended through the years in an attempt to keep it up to date in relation to accounting procedures and practices in effect and in order to protect the interests of the University System.

The Accounting Office of the College is composed of an accounting officer and an officer whose responsibilities are similar to those of an internal auditor. This office has, among others, the following responsibilities:

1. To closely examine all fiscal documents or contracts in order to determine whether they are official and valid in accordance with University Law.
2. To verify that all fiscal documents and contracts are signed by persons legally authorized to do so.
3. To verify that purchases or purchase orders and/or services are not in conflict with the established norms and regulations.
4. To verify that there are no mathematical errors in purchase orders or contracts.
5. To maintain a detailed record of all disbursements and acquired financial obligations charged to the budget assignment and to report to the Administration of Regional Colleges on the utilization of funds.
6. To authorize purchases and disbursements to suppliers or contractors whenever funds are available and suppliers and contractors have legal right to them.
7. To maintain a system of payments such that the credit of the College may remain in good standing.
8. To maintain all documents and books up to date and in order and to make them available for inspection by the internal auditors of the University of Puerto Rico, as well as by the Comptroller of Puerto Rico.
9. To inform and advise the Associate Dean on the state

of all accounts and on other aspects related to utilization of the assigned funds.

In addition to this, the Accounting Office has the assistance of two more offices: The Bursar's Office and the Payment's Office.

The Bursar's Office has the responsibility of collecting and depositing all revenues that the College receives every day. It keeps in its records copies of all official receipts given, together with all bank deposit slips and with daily collection reports. It also keeps a record of all income received by mail. The bursar must, in addition, keep the accounting officer informed about the enterprises or individuals who have debts with the College and must submit a daily report of collections made and deposited in the University of Puerto Rico account to the Central Accounting Office of the University of Puerto Rico.

The Payment's Office is the one which makes final all disbursements authorized by the accounting officer.

The Bayamón Regional College Personnel Office has a number of responsibilities which are obviously related to the financial sector of the College. As part of the most directly related activities, the Personnel Office must:

1. Prepare all necessary documents for staff appointments after duly verifying that all requirements for positions are met and must submit them to the Personnel Office of the Administration of Regional Colleges or to the Personnel Office of the Commonwealth of Puerto Rico

- for their pertinent processing and approval.
2. Keep personnel informed of their benefits.
 3. Carry a daily attendance record, as well as a record of all authorized vacations and absences.
 4. Inform the payroll section of all pertinent deductions due for unauthorized absences that exceed the number of days accumulated toward sick leave and/or vacation.
 5. Implement a vacation plan approved by personnel supervisors.
 6. Refer to the State Insurance Fund any accidents employees may come upon and give follow-up study to the case.
 7. Check and verify that all checks are adequately and accurately issued in order to keep a control of payments made.
 8. Confirm and verify the eligibility of all employees for Christmas bonuses.
 9. Process all application forms and/or changes in employees' health insurance plans.

In accordance with the dispositions of the University of Puerto Rico Supply Regulations, the Purchasing Office was created with the objective of providing the Bayamón Regional College with an economic, effective and centralized system for the purchasing and supplying of materials, equipment, and non-personnel services. This system constitutes, in itself, a more effective monetary control measure, by reducing

the cost of materials, supplies and equipment through better practices in purchases and better utilization of lower prices in the market.

The Purchasing Office has the assistance of an auxiliary body: the Auction Board, which aids in determining the best possible utilization of resources through its participation in auction purchases.

9.4 Budgetary Control

There are basically two means by which to control the budget assigned to the Bayamón Regional College. First of all, the budget is divided into two internal accounts: Personnel Services and Non-Personnel Services, both of which are in turn divided into sub-accounts. Each of these accounts is assigned a portion of the budget on the basis of the experience of previous years. This allows control of the budget to such an extent that it is possible to determine with relative accuracy the total amount of funds that these entries will require. The estimates for each entry thus helps the College to avoid incurring in excessive or unnecessary expenditures.

The second control measure is the monthly balances statement which includes the amount of funds assigned, actual expenditures, the amount of funds bound by appointment or contract and the unused balance of each internal sub-account at the date of preparation of the balance statement. This statement enables the College to determine how much each entry is spending and the rate at which it is spent. This enables the College to make the necessary adjustments which will take care of those areas most affected by variations in the economy and by unexpected needs and expenses.

In addition to these basic control measures, every requisition that is submitted is revised and studied in order to limit the acquisition of equipment, services and materials to that which is exclusively necessary.

Financial activities and records are also subject to the inspection by the University of Puerto Rico and the Office of the Puerto Rico Commonwealth Comptroller's auditors.

Situations in which financial difficulties arise and budget cuts must be made require that an order of priorities be established. Obviously, the cuts made would be in the financial areas of less urgency such as traveling expenses, representation expenses, etc. Operation and maintenance would have priority but the Institution would also try to reduce these costs. This is, in effect, the action that the Bayamón Regional College has taken in its attempts to cope with its financial difficulties.

9.5 The College's Financial Situation: Assets and Limitation

1. In general, the College feels that the organization it has in relation to the obtention and spending of funds is adequate. It believes that the different offices involved in activities related to the budget work efficiently and that the difficulties encountered in the area of finances most certainly do not result from organization flaws. It finds that the main flaw, lack of funds, is a consequence of the financial situation of the University of Puerto Rico as a whole. A brief self-analysis of the financial situation of the Bayamón Regional College and the impact that

the latter has received from that of the University of Puerto Rico follows

2. One of the basic activities found as a part of the budgetary process in an institution's estimate for income. This estimate, as has been discovered, must necessarily be based on the number of students that an institution is required to admit and an analysis of economic fluctuations of non personnel services. Acting upon the foregoing basis, the number of students admitted to the Bayamón Regional College during Fiscal Year 1971-72 was 513. This was the first year of operating of the College and it had, at the time, a budget of \$974, 440 (\$1899.49 per student). The College's newly finished buildings and its other facilities proved more than adequate and the budget was also considered adequate.

3. By Fiscal Year 1972-73 the College's enrollment reflected a total of 1, 661 students. The College's buildings were still in excellent conditions as far as built-in equipment was concerned. There was a personnel shortage in the Maintenance Office, but the situation was well taken care off as personnel members worked extra hours, etc, to overcome this limitation. The operating budget was \$1, 618, 430 (\$974.37 per student). A few austerity measures were taken and the financial resources were then considered adequate.

4. It was not until Fiscal Year 1973-74 that the College began experiencing difficulties in diverse areas. Time, for example, began to take its toll on equipment. Years of use necessarily brought about equipment break-downs. Some warranties on equipment were no longer valid.

The total student enrollment of the College increased to 2,520 and the operating budget was \$2,290,657 (\$908.99 per student). Undoubtedly then, the increase in student population, an operating budget proportionately reduced by the main distributing source and problems with equipment, etc., all led to the creation of a difficult financial situation. Difficulties were heightened by the pressure of these circumstances as the year came to an end and in Fiscal Year 1974-75 demands for service from the College's greatly increased student population (2,829), coupled with the same operating budget (\$908.99 per student) in existence during Fiscal Year 1973-74, produced a financial condition indicative of more critical problems for the College.

5. Notwithstanding the austere financial situation during Fiscal Years 1972-73 and 1973-74 in which the College ended operating with a deficit, all of the College's needs were nevertheless met, to the best possible, if not completely. The College's main goals were met but they were met at the cost of numerous sacrifices. Administrative activities, for example, were overloaded. Many administrative personnel members found themselves performing highly demanding activities other than those demanded by their positions. The faculty was also overburned with heavy teaching loads and endeavors. Personnel in the Maintenance Office were unable to cope with the pressure of increasing request for service on equipment no longer in warranty.

6. Added to the problem of sacrifices on the part of the staff, other problems became evident. Higher maintenance costs on service contracts began depleting the programmed financial resources. Unexpected energy cost increases also began claiming a higher share of the funds. Furthermore, difficulties which seemed small in their initial stage have built up and it is now that the College is feeling the full burden of all of these factors. The budget for Fiscal Year 1974-75, in addition to all the aforementioned difficulties, must also absorb the deficit of previous years. Added to the burden of difficulties, one finds that the Council on Higher Education has instructed the College that although no additional funds are to be made available to it now nor in the near future it must nevertheless end this year without a deficit.

9.6 Projections

The College's financial situation is far from adequate but although the College finds itself in the midst of serious financial difficulties, it nevertheless feels satisfied with its performance. It believes that it has faced and not evaded the challenges posed by difficulties and that it has tackled problems in the most realistic and effective manner. A glance at the budget of previous years and a glance at the programs and services that the College has been offering attests to that. It does at the same time acknowledge; however, that notwithstanding the competence, high morale, and strong "esprit de corps" displayed by its staff, the end results may be a lowering in the quality of the College's performance if no immediate measures are taken to alleviate the Institution's financial difficulties.

A possible means by which to overcome these difficulties and comply with the financial cutbacks ordered by the Council on Higher Education is to begin implementing a series of reductions. If there is absolutely no improvement in the area of finances, the College will find itself under the obligation to: reduce the total yearly input of freshmen; reduce academic offerings, notwithstanding the geometrical increase in demand; do without some personnel who has been hired on service and temporary contracts.

These reductions would obviously be in direct contrast to the College's policy of offering more services rather than fewer to its community. The College hopes that it will not be forced to take such a drastic step. Developments in the financial sector of the University of Puerto Rico System will finally determine what will be the outcome. A positive action on the part of the College will nevertheless be taken with the strong and courageous spirit which has always distinguished it.

Chapter X. THE BAYAMON REGIONAL COLLEGE
AND THE COMMUNITY

10.1 Attitudes of One and the Other

The Bayamón Regional College strives to create a stimulating environment and to shape the College to meet the needs of those it serves. The College in a democratic way will assist in promoting educational experiences not only for students in their teen years but for the community as well.

The geographical area served by the College is definitely an industrial area within a larger agricultural setting which has changed rapidly during the last twenty years. The city of Bayamón proper is the fastest growing urban community in Puerto Rico. It is now close to a population of 200,000 and is considered a part of the metropolitan area which has a population of about 1,000,000.

The College has become an integral part of the community since it was started in 1970. The Municipal Government made the establishment of the College possible by donating to the University of Puerto Rico a 73 acre lot at a cost of \$1,000,000. Civic and cultural organizations of the community helped in shaping the attitudes of the citizenry to receive the College with open arms and warm hearts.

The College, in reciprocity for the help it has received from the community, has opened most of the campus facilities without charge for use by responsible organizations and most of the College's

curriculums are designed to help fill the needs of the community. As it is said before, the industrial activities are the main economic bases for the community. Thus, the academic offers are mainly in electronics, instrumentation, computers, secretarial sciences, industrial technology, business administration and so forth.

Nearby communities in the northern area are also in industrial expansion. But, those communities in the central region of the Island are still dedicated to agricultural production. It has been a government policy to develop some industries in the agricultural communities and when traveling thru these areas, factories can be seen in remote regions. However, the College is not serving any needs for agriculture specifically. This task has been left to the Mayaguez Campus of the University of Puerto Rico and its Faculty of Agriculture. The facilities of that Campus are more than enough for the agricultural needs of Puerto Rico at this moment and for a foreseeable future.

The attitudes of the College and the attitudes of the community can be resumed in one word: cooperation. The community was instrumental in the establishment of the College. The College in return is and will be instrumental in the development of the community.

10.2 Relations

The College is proud to claim that its relations with the community are the best. There is ample participation of the various organizations in campus activities. The students, their parents and the citizens

are seen together in cultural and social activities. Citizens participate as members of the various committees that work together with the administration and faculty. A brief description of some committees and their activities follows:

The Alumni Association

The Bayamón Regional College Alumni Association was created shortly after the first graduation in 1973. The initiative was taken by the outgoing President of the Student Council and was warmly received by the graduating class. (It is interesting to note that some of these students who transferred to other University of Puerto Rico campuses will graduate next June from their bachelor's degree programs).

The Association has its own officers and its primary purpose is to provide a link between the College and its graduates. It serves as feedback of the effectiveness of the preparation the students carry over to the four year colleges and the efficiency displayed by the graduates in the associate degree programs when they go to work.

The College is very proud of its alumni. Information brought back by the Alumni Association shows that the graduates are doing very well in other campuses and performing excellently in their jobs. The Association also tells of the love link existing between the College and the graduates: they never forget their short stay at the College.

Committee of Municipal Heads

This Committee meets with the Director-Dean of the College to exchange information on the needs of each of the eleven communities comprising the area served by the College. The Mayor of Bayamón heads the Committee. Occasionally the College sends the Mayors news about matters of importance to all.

The Committee was organized in 1974 and is still in its initial stages, but it has served its purpose of bringing all the municipal heads together for future activities in support of the College in its expansion.

The College's Planning and Advisory Committee

This Committee is composed of industrial and business leaders and meets monthly with the Director-Dean to advise him in various aspects. The Committee will help in the planning of future physical and programmatic expansion. It will help in the introduction of new programs and the revision of the existing ones. It will develop activities to bring the College and the community together. It will help in maintaining a close relationship of the College and the governmental authorities. In occasions it will also lobby for the College in the legislature and other agencies.

The Advisory Committee is probably one of the most important committees as it is a positive feedback of what is happening in the world outside of academic. The College should respond to the

realities and needs information from employers and citizens.

The Dietetics Advisory Committee

This Committee was organized before the Associate Degree Program in Dietetics was started in 1971. It helped in the design of the program and has kept a close watch since then. Next year the program will be evaluated for accreditation. The Committee will be a valuable help in revising what has been done to meet the requirements of the American Dietetics Association.

The Parents Committee

This Committee was organized in 1974 with the purpose of receiving the benefit of the feedback of the parents and citizens of each community served by the College. The Committee is composed of three members from each city for a total of 33 members. The College occasionally sends news to the members so that they can inform other citizens and parents. The Parents Committee will help in orientation of prospective students as they will receive information on the existing programs and the new one which might be introduced.

The Folk Arts and Folk Music Festival

The geographical area served by the College is prolific in folk arts and folk music. The College together with the various committees has decided to sponsor an annual festival which features popular arts and folk music. The first one was held

in December 1974 with an attendance of over 5,000 persons in an eight hour period. The festival will be institutionalized and will be held for a weekend every year in December. This will provide for a wider participation of all the communities.

The festival held last December was sponsored by the Institute of Puertorican Culture, the Municipal Government of Bayamón and the College. Other municipalities also helped as well as the students and faculty. In the future wider participation of all interested groups and organizations will be encouraged.

Other Relations with the Community

The community activities sponsored by civic and cultural organizations are attended by faculty and administration members who are either components of said organizations or are invited by them. Service clubs such as: the Bayamón Rotary Club, the Lions Club, the Exchange Club and others have sponsored programs for students and the College.

Participation of faculty and students in cultural activities of the community is encouraged. Faculty and administration members often represent the College by delegation in numerous affairs of the community. Participation is also encouraged in activities sponsored by the local schools, private institutions of higher education, governmental agencies and non-profit organizations somehow related to the College's functions.

The relations with the community and its components are part of the College's life. The degree of support the community shows for the College will eventually determine how far can the College go.

As of today it can be asserted that the College and the community are fused working for the benefit of all.

Chapter XI. SUMMARY OF PRESENT SITUATION
AND FUTURE PLANS

After having looked at itself via this comprehensive self study, the College has had the opportunity to assess its past and present situation. This assessment has unveiled the existence of a number of institutional assets and limitations. Most of its limitations are concomitant to the devastating shortage of funds being experienced by the whole University of Puerto Rico System. However, the impact of such scarcity is more severe in a young institution that has not yet completely climbed the upward development slope that leads to a stable operational plateau. Being caught short in the middle of this process, its "ascension to the peak" could be somehow delayed, unless additional economic resources are made available to the institution. This situation, however, has not hindered its determination to succeed. It could be thus concluded that, in spite of the existing limitations, the College has, on the average, met its objectives adequately. The findings of this self study should lead us, in the years to come, towards the enhancement of all assets and the elimination of the stated limitations. To these effects, plans for the future include, among others:

1. The establishment of new technical programs in Audiovisual, Real Estate, Recreation, Notarial and Judicial fields.
2. The addition of new transfer programs in Pre-Law and Physical Education.

3. The offering of new special programs in Industrial Management, Secretarial Sciences, and Computer Technology.
4. The establishment of a massive program for the development of instructional modules to cover all concerned program areas.
5. The intensive use of multimedia to convey instruction to those citizens that are unable to attend college regularly.
6. An intensification of the already initiated "community involvement" program.
7. Subject to the availability of funds, the completion of the physical resources takes a high priority. These will include: the construction and equipping of needed instructional labs; the enlargement of Learning Resources Center holdings; the construction of the Student Center and Physical Education facilities, such as a gym and the track and field park; the Auditorium; the official administrative offices; the parking lot, etc.

The availability of these facilities would permit enrollment to reach around 5,000 students by 1980. Right now the physical space to be available when building #3 is inaugurated, corresponds to an enrollment of about 3,000 students. The lack of teaching, support personnel and equipment resources, however, does not warrant such enrollment.

The successful implementation of these and other similar plans, should prove beneficial to our institution, in its perennial search for academic excellence, to the enhancement of education in the island of Puerto Rico.

APPENDIX: VERTICAL FILE

Documents available in the vertical file.
Page numbers indicate, where appropriate,
the Self-Study page where the original reference
to each document was made or implied.
(E = English version; S = Spanish version)

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