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ABSTRACT

A seven-year master plan for Barber-Scotia College, which was needed to substantiate requests for federal grants for Strengthening Developing Institutions (SDIP) under the Title III program, is described. An outline for developing a long-range plan is also presented that features: college role, admission policies, enrollment, student recruitment, retention policies, degree and nondegree programs, summer school, student development center, student activities, research, public service, federal funds, physical facilities, computer system, academic advising, administrative organization, faculty development, student financial aid, expenditures, and evaluation activities. The following offices within Barber-Scotia provided reports to the Title III program coordinator: academic affairs, management information system/institutional research (MIS/IR), Center for Development and Resources, administrative improvements, placement and counseling, and student affairs. For each activity, attention was directed to the problem area and the rationale for requesting support, objectives, implementation strategies and activities, required resources, cooperative arrangements, and performance evaluation measures. Portions of a proposal to improve the functions of the MIS/IR Office are presented that consider the proposed functions of the office (e.g., policy formation and planning support), the human resources needed, and costs involved. Specific types of statistics to be collected are identified, along with proposed annual activities and performance evaluation measures for each activity. (SW)

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MIS/TIS/IR SEVEN-YEAR, LONG-RANGE PLAN:

Developed to Substantiate a
Request for Title III SDIP Funds

by

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INSTITUTE ON DESEGREGATION

ERIC CLEARINGHOUSE ON HIGHER EDUCATION/INSTITUTE ON DESEGREGATION
COOPERATIVE PROJECT

This paper has been identified by a joint project of The Institute on Desegregation at North Carolina Central University and ERIC Clearinghouse on Higher Education at George Washington University. The purposes of this project are to identify, collect, and make available literature concerned with

- (1) the problems of minority students in higher education in general and
- (2) the problems of desegregation in historically black colleges and universities in particular.

New published and unpublished materials are reviewed and recommended by participants of the Institute on Desegregation's Interinstitutional Research Group (ID/IRG) for acquisition by ERIC Clearinghouse on Higher Education. An annual bibliography of this material will be published under the names of ERIC and the Institute.

Various types of materials are being solicited, especially unpublished and unindexed materials, as well as publications, produced by faculty and staff members. Included in these may be unpublished faculty studies, institutional research studies, master's theses, monographs, papers presented at professional meetings, articles from general and scholarly periodicals, and conference and workshop proceedings not covered by ERIC Clearinghouse on Higher Education.

To be acceptable for inclusion in the ERIC system, the materials submitted for evaluation must be (1) reproducible, (2) of sufficient substance to be of value to practitioners, researchers, scholars, and others, and (3) not repetitive of materials that are already currently available.

If additional information is needed about this cooperative project or the criteria for selection of materials, please write or call the Director of the Institute on Desegregation at 919/683-6433, North Carolina Central University, Durham, North Carolina 27707.

FOREWORD

Every productive task requires a well-written master plan. A written master plan provides the degree of continuity and crystalizes thinking. This document outlines a methodology for developing a plan and presents a sample of a plan.

The financial well-being of most colleges and universities has been affected by the economic conditions of recent years. Economically, inflation is expected to continue, thereby, requiring institutions to perform the twin role of attracting more revenue and maintaining more cost-efficient operations. Thus, institutions of higher education which cannot perform these roles in this decade may face the problem of a considerable amount of reduced services or simply close their doors. Therefore, colleges and universities are beginning to take advantage of project and research grants to substantiate their financial resources.

The first stage in the development of a plan is the definition of goals and objectives. Objectives must be measurable, realistic, obtainable, and written. The second stage consists of a list of tasks to perform and specifying how to reach goals. The costs for each objective (in terms of money, human resources, time, etc.) must be specified. We all need some milestones for every plan. Every plan must be put on the calendar. There is a need to allocate time, resources, and cost to a plan.

This project was financially supported by a federal grant for Strengthening Developing Institutions under Title III. The author welcomes your constructive suggestions and corrections.

Concord, North Carolina
December, 1981

Amos Olagunju
Director

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1.

DEVELOPING AN INITIAL LONG-RANGE PLAN

1.1 Problem Statement

Barber-Scotia College is required to design a long-range plan over a seven-year period to furnish a forum for substantiating requests for federal grants for Strengthening Developing Institutions under the Title III program. The Title III program directors will work towards the fulfillment of the plan's recommendation in order to achieve the following and other objectives:

- (a) To improve present offerings and services of the college
- (b) To establish plans and standards which will be utilized in future program and service developments for the population of the immediate service area and the entire state of North Carolina
- (c) To define evaluation criteria and approaches which will be used to measure the effectiveness of services and programs
- (d) To continue the involvement of College employees in the implementation of long-range planning recommendations
- (e) To foster the climate necessary for accomplishing overall goals and the mission of Barber-Scotia College
- (f) To strengthen an awareness of the need for planning among members of the faculty, staff, and administration

1.2 Suggested Outline for the Long-Range Plan

In order to provide continuity and direction in the planning endeavor, the first step would be to develop an outline for the planning document as follows:

1.2.1 Institutional Component

- A. History of Barber-Scotia College
- B. Mission and Role of the College
 - 1. State of Mission
 - 2. Goals
 - 3. Objectives
- C. Admission Policies
- D. Special Program Admission Policies (if any)
- E. Enrollment
 - 1. Historical
 - 2. Projected
- F. Service Area
 - 1. Present
 - 2. Projected Changes
- G. Recruitment of Students
- H. Housing
 - 1. Trends and Projections
 - 2. Policies
- I. Retention Policies

1.2.2 Program and Activity Component

- A. Degree Programs
 - 1. Existing
 - 2. New or Revised Programs
- B. Non-Degree Programs
 - 1. Existing
 - 2. New or Revised Programs
- C. Non-Credit Programs
 - 1. Existing
 - 2. New or Revised Programs
 - 3. Policies

D. Off-Campus Courses or Programs

1. Existing
2. Future Courses and Programs
3. Policies

E. Workshops and Seminars

1. Existing
2. New or Revised Programs
3. Policies

F. Evening School

1. Future Programs and/or Courses
2. Policies for Future

G. Summer School

1. Future Offerings
2. Policies

H. Graduate Programs

1. Future Programs, Offerings, and/or Courses
2. Administration and Organization
3. Policies

I. Cooperative Programs

J. Library

K. Instructional Service Center

L. Student Development Center

1. Counseling
2. Testing
3. Placement

M. Student Related Activities

1. Discipline
2. Fraternities and Sororities
3. Student Activities

N. Research

O. Public Service

P. Federal Funds

Q. Athletics

1.2.3 Organization and Support Services Component

A. Physical Facilities

1. Administration Building--Existing Situation and Future Needs
2. Student Housing--Existing Situation and Future Needs
3. Physical Plant--Existing Situation and Future Needs
4. Student Activity--Existing Situation and Future Needs
5. Food Service--Existing Situation and Future Needs
6. Campus Plan
7. Landscaping
8. Care of Campus Grounds
9. Maintenance of Facilities
10. Othe Auxiliary Needs (health, bookstore, etc.)
11. Use of Facilities by Community
12. Parking

B. Land Management and Future Land Needs

C. Computer System

1. Present and Future Hardware Needs
2. Software and Information System

D. Academic Advising

E. Academic Committee Structure

F. Academic Organization

G. Administrative Organization

H. Faculty Development

I. Fringe Benefits

J. Student Aid

1. Historical Trends and Projections
2. Fund Sources
3. Aid Policy

K. Role of Advisory Committees Established for Institutional and/or Individual Program Support

1.2.4 Resource Component

A. Breakdown of Budgets for Each Year (federal funds only)

B. Scholarships

C. Salaries

1. Faculty and Administration
2. Classified Personnel

D. Proof of Self-Sufficiency after seven years

1. Private Funds
2. Alumni Cultivation
3. Room and Board
4. Student Fees
5. State Appropriations
6. Athletic Income
7. Other Income

1.2.5 Evaluation Component

A. Planning

B. Self-Evaluation

1. Self-Studies
2. Programs of Staff and Faculty Evaluation
3. Use of Outside Consultants

C. Outside Evaluation

1. Professional Accrediting Agencies
2. Others

D. Evaluation of Students

1. Grading
2. Standardized Tests
3. Other Methods

1.3 Approach to the Development of the College Plan

In order to coordinate the efforts involved in developing this plan, committees were formed. The Title III Program directors were appointed as the chairmen for the committees since they would be directly responsible for monitoring progress reports and coordinating the Title III activities in the future. The offices included in the Title III funding request were:

- (1) Academic Affairs
- (2) MIS/IR
- (3) Center for Development and Resources
- (4) Administrative Improvements
- (5) Placement and Counseling
- (6) Student Affairs

Each Title III Program director was required to supply the following information to the Title III Program's coordinator:

(1) Program Background and Needs

Rationale for Requesting Support. The problem being addressed, the related institutional goal(s), and SDIP priority must be identified.

a. Indicate the Understanding of Problem

- What is the problem?
- What are the causes of the problem?
- What are the consequences of the problem?
- What data are available to substantiate the problem?

b. Indicate an Assessment of Need and Proposed Solution

- What has been done in this area?
- How can previous experiences be useful?
- What do we propose to do that is different?
- Why is the project needed at this time?

(2) Specific Objectives

Activity objectives are vehicles for the implementation of the related institutional goals. Each objective should be measurable and outcome oriented.

a. An objective is a specific task in the process for completing the goals of a proposed project.

b. Objective must address:

- What treatment is to be provided?
- What and how many are in the target population?
- What is the completion date?
- How are the projected outcomes of this assistance evaluated?
- Is there an adequate means of evaluation?

(3) Implementation Strategies/Activities

Describe the strategies/activities and procedures the institution plans to implement in order to achieve the objectives by answering these questions: What? How? Who? When?

(4) Resources Required

Describe the resources required to implement the proposed activity.

- a. Human resources and salaries
- b. Equipments and their costs
- c. Office supplies, and so on

(5) Cooperative Arrangement(s)

Describe each cooperative arrangement in terms of the tasks to be performed and its contribution to achieving the activity objective(s) and institutional goal(s).

INCLUDE CONSORTIUM PARTICIPATION, i.e., SSI, CORT, etc.

A cooperative arrangement is one or more working relationships between a developing institution and other institutions of higher education, agencies, organizations, or business entities to assist the developing institution in implementing activities under a Title III grant.

(6) Performance Evaluation Measures

- a. Provide a statement indicating who will have the main responsibility within the activity for formative and summative evaluation, both internal and external, to assess effectiveness, i.e. objective attainment. Include the role of assisting agencies in the evaluation process.
- b. Describe the evaluation (periodic internal assessment) to be undertaken during the activity to obtain the feedback necessary to correct shortcomings, to revise the objective(s) or, to select alternative objectives.
- c. Describe the evaluation to be undertaken at the end of the activity to determine whether objectives have been met.

In subsequent sections, we will consider a seven-year, long-range plan developed to substantiate a request for Title III SDIP funds.

2. MIS/TIS/IR Office SDIP Grant Proposal

The subsequent sections presents a sample of a proposal developed to substantiate a request for funds to establish new operating functions and improve the existing ones through the roles of the MIS/IR Office at Barber-Scotia College.

The MIS/IR Office at the College presently conceives its roles as being, not one of policy formulation, but of assisting policy makers to come quickly and assuredly to their conclusions. As such, the MIS/IR Office objectives cannot be developed in isolation from the objectives of the other offices at the College. For this reason, College administrators were interviewed to identify the future needs of the College in the areas of management information systems and program evaluation.

Summarized in subsequent sections are the proposed functions of the MIS/IR Office, the human resources required to fulfill the needs, and costs involved.

3. Problem Statement and Aims

3.1 MIS/IR Functions

The primary aim of an ideal office of MIS/TIS and IR is to provide the up-to-the minute data, information, reports and analyses of data and reports to the Office of the President, the Board of Trustees, and other officials or committees charged with establishing or implementing college policies. In order to satisfy the requirements of our goals, the following objectives are desirable:

1. To provide, via the Office of the President, data and information requested of the College by the Board of Trustees and the accrediting agencies.
2. To assist college policy makers in the identification, development, and use of technologies which have college administrative applications. The Office will be responsible for recommending those designs of the operating criteria of college information systems which are required for the fulfillment of its primary function.
3. To provide its services to other college groups and individuals as its information retrieval and analytical capabilities permit, provided that there is no hinderance to the fulfillment of its primary aim.
4. To bear the responsibility of the college policy makers in anticipating and identifying informational needs of the College, urging the development of the necessary capability to retrieve the information, and formulating suggested solutions.
5. To undertake, upon direction of the President, self-studies, planning programs, other duties and responsibilities which are consistent with its primary function and its capabilities. In those cases where the demand for services provided by the Office exceed its operational capabilities, the assessment and assignment of priorities will be the responsibility of the President.
6. To assist in seeking and developing new and innovative academic programs, and to provide the cost-benefit analysis of various academic programs.

7. To help seek alternative financial sources for the College by responding to various advertisement on financial aid and motivating the existing faculty and staff into research work. The Office will be engaged in a number of financially-sponsored projects each year.

The requirements above suggest that the MIS/IR Office should operate as an applied research team since the Office will support diverse management activities. At the present time, such an Office with diverse operating functions does not exist at the College because the Office is minimally staffed with a director, an institutional researcher, and a secretary. Moreover, the only PDP 11/34 computer equipment with only eight (8) terminals and a line printer limits the amount of technical services that can be provided. We will now review college management activities and the OIR staff required to support the college.

3.2 College Management Analytical Support

College Management may be categorized into three (3) main areas namely, academic, physical, and fiscal. Hence, there is a need for analysts expert in information systems and statistics who will be responsible for projects which are primarily within these spheres.

Academic policy formulation and planning are the keystones to college management. The tasks of an academic planning analyst include assisting policy and planning committees, working with departments and faculty which seek the help of a professional planner, as well as assisting the director of the IR Office and other IR Office analysts with interface aspects of projects.

A physical analyst is primarily responsible for space planning studies, space facilities, equipment inventory, and utilization studies. He is responsible for developing methodologies for these studies and assisting with the improvement of the informational systems needed for space management.

The management of non-capital resources is the responsibility of the fiscal analyst. This analyst relates to policy formulation and planning committees on fiscal and budgetary matters. He is involved in the development of methodologies and pilot studies of academic program costs, internal pricing of services, implementation of planning, programming, budgeting systems, as well as assist with development of the necessary informational systems to support management needs for resource allocation information.

The statistician supplies the other analysts, management, and other internal and external agencies with statistical information of the College and other subjects related to higher education. This analyst is responsible for the consistency of data element definitions used with the OIR and as far as possible within the College.

The responsibility of an information systems analyst is to assist in coordinating the development of the college information systems. Since college administrators view the OIR as a management information system, the Office has a vital interest in presenting the design and the operating criteria for all college information systems to meet the needs for information requests. Besides being an information expert, this analyst will be sensitive to the concerns of the operating departments.

Working with other analysts, the information systems analyst will encourage the adoption of college information system rules and procedures with respect to access, reading and writing on files, systems design, and maintenance which ensure that needs of all users including senior management are considered explicitly. Because of OIR interest in management of information, this analyst will be concerned with the compatibility and integrity of data from all offices and systems.

The need for an integrated information system will become more apparent as we adopt more of the newer management tools and techniques to solve resource allocation problems. The use of models to simulate college operations, and enrollment projections are two good examples. Even the simplest models need accurate, timely, and comparable information as input for model runs and to set system parameters. The information systems analysts will coordinate the model development work of the analysts and thus be concerned with both the interface and technical problems and modeling.

The OIR and Planning Director has the dual role of managing the Office and being the contact with the President, senior college officers, and policy formulators. Working with other college administrators, he decides the extent of the OIR involvement in specific college management areas.

The extent of staffing support in the IR/Planning Office is a function of the extent and the speed with which the College can undertake projects. Again, we stress that the OIR is presently minimally staffed by a director, one institutional researcher, and a secretary. Since the College now wishes to expand its commitment in the Planning/Institutional Research area, staffing priority is a function of the nature and the extent of the projects to be undertaken in the next seven (7) years. In more broader terms, we will now present the proposed specific objectives of the OIR over the seven-year grant period.

3.3 OIR Specific Objectives over the Grant Period

The OIR shall be responsible for obtaining data on a continuing basis and for analyzing subjects pertaining to college policy, such as:

1. Basic College Statistics including:
 - a. student registration and academic performance
 - b. college faculty and support staff
 - c. operation and capital expenditures.
 - d. teaching loads, class size, faculty/student ratio, student classroom contact hours, etc.
 - e. academic space and support facilities
 - f. other statistical information pertaining to the College
 - g. comparative data pertaining to other colleges
 - h. other subjects related to higher education
2. Short, medium, and long-range forecasts of:
 - a. student enrollment
 - b. degree registration
 - c. personnel requirements
 - d. academic space requirements
 - e. teaching loads and student classroom contact hours
 - f. other pertinent subjects
3. Establishment and overall administration of College management information systems.
4. Institutional self-studies and planning programs in the areas of academics and administration.

We stress that the categories of studies to be undertaken in one year will vary with time and involve considerations crossing functional and organizational lines of other departments at the College.

In order that we might achieve our goals (outlined in Section 1.1) over the next seven years and help contribute toward the self-sufficiency of the College after the grant period, in Section 2, we will consider the specific objectives and the proposed budget for each year of the grant period.

4. Objectives, Performance Evaluation Measures, and Budgets

4.1	OBJECTIVES	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
P1.	To collect data for processing and reporting for each year of the grant period	X	X	X	X	X	X	X
P2.	To design and implement a management information system with computer driven data base having ready access to information in the areas of alumni and financial aid	X						
P3.	To design and implement an information system for the College budgetary accounting procedures		X					
P4.	To study the requirements for an automation of the library records and documents.	X						
P5.	To design and implement an information retrieval system for library serial records, books, and documents		X	X				
P6.	To design and implement an "automatic student assignment/exam grading system".	X	X					
P7.	To manage the computer services, resource allocation, training, and workshops	X	X	X	X	X	X	X
P8.	To investigate the student attrition and retention rates.		X		X		X	
P9.	To conduct graduate follow-up survey to determine the relative impact of our curriculum	X		X		X		X
P10.	To investigate the effectiveness of the existing organizational structure on the operating functions at the College		X		X			X
P11.	To determine new and effective student recruitment strategies for the Colloge	X		X		X		

OBJECTIVES	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
P12. To study the cost-efficiency of housing, student enrollment, faculty course-load, financial aid, and fiscal affairs		X		X		X	
P13. To evaluate the benefits of the curriculum programs in the divisions of Arts, Science, Education, Business, and General Studies	X		X			X	
P14. To participate at professional meetings, conferences, seminars, workshops, and contribute ideas and technical papers	X	X	X	X	X	X	X
P15. To engage in financially-sponsored research projects in order to help boost the economy of the College	X	X	X	X	X	X	X
P16. To develop a long-range plan for the College and to assist in Institutional self-studies	X			X			X
P17. To assist staff and faculty members in formulating policies	X	X	X	X	X	X	X
P18. To publish the IR Digest at least 4 times a year	X	X	X	X	X	X	X

4.2 Performance Evaluation Measure (Ei) for each Objective (Pi)

- E1. Institutional fact book for each year will be prepared from the computer printouts of student, faculty, and fiscal information. Copies of fact books will be mailed to a number of institutions of higher education for a review.
- E2. By September 1983, alumni and financial aid information systems will be available to College administrators for demonstrations. Manuals describing the operations within the systems will be prepared.
- E3. A budgetary accounting system will be available to the Business Office by September 1984. A user manual will be prepared.
- E4. By September 1983, a feasibility study report outlining the design specifications for a library information system will be on file at the activity director's office.
- E5. An information retrieval system simulating the current operations at the College will be available to library staff in 1985. A manual describing the operations of the system will be prepared.
- E6. A demonstration of the "student assignment/exam grading system" will be given to faculty members by September 1984.
- E7. The Computer Center activities for each year of the grant period will be on file at the activity director's office.
- E8. Technical reports on student attrition and retention rates will be published by September 1984, 1986, and 1987.
- E9. Technical reports on graduate students' opinions on the benefits of their education at the College will be published by September 1983, 1985, 1987, and 1989.
- E10. Technical reports on the effectiveness of the organizational structure on the functions at the College will be produced by September 1984, 1986, and 1989.
- E11. Reports on survey of new strategies for recruitment will be published in the IR Digests in 1983, 1985, and 1987.
- E12. Comparative cost analysis report (relating to housing, enrollment, faculty course-load, financial aid, and fiscal affairs) over a number of years will be produced by September 1984, 1986, and 1988. a consulting firm will assist in reviewing the reports.
- E13. Technical reports on the benefits of the curriculum program at the College will be published by September 1983, 1985, and 1988. Consultants will assist in evaluating reports.
- E14. Reports on conferences, seminars, workshops and professional meetings attended will be on file at the activity director's office for each year of the grant period.

- E15 Financial records and project reports on financially-sponsored research for each year will be on file at the activity director's office.
- E16. Documents on various institutional self-studies and long-range plans will be published by September 1983, 1986, and 1988.
- E17. Reports on assistance rendered to College administrators for each year of the grant period will be on file.
- E18. IR Digests will be published each year to keep students, staff, and faculty members apprized on the current trends in higher education, financial aid information, and the results of the IR Office research.

4.3 Implementation Technique

We propose to design and implement information systems in the areas of budgetary accounting, financial aid, alumni affairs, library automation, student grading system, class scheduling, and so on. Experience has shown that the College administrators find it difficult to effectively use many of the existing software packages and data management systems because of the difficulty in the control and command languages. For this reason, we will develop in-house software systems which will utilize a combination of Menu and Fill-in-the-Blank approaches.

The faculty, staff, and administrators will be provided with short introductory user's manuals explaining briefly how each information system works. A series of campus workshops will be administered each year to support or supplement the printed instructions.

Forms will be prepared to assist in an on-line update of data bases. Over the grant period, seminars and workshops focusing on problems and pitfalls of computer machines, planning for effective management of operating functions, usefulness of decision making based on statistical data, and so on, will be conducted.

4.4 FUNDS REQUESTED

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
<u>Salaries</u>							
MIS Director 100% (12 months)	\$27,500	\$30,250	\$33,275	\$36,602	\$40,263	\$44,289	\$48,718
Systems Analyst 100% (12 months)		21,000	23,100	25,410	27,951	30,746	33,821
Programmer (12 months)	18,000	19,800	21,780	23,958	26,354	28,989	31,888
Statistician/Researcher (12 months)	17,500	19,250	21,175	23,293	25,622	28,184	31,002
Computer Operator/Data Entry (12 months)	11,000	12,100	13,310	14,641	16,105	17,716	19,487
Secretary (12 months)	8,580	9,438	10,382	11,420	12,562	13,818	15,200
<u>Fringe Benefits</u>							
	15,225	16,748	18,422	20,264	22,290	24,519	26,971
Office and Programmatic Supplies	2,000	2,200	2,420	2,662	2,928	3,220	3,542
Professional Memberships	300	360	432	518	720	864	1,036
Subscriptions	150	200	250	300	350	400	450
<u>Equipment</u>							
Tape Drive	10,000						
Disk Drive		6,000					
2 TRS 80 III		5,000		5,000		5,000	
HP-2000							
2 VT-52	2,600		2,600		2,700		2,800
<u>Other</u>							
Telephone	400	500	600	700	700	800	800
Postage	250	300	300	350	350	400	400
Consultants	300	300	300	300	300	300	300
Consultant Travel	700	750	800	850	900	900	1000
TOTAL	114,505	154,096	149,146	166,268	180,095	200,145	217,415