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THE BAHAMAS

STAFF APPRAISAL REPORT ON A
VOCATIONAL AND TECHNICAL EDUCATION PROJECT

March 2, 1981

Projects Department
Latin America and Caribbean Regional Office

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CURRENCY EQUIVALENTS
(since February 1973)

Currency Unit = Bahamian Dollar (B\$)

US\$1.00 = B\$1.00

WEIGHTS AND MEASURES

1 hectare (ha) = 2.47 acres

1 square meter (m²) = 10.76 square feet

1 square kilometer (km²) = 0.39 square miles

FISCAL YEAR

January 1 - December 31

SCHOOL YEAR

September - August

THE BAHAMAS
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This report is based on the findings of an appraisal mission which visited The Bahamas in February/March, 1980. The mission comprised Messrs. A. Kouros (general educator), R. Harbison (economist), J. Gailer (technical educator, consultant), J. Kulski (architect, consultant), and Miss E. Raybould (nursing educator, consultant).

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MAP

BASIC DATA

Enrollments (1977/78)

	<u>Grades</u>	<u>Total</u>	<u>Net Enrollment Rate</u>
Primary	1-6	33,600	99%
Junior Secondary	7-9	15,100	89%
Senior Secondary	10-12	12,500	62%
Higher (1979)	13-15	3,100	N.A.

Teacher/Student Ratio (1977/78)

Primary 1:24
Secondary 1:19

Public Education Expenditures as Percentage of Central Government Expenditures (1979)

- Recurrent	23%
- Capital	4%
- Total	19%

Public Education Expenditures as Percentage of GDP (1979) 6.5%

I. SOCIO-ECONOMIC FACTORS RELATED TO EDUCATIONAL DEVELOPMENT

1.01 The central problems besetting the Commonwealth of The Bahamas are excessive dependence upon a single source of export earnings which is subject to sharp fluctuations in international markets, high unemployment, and inequitable distribution of income and welfare. Economic diversification, employment generation, and income redistribution are familiar development objectives. But neither the nature of the underlying problems in The Bahamas nor the setting in which their resolution must be sought is typical.

1.02 Exports are predominantly services, especially tourism. Unemployment is largely structural in nature. The disparities in income and welfare are closely associated with the presence of a large number of expatriates. Although 19 of the archipelago's 29 islands and more than 3,000 keys are inhabited, three-quarters of the population (estimated in mid-1980 at 237,000, of which half is under 20 years of age) is concentrated on only two islands. Relative prosperity on New Providence and Grand Bahama (with respectively 59% and 16% of the population) will continue to attract migrants, especially youth in search of jobs, from the economically less buoyant Family Islands, exacerbating further the maldistribution of welfare. Finally, natural resources, location and topography of immense natural beauty being the principal ones, are limited.

Economic Structure

1.03 The Bahamian economy is overwhelmingly service oriented. The two leading sectors, tourism and international finance and business services alone account directly for approximately 45% of GDP (possibly another 30% indirectly) and nearly 30% of employment, which approached 80,000 in late 1979 (40% female). The service sectors, more broadly defined, 1/ account for roughly three-quarters of employment. In contrast, the manufacturing and agriculture sectors together currently account for only about 10% of both GDP and employment.

1.04 By occupation, "service workers" constitute 35% of the employed. Just the front-line labor force in tourism--the 12,200 cooks, waiters, bartenders, maids, housekeepers and related personnel--make up 18% of employment. Clerical and related personnel total a further 17%. The occupational category of "production process and transport workers and laborers" constitutes only 20% of employed persons.

Recent Growth Performance and Outlook for the 1980s

1.05 The drive for development has been characterized by great openness of the economy and heavy reliance upon private investment rather than government intervention. Progress has been uneven. The 1950s were essentially a decade of preparation for the tourist boom of the 1960s. Restrictions on capital outflows in the United States during those years stimulated emergence

1/ To include community, social and personal services, and retail and wholesale trade, in addition to two leading subsectors of tourism and international finance and business services.

of The Bahamas as a significant international financial center. Growth of real GDP in the 1960s was in excess of 9% per annum, a level not again approached until the end of 1979. The all-important indicator of economic activity, visitor arrivals, virtually stagnated between 1971 and 1973, and then fell to a reduced level where it remained until 1977. The tourist revival was strong in 1978, and in 1979 arrivals accelerated to about 1.8 million, a point beyond which further growth of tourism, especially on New Providence and Grand Bahama, will require expansion of hotel accommodations. Since 1978, the growth of residential construction has been limited much more by lack of skilled and semi-skilled labor than by demand. The needed investments in hotels will also run up against this skill constraint.

1.06 The uneven growth of the past decade, based on labor-intensive export services, has occasioned strong fluctuations in the labor force, employment and unemployment, as summarized below, for New Providence and Grand Bahama for the period since independence in 1973: /1

	<u>1974/ 1979</u>	<u>1976/ 1979</u>	<u>1978/ 1979</u>
<u>Real GDP Growth-Annual Average Rate (%)</u>	1.75 /2	5.25	7.5
<u>Labor Force (excludes Family Islands)</u>			
Size at Beginning of Period	62,700	65,600	75,900
Average Annual Change (Percent)	3.8	4.6	1.7
Average Annual Change (Absolute Number)	2,640	3,245	1,315
<u>Employed (excludes Family Islands)</u>			
Size at Beginning of Period	57,000	51,600	59,200
Average Annual Change (Percent)	2.8	6.8	6.6
Average Annual Change (Absolute Number)	1,705	3,910	4,025
<u>Unemployed (excludes Family Islands)</u>			
Size at Beginning of Period	5,700	14,600	16,700
Average Annual Change (Percent)	12.1	-5.2	-17.8
Average Annual Change (Absolute Number)	935	-665	-2,710

/1 Data derived from published and unpublished reports on the Labor Force Sample Surveys which refer to December 1973, 1975, 1977 and 1979. All figures should be viewed as rough estimates.

/2 Assuming stagnant GDP in 1974 and 1975, although incomplete evidence suggests real GDP may actually have declined somewhat in these years.

1.07 During the 1980s growth is expected to slow appreciably from the 9% per annum rate achieved by late 1979. Capacity constraints in tourist accommodations, and the forecasts of generally lower real growth in Europe and

North America are the main factors suggesting a moderation of average annual real growth to 4% or 5% in the medium term. Prudence dictates projections based on the lower figure for the opening years of the decade.

Unemployment

1.08 Growth at the projected pace--about half what was achieved by late 1979--would generate approximately 3,800 additional jobs yearly beginning in 1980. But the numbers of unemployed persons will also increase. Indeed, barring radical shifts in immigration patterns and/or the labor force participation rate (about 46% in late 1979), the overall rate of unemployment will again begin to rise from the reduced level of 14% achieved in late 1979 when the economy was growing at double the rate projected for the early 1980s.

1.09 Even during the high growth years 1978-79, unemployment in The Bahamas was very unevenly distributed among population subgroups. ^{1/} On New Providence 16.6% of the labor force was unemployed in late 1979. This is more than twice the rate (7.0%) on Grand Bahama. The labor force aged 14-24 years suffers from 29.3% unemployment. Among women (who constituted 45% of the labor force in 1979), 23% were unemployed on New Providence and 13% on Grand Bahama. Corresponding figures for males were 10.2% and 3.8%, respectively. Unemployment among young women (ages 14-24) was nearly double the overall rate for females: 46% on New Providence and 28% on Grand Bahama. Among people who had previously been employed in the key sectors of restaurants and hotels, construction, and financial and business services, unemployment rates in late 1979 were about 12%. Unemployment among labor force members with either junior or senior secondary school education was higher than the overall unemployment rate (22% vs. 16.6% for New Providence for 1979). Furthermore, while the rapid growth during 1978-1979 caused a decline in the unemployment rate among the New Providence labor force with some secondary education (from 29% to 22%), the unemployment rate for those with senior secondary education remained constant at 26.5%, and the absolute numbers in both categories rose.

1.10 These differences together suggest that unemployment has significant structural components. Interventions in the education and training system may in some measure alleviate the problem if they are carefully designed to provide the knowledge and skills valued in the labor market to target groups that are at a demonstrated disadvantage in the competition for jobs.

Demand for Labor in the 1980s

1.11 Prudent expectations of the minimum annual requirements for key categories of labor during the 1980s are summarized in the following table:

^{1/} All data derived from the Labour Force Sample Surveys taken in December 1973, 1975, 1977 and 1979. The reported rates are estimates, unadjusted for seasonal variation. Note that by definition the labor force includes only those individuals actively seeking work or who are employed--i.e., full-time students and housewives not seeking work are excluded from both numerator and denominator of unemployment rate calculations. Data for 1979 pertain only to New Providence and Grand Bahama; no information is available for the Family Islands.

PROJECTED MINIMAL ANNUAL DEMAND FOR LABOR IN THE 1980s^{1/}

<u>Category</u>	<u>Annual Increment due to:</u>		<u>Total Annual Increment</u>	<u>As Percentage Employed Workers (end 1979)</u>
	<u>Replacement</u>	<u>Growth</u>		
<u>Selected Occupations</u>				
Professional, technical and Managerial	355	490	845	5.3
Clerical and related	320	295	615	4.3
Sales	165	565	730	9.9
Cooks, waiters, bartenders, housekeepers, maids and related	340	90	430	2.8
Construction trades (skilled and semi-skilled, not including laborers)	165	60	225	3.0
Other occupations	515	-390	125	0.5
<u>Selected Economic Sectors</u>				
Construction Industry	140	665	805	13.6
Restaurants and hotels	395	630	1025	6.1
Finance and business services	160	115	275	4.0

1/ The following assumptions underlie these estimates:

- (a) annual increments to employment beginning in 1980 will be constant at roughly 75% of the average experience of 1976-1979, which implies a slightly declining rate of growth of employment over the decade. This is purposefully below the figure of 3,800 additional jobs per annum mentioned in the text, and so represents a lower bound estimate.
- (b) The working life of each and every individual is 45 years. This translates into an annual attrition rate of only 2.2%, which is undoubtedly lower than what will actually occur when mortality and retirements are counted.
- (c) The distribution of employment in the entire Commonwealth (by occupation and economic sector) roughly approximates that prevailing in 1979 for New Providence and Grand Bahama combined (data available for 1979 only on the two major islands). This probably results in an under-estimation of employment creation in the economic sectors of agriculture and trade, and in the occupational categories of agriculture, fishing and common labor.
- (d) Eighty-five percent of employment in 1979 was concentrated on New Providence (55%) and Grand Bahama (30%), which implies a continuation of the trend towards concentration of economic opportunities on these two islands. The Government's development strategy, however, contemplates greater dispersion of economic activities to the Family Islands. These assumptions are consciously conservative and result in lowerbound estimates of demand for labor in the 1980s.

1.12 These figures, which do not include gradual replacement of non-Bahamian personnel amounting in late 1979 to 14% of the labor force, highlight the demand for high and middle-level manpower. At present, graduates from Bahamian and foreign higher education meet barely 50% of the manpower requirements at this level. The output of secondary schools covers most lower middle-level manpower requirements (clerical, sales, services). But the quality of education and training provided by the system is not up to the standards required in either the labor market or higher educational institutions.

1.13 The Government needs to streamline its system for developing technical manpower so that it contributes more efficiently to achievement of the three major economic objectives of the country: generation of viable jobs for the unemployed and new labor force entrants, diversification with appropriate linkages to the leading sectors of tourism and international finance and business services, and distribution of the benefits of growth more evenly among the Commonwealth's islands.

II. THE EDUCATION AND TRAINING SECTOR ^{1/}

A. Assessment of the Education and Training System

Overview

2.01 The Bahamas has a comparatively strong system of general education for its youth. Virtually all children (i.e., 95%) are enrolled through the first nine years of common general education and almost two-thirds of those eligible attend senior high school. There is no disparity between male and female enrollments. The quality of general education is also comparatively strong. A high proportion (86%) of public primary and secondary level teachers is qualified. Teacher:student ratios are low (1:24 in primary and 1:19 in secondary education). ^{2/} Due to a policy of almost automatic promotion, dropout has also been low. Academic education has been historically favored over technical education and training. The output from technical education and training is below labor market demands, its quality needs improvement and it requires better management and coordination with the private sector.

General Education

2.02 Some quantitative characteristics of the system for the school year 1977/78 are summarized in the table below:

Level	Grade	Total Enrollment	% Age Group	% Female	% Private	Total No. Teachers	% Qualif. Pub. Sch. Teachers	% Expa- triate Teachers	Teach/ Stud. Ratio
Primary	1-6	33,600	99 (95)	51	22	1,400	83	7	1:24
Junior	7-9	15,100	89 (98)	49	16	760	(98)	20	1:20)
Senior	10-12	12,500	62	51	21	700	(	43	1:18)

^{1/} The structure of the education system is presented in Annex 1, C-1.

^{2/} Annex 1, T-1.

2.03 As the above table indicates, the nine-year general education course (grades 1-9), through the elimination of the selective Common Entrance Examination (CEE) for primary school graduates (grade 6), has become widely available to almost all children of 6 to 15 years of age. The participation rate in senior high schools (62%) is increasing every year; it increased by 2.5% p.a. during the period 1976-78, compared with an average increase of 1.1% for the whole system of primary and secondary education.

Technical and Vocational Education

2.04 Senior high schools offer a comprehensive type of education consisting of a common core curriculum taken by all students, and optional subjects, such as business and commercial, hotel and tourism, agricultural and marine science, health and home economics, and technical subjects (technical drawing, industrial arts, electronics, electrical installations, etc.). The comprehensive approach to senior high school education is a recent development in The Bahamas requiring an attitudinal change on the part of parents, students and teachers, who have historically favored academic over technical education. Technical subjects were formally introduced into the senior high school program in 1976. It was also as recently as 1973 that the three higher education institutions of the country, which offer technical and vocational courses--the College of The Bahamas, the Hotel Training College and the Department of Nursing Education--were firmly established. There are three major issues confronting the system of technical and vocational education: output, quality, and management and institutional capacity.

2.05 Output of Technical/Vocational Institutions. The main institutions training manpower at the craftsman, lower technician and technician levels are the senior high schools (lower technicians), the College of The Bahamas (business and industrial craftsmen and technicians), the Hotel Training College (technicians in the hotel industry) and the Department of Nursing Education (technicians in health services). The 1979 output of craftsmen and technicians from these institutions compared to the estimated annual manpower demand (para. 1.11) is shown in the following table:

Institution	Grades	Annual Output (1979)	Annual Demand <u>/1</u>	Annual Shortage
Senior High Schools	10-12	3,000	3,000	-
College of The Bahamas				
Craftsmen	10	50	400	350
Technicians	12-15	100	215 <u>/2</u>	115
Hotel Training College				
Management	12-14	60	120	60
Other	12-14	100	110	10
Department of Nursing Education				
Basic Nursing	11-14	55	70	15
Advanced Nursing	15	<u>30</u>	<u>60</u>	<u>30</u>
TOTAL		3,395	3,975	580

/1 Due to lack of reliable data, only the minimal annual average demand for the 1980s is considered here.

/2 Includes 15 teachers of technical subjects.

Source: National Department of Statistics (Labor Force surveys of 1973, 1975, 1977 and 1979) and mission estimates.

2.06 The output shortfall from the existing insitutions can be attributed to lack of adequate and proper facilities. Senior high schools function on a full-time basis (35-40 periods per week). Due to lack of workshops (14), science/food laboratories (5) and equipment at 12 out of the 21 senior high schools offering technical courses, the time allocation to these courses is 4-6 periods per week instead of the 14 periods recommended by the Ministry of Education (i.e., 14% instead of 40% of weekly time). This adversely affects the level and quality of training of the senior high school technical courses. The Soldier Road campus, one of the two campuses (the other is the Oakes Field campus) of the College of The Bahamas, provides day and evening courses on a full-time and part-time basis for three divisions of the College of The Bahamas--the Business and Administration Studies, the Technical Studies and the Applied Science Divisions. The Hotel Training College, despite the inadequacy of its buildings, also offers day and evening courses on a full-time basis. The rented and quite unsuitable premises of the Department of Nursing Education are used, during the absence of students attending their hospital internship course, for the advanced nursing training courses.

2.07 The craft courses at the Soldier Road campus last one year. In response to recent shortages in the building and maintenance trades ^{1/} the Government is promoting a number of intensive six-month courses intended for the initial training of about 400 persons and the upgrading of skilled workers in the industrial and business trades. These courses, following a flexible program of study based on different trade requirements and previous knowledge of trainees, will eventually replace the one-year craft (Certificate) courses of the College of The Bahamas. However, expansion of both the craftsman and the technician courses will create an accommodation problem at the Soldier Road campus which can only house about 400 trainees.

2.08 Quality of Technical/Vocational Training. The Divisions of Business and Administration, Natural Sciences, Humanities and Social Sciences of the College of The Bahamas (COB) offer two-year associate degree courses, which are recognized by a number of foreign universities. The Teacher's Certificate issued by the Division of Education of the COB is also recognized for purposes of further studies by the University of West Indies. The Hotel Training College has attained full accreditation from the U.S. Southern Association of Colleges and Schools. The courses provided by the Department of Nursing Education closely follow curricula and standards set for the training of nurses in the U.K. Curricula and standards for the above courses, though influenced from abroad, have also been adopted, with assistance from representatives of industry and other relevant agencies to fit local conditions.

2.09 No training standards or trade tests have been developed for the craft courses at the College of The Bahamas, which in many respects are similar to COB's diploma courses. Ad hoc committees have been set by the Curriculum Unit of the Ministry of Education to prepare guidelines for the teaching of technical subjects in senior high schools. Progress, however, has been very slow because of shortage of qualified personnel. There are only two supervisors for technical subjects dealing with all aspects of technical education, including curriculum development.

2.10 There is a short supply of equipment and library books on technical/vocational subjects in all technical/vocational institutions. The Government provides consumable materials to all public institutions; but they are not always adequate and must be supplemented by contributions from parents' associations.

2.11 Technical/vocational institutions depend heavily on expatriate teachers. In 1979, 53 out of a total of 104 technical teachers (51%) in senior high schools were expatriates. The Division of Education, which does not provide training for technical teachers, could reduce the dependence on expatriate staff, by providing such training as well as systematic upgrading of teachers in service.

2.12 Management and Institutional Capacity of the Technical/Vocational System. With the exception of the Department of Nursing Education, which comes under the jurisdiction of the Ministry of Health, the Ministry of Education and Culture (MEC) is either directly or indirectly (i.e., through appointed Councils) responsible for the administration of pre-school through

^{1/} In 1979, the output of craftsmen from the College of The Bahamas was just below 50, while the minimum annual demand for construction workers during the 1980s is estimated at 225 (para. 1.11).

college education. The Ministry of Education and Culture has two main departments which are involved in the development and administration of technical/vocational training (Annex 1, C-2):

- (a) the Department of Planning and Culture primarily deals with educational research, planning and evaluation. Its Planning Unit is involved in the collection of annual statistics and projection of enrollments. Because of the absence of a manpower data base system, the Unit is not able to make any technical/vocational manpower projections. Its Evaluation Unit, consisting of one qualified staff member, is involved in students' academic achievements. There is no aptitude testing system to support the vocational guidance of students.
- (b) The Office of the Director of Education oversees supervisory services, curriculum development and other support services. The Assistant Director of Education is responsible for technical and vocational education and training. Supervision of technical subjects is provided by two supervisors, who are also involved in curriculum development, as well as in administrative matters. However, there is no agency involved in dealing systematically with the evaluation of existing training programs or the provision of needed feedback for their improvement.

Each of the various services of the Ministry of Education and Culture (e.g., research, planning, curriculum development, evaluation, technical and vocational education) is controlled by one or two persons, who are generally qualified and experienced, but are at a disadvantage because they are without the support of a properly qualified staff.

2.13 In 1979, as an initial step toward organizing the vocational training system on a new basis, the Government set up and funded an interim Industrial Training Council. The main function of the interim Council has been to organize, administer and operate an industrial training center at the Soldier Road campus focussed on accelerated training and upgrading of skilled workers in the industrial and business trades. This arrangement was considered necessary because of shortages of skilled workers (para. 2.07). The interim Council consists of three members representing the Ministries of Education, Labor and Industry. Discussions between the Government and representatives of industry and trade unions are expected to lead shortly to the establishment of a permanent National Industrial Training Council, responsible for all industrial training and upgrading courses in the country. This permanent Council is to be financed by both Government and industry.

Education Finance

2.14 Since 1970 the total public educational expenditure (recurrent and capital) has regularly amounted to 20% of total government expenditure, equivalent in recent years to roughly 6.5% of GDP. Recurrent public expenditure on education, approximately 22% of overall recurrent public expenditure in recent years, has grown in real terms at an average rate of about 4.2% per annum since 1973. Personnel costs absorb three-quarters of the Ministry of

Education's recurrent expenditures. By contrast, teaching materials and equipment (including furniture/furnishings) account for less than 4% of recurrent expenditure on education. This provision in 1979 amounted to US\$33 per child enrolled in public primary and secondary schools. This is insufficient, especially at the secondary level, where technical training activities should be reinforced. Estimated annual recurrent costs per pupil in 1979 were US\$570 for primary, US\$860 for secondary (US\$670 for junior secondary and US\$1,200 for senior secondary), US\$3,180 at the College of The Bahamas, and US\$5,670 for tertiary level training abroad. ^{1/} Current costs per pupil were well above levels typical of the Caribbean due to (a) high salaries--about four times the GDP per capita for trained teachers, many of whom at the secondary level are expatriates--and (b) small school size, which is the result of geographical dispersion.

External Aid

2.15 With the exception of some technical assistance provided for the preparation of the 1976-80 Five-Year Education Development Plan by the Commonwealth Secretariat through the Commonwealth Fund for Technical Cooperation, the Government of The Bahamas has received no external aid for the development of the education sector.

B. Education Development Strategy

Government Sector Policy and Strategy

2.16 The overall education policy objective of the Government is the Bahamianization of education, i.e., the development of a national school system oriented towards indigenous goals and objectives. One clear implication of this policy is the gradual reduction of the country's dependence on non-Bahamian personnel, which forms 14% of the total labor force, and holds most of the high level posts in the country. This will require the development of the technical and vocational education system to adequately serve the manpower requirements of the country, by increasing its output, improving its quality and strengthening its institutional capacity. Specifically, Government plans over the next decade include the following:

(a) Increase of output of technical/vocational institutions:

- (i) Establishment of an Industrial Training Center at the Soldier Road campus, under the aegis of the National Industrial Training Council, to provide flexible and intensive training courses for about 400 industrial and office workers, and short, upgrading courses for about 100 skilled workers. These courses will replace the one-year craft (Certificate) courses of the College of The Bahamas;

^{1/} These figures are, at best, order of magnitude approximations, since the coding scheme used to identify educational level in the expenditure accounts has been inconsistently applied and since both the primary and secondary subsystems contain schools catering to various (and overlapping) age groups. Further, the figure for the College of The Bahamas is based on an estimate of full-time equivalent students at both technical and craft levels.

- (ii) Provision of 14 workshops and 5 science/food laboratories to 12 senior high schools for the effective implementation of their technical subjects program;
 - (iii) Relocation of the Divisions of Technical Studies and Business and Administration Studies of the College of The Bahamas to new premises at the Oakes Field campus. Each Division will have an enrollment capacity of about 200 for its two-year courses.
 - (iv) Establishment of a Technical Teacher Education Unit at the Oakes Field campus with an enrollment capacity of about 50, for a three-year training program for secondary school teachers of technical subjects;
 - (v) Expansion and modernization of the Hotel Training College for about 330 trainee places; and
 - (vi) Construction of new, suitable facilities for the Department of Nursing Education for about 180 trainee places.
- (b) Quality improvement
- (i) Provision of technical assistance for: the development of curricula for the Industrial Training Center, the technical subjects of the senior high schools, the Division of Technical Studies and the Technical Teacher Education Unit at the College of The Bahamas, and the advanced management course of the Hotel Training College;
 - (ii) Establishment of a Learning Resource Center for the College of The Bahamas;
 - (iii) Provision of library books and other learning materials to all technical/vocational institutions mentioned in (a) above;
 - (iv) Through technical assistance, upgrading of the staff of the Learning Resource Center of the Ministry of Education; and
 - (v) Provision of technical assistance for upgrading the teaching staff of all institutions mentioned in (a) above, and the organization of systematic staff upgrading courses by the Technical Teacher Education Unit, when established.
- (c) Strengthening of institutional capacity
- (i) Establishment of a manpower data base system (para. 2.12(a)) at the Ministry of Finance or the National Department of Statistics;

- (ii) Provision of technical assistance for establishing the structure of the National Industrial Training Council, the organizational and administrative arrangements, the promotion of trade standards and certification tests, the planning and coordination of the training programs and their evaluation, and the financing of the activities of the Council; and
- (iii) Provision of technical assistance for training additional staff for the Planning Unit (data analyst, manpower planner, institutional planner), Evaluation Unit (program evaluation, psychometric studies) and the Curriculum and Supervisory Services (technical and science subjects) of the Ministry of Education and Culture.

The Government has requested assistance from the Bank for the achievement of the above objectives.

Bank Lending Strategy

2.17 The Bank lending policy supports the Government objective of developing the technical and vocational education system, i.e., to strengthen its institutional capacity, improve its quality, and increase its productivity to effectively serve the developmental needs of the country.

III. THE PROJECT

3.01 The proposed project, in accordance with the Government sector policy and the Bank lending strategy, would pursue three main objectives:

- (a) to increase the output of the technical/vocational education system (2.16a);
- (b) to improve its quality (2.16b); and
- (c) to strengthen its institutional capacity for needed adjustments to evolving economic demands (2.16c).

3.02 For the achievement of the above objectives, the project would include the following specific items:

A. Construction, equipping and furnishing of:

	<u>Grades</u>	<u>Student Places</u>		
		<u>Total</u>	<u>Replac-</u> <u>ment</u>	<u>New</u>
1. <u>The Industrial Training Center</u>	10	400	400	-
2. <u>Senior High Schools</u>				
14 new and 5 refurbished workshops and laboratories for 12 senior high schools	10-12	285	75	210
3. <u>The College of The Bahamas (COB)</u>	13-15			
(a) Divisions of Applied Science, Technical Studies and Business and Administration Studies		400	200	200
(b) The Technical Teacher Education Unit		50	-	50
(c) The Library/Learning Resource Center		130	-	130
4. <u>The Hotel Training College</u>	13-14	330	300	30
5. <u>The Department of Nursing Education</u>	12-15	180	150	30

B. Establishment of a national manpower data base system; and

C. Provision of technical assistance comprising 75 man-months of specialist services and 489 man-months of fellowships.

The Industrial Training Center (Proposed Outlay 1/: US\$0.50 million)

3.03 The project would assist the Government in converting the Soldier Road campus, currently used by the Divisions of Applied Science, Technical Studies, and Business and Administration Studies, into the Industrial Training Center. Classrooms would be converted into workshops and a learning resource unit, and existing workshops would be refurbished to support the industrial training program. The 400 trainee places would be made available for short (3-6 months) and longer (12-18 months) craftsman training courses allocated to various occupations, on the basis of manpower requirements (para 1.11), as follows: industrial and construction trades, 280; secretarial and office arts, 60; and others, 60. With day and evening courses, the Center would train about 500 craftsmen per year. The Center would be open to graduates of junior high schools, as well as to out-of-school youth and adults who are unemployed or wish to upgrade their skills. No tuition would be charged, and stipends would be used to attract trainees. A total of 27 instructors would be needed for the operation of the Center, but only 4 instructors would remain when the College of The Bahamas moves out. The National Industrial Training Council would be responsible for hiring the additional 23 instructors. Upgrading of 10 local instructors for the Center is also provided for under the project.

3.04 The Center is to be administered eventually by the proposed National Industrial Training Council. The Council, which would be composed of representatives from Government, industry and trade unions, would replace the temporary, interim Industrial Training Council (para 2.13). The Government intends to approach the representatives of industry, no later than July 31, 1981, with a view to agreeing with them on the respective participation in management of the Council and the financial contributions to be made by the Government and industry towards the funding of the Council. After extensive discussions among the representatives of Government, industry and trade unions, a permanent Council is expected to be legally established by mid-1982. In addition to administering the Industrial Training Center at the Soldier Road Campus and providing extension arrangements for evening craft training courses in the senior high schools for out-of-school youth and adults, the Council would serve as a forum for general discussion of training matters, and help coordinate skill training throughout The Bahamas. Specialist services are provided under the project to assist the Government in organizing the structure of the Council, the development of training courses, the establishment of trade standards and trade certification procedures, and the evaluation of the training programs from the dual view of their cost-effectiveness and their relevance to employment/manpower requirements. During negotiations, the Government provided assurances that the National Industrial Training Council, including industrial and trade union representatives, with appropriate arrangements for its management and financing mutually shared by Government and industry, would be established, satisfactory to the Bank, by June 30, 1982. The Government also provided assurances that it would establish by December 31, 1982, a monitoring and evaluation system satisfactory to the Bank for assessing annually the effectiveness and impact of the training programs administered by the Council, and make available to the Bank, for review and comments, annual evaluation reports of the Council's training activities during the period of the project.

1/ This and subsequent figures for proposed outlay exclude contingencies.

Senior High Schools (Proposed Outlay: US\$2.39 million)

3.05 The project would provide 14 new and 5 refurbished workshops and science/food laboratories, and learning materials to 12 senior secondary schools for a total of about 285 student places to enable them to implement effectively their technical education program. When the facilities are completed, about 750 students would be able to take industrial courses, with an annual output of some 300 students. Such training would lay the foundation for further studies in technology and science at the tertiary level; however, many students would attain a skill level which would be sufficient for employment upon graduation. These schools would also conduct craftsman training courses in the evening through extension arrangements to be made by the National Industrial Training Council. Four schools have been selected from New Providence, and the remaining eight schools from the Family Islands, on the basis of their size and existing facilities, local manpower requirements, and regional equity. As some schools already have teaching staffs, only nine additional teachers would be required. They would initially be trained in the Technical Teacher Education Unit of the College of The Bahamas to be established under the project (para 3.07) and would receive regular in-service training. The curricula for the technical courses would be further developed by the Curriculum Development Unit under the Office of the Director of Education with technical assistance to be provided under the project (para 3.12(b)).

The College of The Bahamas (COB) (Proposed Outlay: US\$3.88 million)

3.06 The project would provide for transfer of the Divisions of Applied Science, Technical Studies and Business and Administration Studies of the COB from the Soldier Road to the Oakes Field campus, by constructing, equipping and furnishing new classrooms, workshops, laboratories and other ancillary facilities. The transfer of these divisions would enable the COB to integrate all its activities into one campus, realizing economies of scale in the offering of courses and the use of facilities. The new Applied Science/Technical Division would offer 4-semester, post-secondary programs and produce about 90 technicians annually, considered to be within the country's absorptive capacity (para 1.11). Students not meeting standard entrance requirements would be able to take a 2-semester preparatory course. The 21 teachers who would transfer from the Soldier Road campus would be sufficient. Curricula would be upgraded by the faculty, but specialists and fellowships provided under the project would assist in the curriculum development of electrical and mechanical technology (para 3.12). The new Division of Business and Administration Studies would provide about 200 student places, which would permit an annual output of about 100 middle level graduates, which would be adequate for the needs of accounting, banking and finance, marketing and management, data processing and business economics. Three additional teachers would be required, for a total of 28.

3.07 The project would also assist the COB in establishing a new Technical Teacher Education Unit. The Unit would annually produce about 15 technical junior and senior high school teachers, which would meet annual requirements (para 2.16(a)(iv)). The program would consist of three years of training.

Provisional admissions would be made for those who do not meet the requirements and wish to take preparatory courses. In collaboration with the Divisions of Education and Technical Studies, i.e., utilizing their shops, laboratories and teaching staffs, the Unit would organize its courses, which would include in-service training arrangements. The curriculum of the program would be developed within one year of the signing of the loan agreement, by a committee composed of representatives of the Divisions of Technical Studies and Education of the COB and the Ministry of Education, supported by teacher educators, provided under the project, with training in technical education, curriculum development, evaluation and educational technology (para 3.12).

3.08 The project would also provide for a central Library/Learning Resource Center which would enrich the teaching/learning programs of all the divisions of the COB; it would also provide maintenance services to all divisions.

The Hotel Training College (Proposed Outlay: US\$1.57 million)

3.09 The project would construct and refurbish classrooms and practical teaching facilities at the New Providence campus and equip the teaching facilities at the Grand Bahama campus. The project would enable the College at New Providence to expand its full-time enrollment capacity by 60, i.e., from 60 to 90 students for the two-year diploma course and by 30 students for a new one-year post-diploma course. The College would be able, through day and evening courses, to offer 23 different programs for 330 full-time students and upgrading or part-time courses for about 100 students. The New Providence campus will also continue organizing industry-based courses for about 1,000 persons every year. The Grand Bahama campus would continue to operate mainly industry-based courses; however, it would also initiate a small number of institutionalized courses. To this effect, negotiations are underway for the acquisition of an additional Government building on an adjacent site. At present 18 teachers are working at both campuses; no difficulties are anticipated in hiring the nine additional teachers required for the New Providence campus and the two for the Grand Bahama campus. Curricula have been adequately updated; however, the curriculum for the new advanced diploma course would be developed by a specialist to be provided under the project (para. 3.12). The College, administered by the Hotel, Tourism and Allied Industries Training Council, would continue to meet its operational costs through equally shared financing by Government and industry.

Department of Nursing Education (Proposed Outlay: US\$1.44 million)

3.10 The project would provide for replacement of the facilities for the Department of Nursing Education to improve its teaching program with modern workshops, laboratories and equipment and to increase its enrollment from about 180 to about 240 trainees--180 trainees for basic nursing courses (registered and clinical nursing) and 60 trainees for advanced nursing (community, midwifery and psychiatric) and other upgrading courses. The enrollment increase is possible because students in the registered nursing program spend their third year at the hospital for their internship program. The training policy and curriculum, which are consistent with the Government's

health care policy, are set, approved and would be updated regularly by the Nursing Council of The Bahamas, which is composed of representatives of the Government and the medical profession. In addition to the 17-member teaching staff, two additional members would be needed to serve the increased enrollment in basic and advanced nursing courses.

National Manpower Data Base System (Proposed Outlay: US\$0.05 million)

3.11 In order to establish a national manpower data base system, the project would finance installation of a master data file on computer through utilization of registration information already compiled by the National Insurance Board, and implementation of procedures for updating this master file annually. The project would include installation of appropriate software on the Ministry of Finance computer and training of staff in its use and the purchase of key punches or other data recording machinery. These activities would provide much of the information needed by the Government to comply with its monitoring and evaluation obligations (para. 3.04).

Technical Assistance (Proposed Outlay: US\$1.21 million) (Annex 1, T-2)

3.12 The project would finance the equivalent of 75 man-months of specialist services and 489 man-months of fellowships in support of the project components as follows:

- (a) Specialist Services: (i) to assist the Government in the organization and management of the National Industrial Training Council; (ii) to advise the College of The Bahamas in curriculum development, teaching technology, measurement/evaluation, and maintenance procedures; and (iii) to assist the Hotel Training College in the curriculum development for the advanced management program.
- (b) Fellowships: (i) to upgrade teaching staff of the Industrial Training Center, the College of The Bahamas, the Hotel Training College, and the Department of Nursing Education; and (ii) to train the staff of the Ministry of Education in educational planning, curriculum development, educational evaluation, and learning resource center activities.

3.13 Technical assistance costs have been estimated at US\$6,000 per man-month of specialist services and US\$1,550 per man-month of fellowships. During negotiations the Government gave assurances that all specialists and their terms of reference and conditions of service would be acceptable to the Bank, and that candidates for the fellowship program would be selected and placed following criteria and procedures acceptable to the Bank. Fellowship recipients would obligate themselves, under the normal government procedures, to return to government employment for which they are to be trained. To provide guidance to the agencies concerned with the above matters the appraisal mission prepared draft terms of reference for the specialists and criteria for consideration in making fellowship awards.

IV. COST AND FINANCING OF THE PROJECT

Cost Estimates

4.01 The total cost of the project is estimated at about US\$18.4 million and is exempt from taxes. The breakdown of type of expenditure and project institution, shown in Annex 1, T-3, is summarized as follows:

	US\$ (million) ^{/1}		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
Industrial Training Center	0.08	0.42	0.50
Senior High Schools	0.75	1.64	2.39
College of The Bahamas	1.27	2.61	3.88
Hotel Training College	0.55	1.02	1.57
Department of Nursing Education	0.55	0.89	1.44
National Manpower Data Base	0.02	0.03	0.05
Technical Assistance	0.06	1.15	1.21
Project Administration	<u>0.30</u>	<u>0.30</u>	<u>0.60</u>
Base Cost Estimates ^{/2}	3.58	8.06	11.64
Contingencies:			
Physical	<u>0.52</u>	<u>0.92</u>	<u>1.44</u>
Sub-Total	4.10	8.98	13.08
Price	<u>2.23</u>	<u>3.09</u>	<u>5.32</u>
Total	<u>6.33</u>	<u>12.07</u>	<u>18.40</u>

^{/1} US\$1.00 = B\$1.00.

^{/2} Estimated December 1980 prices.

4.02 Base costs are expressed in estimated prices as of December 1980. Costs of civil works are derived from recent contracts and actual costs of similar construction adjusted for recent price increases. Cost estimates reflect planned maximum use of cost-effective design, planning and construction procedures applicable to The Bahamas. Average building costs, which are comparable to those in other Caribbean countries, are estimated at US\$470 per square meter of gross floor area on the basis of the one- or two-story classroom and administrative units of cement block and brick walls and one story workshops of the steel and reinforced concrete structure with asbestos or galvanized roofing.

4.03 Project cost estimates include: (a) physical contingencies for unforeseen factors averaging 12% of the base cost; and (b) price contingencies as follows:

	1981 (%)		1982-1985 (% p.a.)	
	Local	Foreign	Local	Foreign
Site Works and Construction	25	18 <u>/1</u>	15	15 <u>/1</u>
Professional Services	15	15	15	15
Furniture and Equipment	12	12	8	8
Technical Assistance	10	10	10	10
Project Administration	15	15	15	15

/1 These contingencies are based on mission examination of recent experience in The Bahamas and in The Bahamas' traditional supplier countries for the construction materials to be purchased abroad, and on judgmental projection of future trends.

4.04 The foreign exchange of US\$12.1 million represents about 65% of the total project cost (net of taxes). This has been calculated as follows: construction and site development--50%, furniture--85%, equipment--95%, professional fees--80%, technical assistance--95%, and project administration--50%.

Financing Plan

4.05 The total project cost of US\$18.4 million would be financed by a Bank loan of US\$7.0 million (equivalent to 38% of the total cost, or 57% of the foreign exchange cost) and a Government contribution of US\$11.4 million. The flow of funds required to finance the project has been estimated as follows:

<u>Fiscal Year</u>	<u>Bank</u> (US\$'000)	<u>Government</u> (US\$'000)	<u>Total</u> (US\$'000)
1982	300	1,400	1,700
1983	500	3,900	4,400
1984	1,700	3,800	5,500
1985	3,500	1,600	5,100
1986	<u>1,000</u>	<u>700</u>	<u>1,700</u>
Total	7,000	11,400	18,400

Because of the high priority accorded to the project by the Government, it would make adequate budgetary allocations to meet the annual counterpart funds required to implement the project.

4.06 Recurrent expenditures generated by the project in 1985 are estimated at B\$1.5 million (at 1980 prices), which is about 2.9% of the Government's total recurrent budget on education in 1980. Of this total B\$0.19 million is attributable to the Department of Nursing Education; this is equivalent to

approximately one-half of one percent of Ministry of Health's recurrent expenditures for 1980. This level would not create any substantial burden on total Government recurrent expenditures, which have been growing at 11.8% p.a. (1973-79). The cost of the consumable materials included in the project-generated recurrent costs is expected to be partly met by the sale of goods produced and the services rendered (automobile repairs and maintenance, etc.) at the Industrial Training Center, and for charges made for meals, parties, receptions, etc., provided to the public by the Hotel Training College as an essential part of their training program.

V. IMPLEMENTATION AND DISBURSEMENTS

Project Administration

5.01 A project unit was established in the new Development Project Management Office of the Ministry of Finance, which was recently created by the Government with the express purpose of implementing Bank-financed projects in a timely and cost-efficient way. The Project Unit would be responsible for implementation of the entire project, including monitoring and coordinating of the technical assistance program. Key Project Unit staff consists of a project coordinator, an architect, and an assistant architect, 1/ and two liaison officers appointed by the Ministries of Education and Culture, and Health and Social Insurance.

5.02 Under the coordination of the two liaison officers, technical staff would be selected from their respective ministries and from the project institutions under their jurisdiction to offer whatever support is necessary for the preparation of educational specifications, furniture and equipment lists, terms of reference for specialist services, and monitoring of preparation or restructuring of the various training programs to be implemented by these institutions. The Project Unit would be supported by the necessary support staff, and part-time staff consisting of an accountant and a procurement officer, supplied by the Development Project Management Office. To help the Government retain qualified professionals and to ensure efficient project implementation, the cost of the Project Unit (estimated at about US\$0.6 million 2/ including US\$300,000 for foreign experts not available locally) has been included in the total project cost.

Implementation Schedule

5.03 To assist the Government in achieving effective and timely execution of the proposed project, an implementation schedule was discussed and agreed upon during negotiations (Annex 1, C-3). The Project Unit would review the agreed implementation schedule and update it on a regular basis for use as a project implementation and monitoring tool.

Professional Services

5.04 Architectural designs would be prepared by the Project Unit and engineering designs, cost estimates, and supervision of construction of project institutions would be undertaken by consulting firms selected and appointed on terms and conditions acceptable to the Bank. The Project Unit staff would review the civil works designs and equipment and furniture lists before submitting them and the bidding documents to the Bank, certifying that they meet the agreed economic and functional standards and the educational

1/ Cost estimates by a quantity surveyor will be undertaken under contract (para. 5.04).

2/ Excluding contingencies.

objectives of the project. Prior to Board presentation, the Government confirmed to the Bank that designs for the project items of the College of The Bahamas, acceptable to the Bank, have been sufficiently advanced to allow tendering to begin in July 1981.

Sites

5.05 The Government already owns all the sites required for the project institutions.

Procurement

5.06 Contracts for furniture and equipment amounting to about US\$2.7 million (excluding contingencies) would be awarded on the basis of international competitive bidding in accordance with Bank guidelines. However, furniture and equipment that cannot be grouped into packages of at least US\$100,000 would be procured through local procedures acceptable to the Bank. Procurement under this procedure is not expected, in the aggregate, to exceed US\$700,000 equivalent, or about 20% of the total cost of furniture and equipment to be procured. In the case of procurement under international competitive bidding procedures, domestic manufacturers would receive a margin of preference of 15% of the c.i.f. cost or the applicable customs duty, whichever is lower. Prior Bank approval would be required for the award of any furniture and equipment contracts exceeding US\$50,000. The estimated base cost of locally procured furniture and equipment does not include local taxes. Imported furniture and equipment will not be subject to import duties.

Maintenance

5.07 The Government would adequately maintain the buildings, furniture and equipment of all project institutions, including preparation of maintenance manuals by the Project Unit, and would make adequate allocation for this purpose in the budgets of the Ministries of Education and Health.

Disbursements

5.08 A project loan of US\$7.0 million, equivalent to 38% of the project cost of US\$18.4 million, would finance 57% of the foreign exchange component. Disbursement of Bank funds would be made over 4.5 years with construction and installation of furniture and equipment completed by the end of 1985 (Annex 1, T-4). Disbursements would be made against: 100% of total expenditure for technical assistance and the manpower data base system; 95% of equipment and furniture; and 70% of professional fees and project administration.

5.09 Retroactive financing not exceeding US\$100,000 would cover expenditures incurred after January 1, 1981, for designs, professional services, technical assistance and project administration, in order to advance project implementation.

Audit

5.10 The Government's general auditor's office would audit the Project Unit's accounts, including statements of expenditure (SOE) for project administration. Yearly audit reports would be sent to the Bank for information.

VI. BENEFITS AND RISKS

Benefits

6.01 The proposed project is expected to have a major impact on increasing the number and quality of graduates in key fields of skill training. Skill shortages would be reduced and employment opportunities increased as a result of the project's full support of the Government's strategy to develop manpower required at various skill levels. The annual output of the project institutions when in full operation would be about 1,300 skilled personnel--500 craftsmen, 300 lower technicians and 500 technicians. This output would be equivalent to about one-third of the projected annual demand for labor in the Commonwealth over the period 1980-90 (para. 1.08).

6.02 The project would provide the job market with better trained personnel with regard to both technical skills and relevance of training to employment/manpower requirements. The project would assist the National Industrial Training Council in the development of recognized trade standards for skilled workers. The project would also promote the development of appropriate curricula for the various technical and vocational training programs, assist the establishment or refurbishing of learning resource centers and supply them with learning materials supportive of technical and vocational training activities, and promote a program of training and upgrading of technical teaching and supervisory staff. These activities are expected to increase parents' and students' awareness and appreciation of the importance of technical and vocational education and training to their country's welfare and development.

6.03 The project would also help strengthen the institutional capacity of the technical/vocational education system. The establishment of a national manpower data base system for the assessment of manpower needs, as well as the strengthening of the manpower services of the educational planning unit of the Ministry of Education, would assist in bringing about a better balance between technical/vocational training and employment. Another significant institutional development supported by the project is the administrative separation of the craft from the technician courses, now taught together at the Soldier Road campus of the College of The Bahamas (COB). The new administrative arrangement would allow the COB to concentrate on the tertiary level of education, enhancing its role as the main source of middle-level manpower of various kinds including technical teacher training. It would also allow the newly established National Industrial Training Council to develop, in close cooperation with industry, appropriate machinery for: (i) the standardization and certification of craft qualifications, (ii) the development of flexible and relevant training programs and their evaluation, and (iii) the overall coordination of the various skill activities to ensure efficient use of human and material resources.

6.04 The project would help distribute training opportunities to less developed areas and low-income families. Craft and lower technician courses offered under the project would be available both in New Providence and in the Family Islands. These training arrangements are expected to reduce the high rate of migration from the Family Islands to New Providence, which takes place, among other things, for purposes of further education and training.

Eventually they would also provide support for the projected development of tourism and other industries on the Family Islands, thus promoting equitable regional development.

Risks

6.05 Two risks are foreseen: (a) project institutions would require additional and upgraded staff in order to function effectively. The Government has given assurances that necessary prompt action on this matter would be taken, but some slippage from the optimal schedule of identifying and training staff is nevertheless possible; and (b) delays in implementation of the physical aspects and technical assistance components may develop, due to lack of previous Bahamian experience in project administration of this sort. The potential impact of any such delays on the project costs is significant under the inflationary pressures prevalent in the country. The proposed employment of various experts and consultants to assist in the implementation of the project, the use of the implementation schedule as a monitoring tool (para 5.03), and intensive supervision at the initial stages of project implementation are intended to minimize these risks.

VII. AGREEMENTS REACHED

7.01 During negotiations the Government gave assurances that:

- (a) the National Industrial Training Council would be legally established, in a way satisfactory to the Bank, by June 30, 1982 (para 3.04);
- (b) a monitoring and evaluation system would be established by the National Industrial Training Council by December 31, 1982, and annual evaluation reports would be sent to the Bank during the period of the project (para 3.04); and
- (c) all specialists and their terms of reference and conditions of service would be acceptable to the Bank, and candidates for the fellowship programs would be selected and placed following criteria and procedures acceptable to the Bank (para 3.13).

7.02 Prior to Board presentation, the Government confirmed to the Bank that designs for the project items of the College of The Bahamas, acceptable to the Bank, have been sufficiently advanced to allow tendering to begin in July 1981 (para 5.04).

7.03 Subject to the above conditions, the proposed project constitutes a suitable basis for a Bank loan of US\$7.0 million to the Government of the Bahamas for a period of 15 years including 3 years of grace.

Comparative Education Indicators

February 3, 1981

ANNEX 1
Table T-1
page 1 of 2

	YR	PUP.	MILLS.	% GNP CAPITA	% GNP EDUCATION	% TOTAL % OF PUBLIC EXP. RECURRENT	% EDUCATION PUBLIC EXP. RECURRENT	LITERACY	ENROLLMENT RATE (%)	COMPLETION RATE (%)	SCHOLARSHIP PER STUDENT	PROGRESS FROM PRI TO SEC	SEC. ENROLLMENT RATE	HIGHER EDUCATION ENROLLMENT RATE	GROSS NATIONAL PRODUCT PER CAPITA		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)		
ADVANCED																	
AUSTRIA	74	7.56	5,620G	5.3Y	8.5EY	24Y	51Y	15Y	99	98	95D	26D	2.00	99D	51D	19D	16.85Y
CANADA	74	23.5	9,170	7.3F	16.7F	25	39	23	99	99	100	21	2.0F	100	92	18	22.00
GERMANY F.R.G.	74	61.4	9,600	5.0F	10.2F	...	...	...	99	90F	100	...	...	100	94	22C	12.00
JAPAN	75	111.6	4,450	4.3E	20.7E	40HY	37UY	11UY	99	99D	99C	25	2.0B	99L	95XY	20C	24.69Y
NETHERLANDS	74	13.9	8,390	9.4F	22.4D	20	35	24	99	96	93	19	2.0F	99	82	13	12.30
NEW ZEALAND	73	3.1G	4,200U	5.2 ...	...	39	24	29	99	99	99	26	...	99	67	19	24.00
NORWAY	74	4.0	8,043	7.2	14.4	54	24	15	99	99	99	16	1.5	99E	62	11	11.00
SWEDEN	76	4.2	8,150	8.8	14.0	23	29	12	99	99	99	16	...	90T	65F	13	30.00C
U.K.	75	50.0	3,780	7.1	13.9	26	41	18	99	99	...	24	2.0	...	68	17	21.00X
U.S.A.	76	210.2	9,700	5.4G	15.4G	...	57**	18	99	98	99	22H	...	99	97	19H	41.00
EUROPE																	
GREECE	73	9.1	2,540	2.6	10.4	37	26	21	80B	99	82D	31	2.0	70E	80	27	15.00
IRELAND	74	3.1G	2,620B	5.1	13.9D	43Y	41Y	14Y	98	108XY	99A	35	...	95A	65XY	19	15.47Y
PORTUGAL	77	7.7	1,850	3.6	15.4	41	21	15	70G	82	60*	19	2.0	75*	35	12	5.00
ROMANIA	75	21.2	1,240	4.0	6.3	36	19	13	98	101X	...	21	...	98	49	22	10.00
SPAIN	74	35.8G	2,990G	2.4H	15.2A	49Y	22Y	15Y	94A	115XY	...	35A	...	...	78XY	30	17.68Y
AFRICA																	
ALGERIA	74	10.5	1,200	7.1	24.7Z	34x	20x	21x	35H	94XX	45K?	37x	4.0X	52K?	33K?	37K	5.00XX
BENIN	74	3.2c	1,000	7.2M	36.0Y	47n	23D	10D	11D	44XY	70H	53Y	25.0B	43B	11XY	39B	0.74Y
BOTSWANA	74	0.8	620	5.4	19.0	48	39	13	35	80X	70	31	2.0	50	20	22	1.50
BURUNDI	74	4.1	1,300	2.7	22.1R	46R	33H	21H	25	23X	45	32	2.0	22	3x	16	0.5
CAMEROON	76	7.7	31x	3.7	21.5	33	43	20	...	60	45	52	4.0	20	8Y	24	0.90CY
C.E.A.R.	74	1.6F	220F	3.0	17.0P	56R	19H	...	...	78XY	25	69Y	...	18	9XY	27BY	0.21Y
CMR	75	4.0	120	3.0	10.0	7H	22	...	15?	24XY	30	65HY	15.0	8	23XY	30	0.01BY
CONGO(TH)	74	1.3F	510F	6.0	19.3	40	32	21	50?	153X	63	63	6.0	48	33X	22	3.40
Egypt	78	30.7	400	5.5	...	30	35	20	44G	73	80	30?	...	62	49	17?	15.00
ETHIOPIA	77	24.0	100	2.4	12.5	44	31	14	10	26	...	50	...	63	8	38	...
GABON	74	0.5F	2,540F	5.0	20.6D	25N	9V	11H	...	100Y	25C	46C	5.0	14A	31Y	21C	0.29Y
GAMBIA	74	0.5	170	3.3	11.5	40	25	6	10	27	90	33	...	42	13	25	...
GHANA	74	9.9F	440F	...	19.7Y	43Y	22Y	20YH	...	60XY	62H	30Y	...	14H	35XY	16LY	1.09Y
GUINEA	76	4.7	180F	4.3NG	...	30	31	30	...	63X	64	45	12.0F	86	13X	26	4.00
IVORY COAST	76	7.0	610	6.8	23.1	33	46	13	9A	50	86	43	7.0	47	17XY	26	1.64Y
KENYA	74	13.3	380	5.9	18.0	71	15	14	45	92	74	40	6.0	41	19	26	1.0
LESOTHO	74	1.3	340	4.3PQ	20.0	41	29	20	52	66	51	49	4.0	65	15	23	0.90
LIBERIA	77	1.7	430	3.1	12.9	23	13	26	30	51X	...	54	4.0	76	24X	16	...
MADAGASCAR	77	6.0	240	4.0	24.0	53	28	19	50	90	33	44	6.0	38	14	23	1.70
MALAWI	74	5.9	201	2.2M	9.5H	40	23	23	25?	59	17X	62X	5.0H	11K	4	20	0.31
MALI	75	3.7F	90F	4.2M	33.0F	44F	37F	18F	10F	22XF	...	48F	9.5F	50F	6X	21	...
MAURITANIA	71	1.3F	320F	4.1Y	20.0Y	...	...	...	10A	17XY	...	22A	...	...	3XY	24A	...
MAURITIUS	74	0.9L	600	4.7	12.1	50	26	6	80C	94	99	24	4.5	90	45	32	1.50
MOROCCO	76	10.6	520	6.3	15.2	39R	46H	13R	28	63X	35	39	6.00	40	20X	21	4.00
NIGER	77	4.9	100	2.8H	12.2P	52	43	5	8	17	50	39	10.0	35	2	24	...
NIGERIA	74	75.0F	340F	4.10Y	24.21Y	23Y	16Y	42Y	...	49XY	...	341Y	...	...	10XY	20CY	0.48Y
RWANDA	73	4.1F	100F	3.2C	18.0D	...	...	...	23	52	...	51	...	...	2	13	0.23CY
SENEGAL	77	5.2	420	5.0	23.0	46	34	20	10	32	...	49	10.0	20	10	21	1.5
SIFERRA LEONE	73	3.0F	200F	3.4	23.4	51	36	30	15?	34X	45	32	4.0E	68	13X	21	0.53BY
SUDAN	78	4.0	185	2.0	11.0	55	10	21	50	44	...	32	4.0	40	5	15	1.00
SUDAN	76	15.9	290	4.5	19.4	48	36	16	20	34	74	33	3.8	33	14	24	1.24
SWAZILAND	78	0.5	500	6.1H	12.2	37	33	23	65	92X	49	37	4.0H	66	32X	20	2.00X
TANZANIA	78	17.1	230	6.8N	15.8	43	19	10	60G	96	87	58	3.0	9	4	20U	0.38
TOGO	77	2.4	300	5.5	26.5	30	26	21	18	74	40	54	6.0	52	-	44	2.00
TUNISIA	73	3.7G	800G	6.3	23.4	37	43	18	55	72	81	41	6.0	31	14	21	3.00
UGANDA	75	11.0	230	3.40Y	15.7DY	34EY	40EY	22EY	25A	53XY	...	34EY	...	14A	6XY	21A	0.56Y
UPPER VOLTA	77	5.8	118	3.4	23.9	31	16	32	5C	13	23	51	24.0	19	2	25	1.0
ZAMBIA	76	25.0	140	6.0	22.0	49	26	25	15	80X	44	42X	2.0	41	13X	27	1.00X
ZAMBIA	76	5.1	440	6.8	15.9	54	22	22	39	97X	80	49	7.0	21	16	23	1.50
CENTRAL AMERICA AND THE CARIBBEAN																	
BAHAMAS	74	0.2	2,780	6.5X	14.1	36	36	11	93	99	97	24	4.0	97	75	19	...
BARBADOS	76	0.2	1,620	8.1	22.1	43	31	10	99	106X	99	21	3.0	99	94X	17	...
COSTA RICA	74	2.1	1,645*	6.6	33.0*	37D	27U	30	90D	93	77	32	...	77	39*	19	13.00X
CUBA	78	9.5	1,000	8.0	11.0	...	...	...	96	98	88	22	2.7	98	65*	15	15.00
DOMINICAN REP.	74	4.8G	790G	3.0	13.9	42	24	22	51	80	17	54	3.0D	63	14	24	7.00
EL SALVADOR	77	4.1	570	4.0	27.2	64	8	27	62	68X	32	39	2.2	41	23	21	7.00
GUATEMALA	73	6.2G	700G	1.9	16.0	55	23	14	47	64	26	35	3.0	69	8	25	4.09Y
HAWTI	76	4.7	200	1.0	8.0	61	21	11	20B	25F	13	50H	3.0	62	4	...	0.7
HONDURAS	75	2.9G	400G	4.2G	18.8G	62G	15G	19G	53	78	30	35	3.0	68	11	17	4.00
JAMAICA	76	2.1	1,070	9.9	16.2	37	33	22	86E	91	52	39	4.5	94	64	25	7.58
MEXICO	75	59.9	1,050	3.10D	12.00D	51Y	26Y	12Y	76	112XY	31	46	3.0	63	35XY	23A	8.97EY
NICARAGUA	74	2.3G	700G	2.5	14.2	61	13	13	57	65	21	37	2.0	93	17	24	7.00
PANAMA	78	1.9H	1,220	5.4	...	42H	13H	13	82A	97	82E	32H	3.0	85H	49	34H	20.00
TRINIDAD & T.	77	1.1	2,105	4.5	14.1	48	32	20	95	98	91	30	3.0	49	62	24	...
SOUTH AMERICA																	
ARGENTINA	78	70.7	1,910	4.4	11.4	43H	31G	18H	93	89	52	17	2.0	87	31	8	23.00
BOLIVIA	76	5.8	315F	5.0	17.5F	...	...	...	38	80H	29D	24	5F	...	48	18D	...
BRAZIL	75	110.1H	1,300G	2.8H	12.4	42E	20E	22H	64A	88G	...	27CY	...	...	26G	15CY	6.00H
CHILE	75	10.3G	1,050G	3.8RY	12.5RY	23Y	10Y	56Y	...	119XY	...	35Y	...	...	48XY	...	16.55Y
COLOMBIA	74	24.3G	650G	3.30Y	21.20Y	440Y	220Y	11Y	73	105XY	20	33Y	4.0	90	36XY	14A	6.67Y
ECUADOR	75	7.3G	700G	3.7D	27.7C	...	...	...	69	102XY	...	38C	...	...	38XY	14C	...
GUAYANA	74	0.8F	510F	5.8N	14.7Q	47	35	14	83A	92X	39	33	6.0	19	62X	24	1.00
PARAGUAY	79	3.0G	850X	1.4	14.2	42	17	20	84	82	32	28	1.0	75	22	12	7.00
PERU	75	16.0G	440G	4.20Y	21.70Y	40Y	22Y	15Y	72	111XY	38	390Y	3.0	70	48XY	230Y	14.41Y
URUGUAY	75	2.8H	1,370G	2.5	15.3	46	34	20	94	93X	...	24Y	...	83	...	10	...
VENEZUELA	73	12.3G	2,540G	4.6	19.9	30D	28U	35H	77A	81	...	33	2.4	...	33	...	12.63CY

Comparative Education Indicators

February 3, 1981

ANNEX 1

Table T-1

Page 2 of 2

ASTA AND OCEANIASUMMARY FOR DEVELOPING COUNTRIES:

SYMBOLS:...		A=1970 OR BEFORE		M=CURRENT PRICES		SOURCES:	
-	MAGNITUDE NIL OR NEGLIGIBLE	N=1971		N=GDP		COLUMNS 1 AND 2	WORLD BANK ATLAS
?	QUESTIONABLE	C=1972		P=INCLUDING FOREIGN AID			OR IBRD MISSIONS
*	INCLUDES PART-TIME STUDENTS	D=1973		G=CENTRAL GOVT. ONLY		3 TO 14	IBRD MISSIONS
**	COMBINED WITH PRIMARY	E=1974		R=MINISTRY OF EDUCATION (MOE) ONLY			
***	UNDER REVIEW	F=1975		S=MOE AND STATE GOVT. ONLY			AND/OR UNESCO
		G=1976		T=EXCLUDING CENTRAL GOVT.			STATISTICAL
		H=1977		U=PUBLIC ONLY			YEARBOOK
		K=1978		V=INCLUDING PRIVATE EXPENDITURE			
				X=INCLUDING OVERAGED STUDENTS			
				Y=UNESCO SOURCES			

COMPARATIVE EDUCATION DATA ARE USEFUL IN THE EVALUATION OF VARIOUS EDUCATION SYSTEMS AND ANALYSIS OF RELATIVE STAGES OF EDUCATIONAL DEVELOPMENT BETWEEN VARIOUS COUNTRIES. HOWEVER, ON THE BASIS OF THE PRESENT DATA, CROSS-NATIONAL COMPARISON SHOULD BE APPROACHED WITH GREAT CAUTION. DATA PRESENTED IN THE ABOVE TABLE HAVE BEEN COLLECTED LARGELY BY THE BANK MISSIONS FROM GOVERNMENT SOURCES; THE REMAINDER ARE STAFF ESTIMATES OR DATA FROM UNESCO. EFFORTS HAVE BEEN MADE TO STANDARDIZE DEFINITIONS AND WITHIN LIMITS, TO CHECK THE ACCURACY OF THE DATA. NEVERTHELESS, SUCH DATA ARE STILL IMPERFECT IN SEVERAL RESPECTS AND THE BANK IS WORKING TO IMPROVE THEM PROGRESSIVELY ON THE OCCASION OF ITS OPERATIONAL WORK. IN THE USE OF THESE DATA, THE FOLLOWING QUALIFICATIONS SHOULD BE BURNED IN MIND:

- (1) "EDUCATION" AS DEFINED IN THE TABLE INCLUDES ALL EDUCATION AND TRAINING, FORMAL AND NON-FORMAL;
 (2) "PRIMARY EDUCATION" REFERS TO EDUCATION AT THE FIRST LEVEL AND "SECONDARY" EDUCATION REFERS TO ALL EDUCATION AT THE SECONDARY LEVEL REGARDLESS OF TYPE (E.G. GENERAL OR TECHNICAL);
 (3) "LITERACY RATES" (COL. 6) ARE OBTAINED FROM COUNTRY CENSUSES, IN MANY COUNTRIES THEY ARE ONLY APPROXIMATIONS AND IT IS DOUBTFUL THAT ANY UNIFORM DEFINITION OF "LITERATE" HAS BEEN FOLLOWED CONSISTENTLY;
 (4) "PUBLIC EXPENDITURE IN EDUCATION" (COLS. 3, 4 AND 5) REFER TO ALL CAPITAL AND RECURRENT EXPENDITURES DEVOTED TO EDUCATION BY PUBLIC AND QUASI-PUBLIC AGENCIES;
 (5) "ENROLLMENT RATIOS" (COLS. 7, 12 AND 14) REFER TO SCHOOL YEAR AND MEAN THE PERCENTAGE OF ELIGIBLE CHILDREN ENROLLED FULL-TIME IN THE APPROPRIATE SCHOOL, PUBLIC AND PRIVATE BY LEVEL, THEY ARE OFTEN SUBJECT TO A WIDE MARGIN OF ERROR IN THE DEVELOPING COUNTRIES DUE TO VARIATION IN THE ACCURACY OF BASIC DATA (I.E. AGE-SPECIFIC POPULATION AND ENROLLMENTS), ENROLLMENT FIGURES FREQUENTLY ARE HIGHER THAN THE NUMBER OF STUDENTS ACTUALLY IN SCHOOL. OVERAGED STUDENTS WHOSE INCLUSION IS INDICATED BY FOOTNOTES ALSO CAN INFLATE THE RATIOS.

VOCATIONAL AND TECHNICAL EDUCATION PROJECT

Technical Assistance Implementation Schedule

	Total	1982	1983	1984	1985
			man-months		
<u>SPECIALISTS</u>					
<u>Industrial Training Center</u>					
Organization and Structure of Industrial Training Council (1x12 months)	12	6	6	-	-
Trade Testing (1x6 months)	6	-	6	-	-
<u>College of The Bahamas</u>					
Methodology of Engineering Trades (1x12 mos.)	12	-	6	6	-
Electrical Technology (1x12 months)	12	-	-	12	-
Mechanical Technology (1x12 months)	12	-	-	12	-
Measurement and Evaluation (1x12 months)	12	-	-	12	-
Educational Technology (1x3 months)	3	-	3	-	-
Maintenance (1x3 months)	3	-	3	-	-
<u>Hotel Training College</u>					
Curriculum Development of Hotel Trades (1x3 months)	3	-	3	-	-
<u>TOTAL</u>	<u>75</u>	<u>6</u>	<u>27</u>	<u>42</u>	<u>0</u>
<u>FELLOWSHIPS</u>					
<u>Industrial Training Center</u>					
Upgrading of Teaching Staff (10x6 months)	60	18	18	18	6
<u>Senior Secondary Schools</u>					
Updating Staff of Technical Subjects (16x3 months)	48	12	24	12	-
<u>College of The Bahamas</u>					
Technical Education (1x24 months)	24	-	6	12	6
Electrical Technology (1x24 months)	24	6	12	6	-
Mechanical Technology (1x24 months)	24	6	12	6	-
Business Education (1x18 months)	18	6	12	-	-
Home Economics (1x18 months)	18	6	12	-	-
Curriculum Development/Evaluation (1x24 months)	24	6	12	6	-
Educational Technology (1x12 months)	12	6	6	-	-
Maintenance (1x6 months)	6	6	-	-	-
Study tours of Head of Departments and Staff (4x3 months)	12	3	3	3	3
<u>Hotel Training College</u>					
Curriculum Development (1x12 months)	12	6	6	-	-
Marketing Research (1x12 months)	12	-	6	6	-
Hotel Industry Development (1x6 months)	6	6	-	-	-
Industrial Psychology (1x3 months)	3	-	-	3	-
Study tour (1x3 months)	3	3	-	-	-
<u>Department of Nursing Education</u>					
Training of future staff (2x24 months)	48	12	24	12	-
<u>Ministry of Education</u>					
<u>Educational Planning:</u>					
Economist/Data Analyst (1x18 months)	18	6	12	-	-
Economist/Manpower Planner (1x18 months)	18	-	6	12	-
Institutional Planner (Building) (1x3 months)	3	3	-	-	-
<u>Curriculum Development</u>					
Technical Subjects Supervisor (1x12 months)	12	6	6	-	-
Science Subjects Supervisors (1x12 months)	12	-	6	6	-
<u>Educational Evaluation</u>					
Psychometric Studies (1x24 months)	24	6	12	6	-
Program Evaluation (1x24 months)	24	-	6	12	6
<u>Learning Resource Center</u>					
School Broadcasting (1x12 months)	12	6	6	-	-
School Libraries (1x4 months)	4	4	-	-	-
Media Equipment Maintenance (1x3 months)	3	3	-	-	-
Second Recording for Broadcasting (1x3 mos.)	3	-	3	-	-
Photography (1x2 months)	2	-	2	-	-
<u>TOTAL</u>	<u>489</u>	<u>136</u>	<u>212</u>	<u>120</u>	<u>21</u>

December, 1980.

THE BAHAMAS
VOCATIONAL AND TECHNICAL EDUCATION PROJECT

Capital Cost Estimates
(in B\$'000)

Items	Constr.	Site Works	Furn.	Equip.	Prof. Fees	Manp. Data Base	Tech. Asst.	Proj. Admin.	Total
Industrial Training Center	140	14	24	301	21	-	-	-	500
Senior High Schools	1,234	115	100	758	179	-	-	-	2,386
College of The Bahamas	2,319	233	162	689	482	-	-	-	3,885
Hotel Training College	942	94	63	337	137	-	-	-	1,573
Department of Nursing Edu- cation	905	136	57	207	138	-	-	-	1,443
National Man- power Data Base	-	-	-	-	-	50	-	-	50
Technical Assistance	-	-	-	-	-	-	1,208	-	1,208
Project Admin- istration	-	-	-	-	-	-	-	600	600
Base Cost	5,540	592	406	2,292	957	50	1,208	600	11,645
Physical Con- tingencies (12%)	830	60	40	229	96	5	121	60	1,441
Sub-total	6,370	652	446	2,521	1,053	55	1,329	660	13,086
Price Contin- gencies (40% average)	3,185	324	137	772	442	25	173	264	5,322
<u>Total Cost</u>	<u>9,555</u>	<u>976</u>	<u>583</u>	<u>3,293</u>	<u>1,495</u>	<u>80</u>	<u>1,502</u>	<u>924</u>	<u>18,408</u>

Source: Mission estimates
December 1980

THE BAHAMAS

VOCATIONAL AND TECHNICAL EDUCATION PROJECT

Disbursement Schedule

(US\$'000)

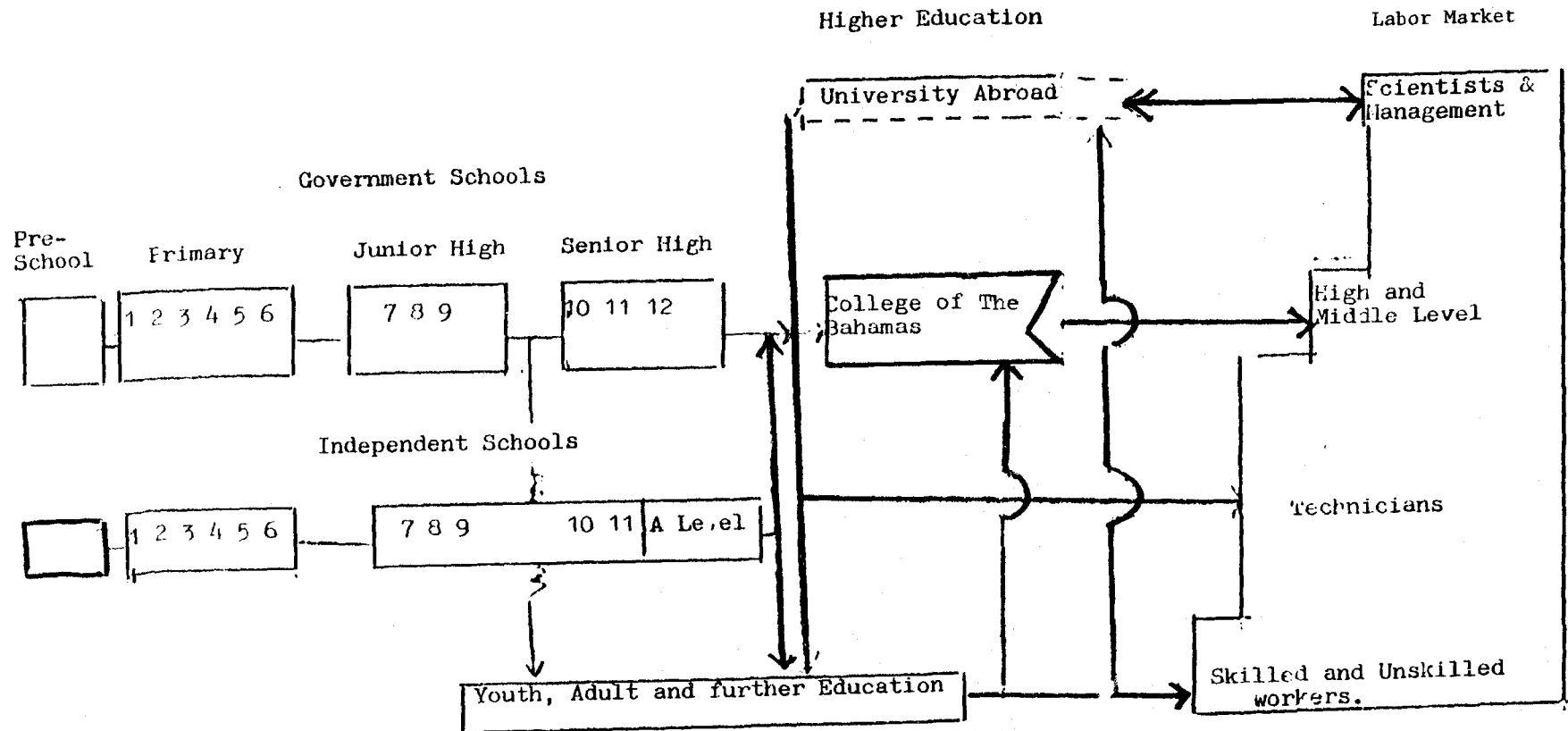
Fiscal Year	Semester	Disbursements	Accumulated Disbursements	Undisbursed Balance <u>1/</u>
1982	(July 81-Dec. 81)	100	100	6,900
	(Jan. 82-June 82)	200	300	6,700
1983	(July 82-Dec. 82)	200	500	6,500
	(Jan. 83-June 83)	300	800	6,200
1984	(July 83-Dec. 83)	300	1,100	5,900
	(Jan. 84-June 84)	1,400	2,500	4,500
1985	(July 84-Dec. 84)	1,700	4,200	2,800
	(Jan. 85-June 85)	1,800	6,000	1,000
1986	(July 85-Dec. 85)	1,000	7,000	-

1/ At the end of each semester.

Source: Mission estimates
December, 1980.

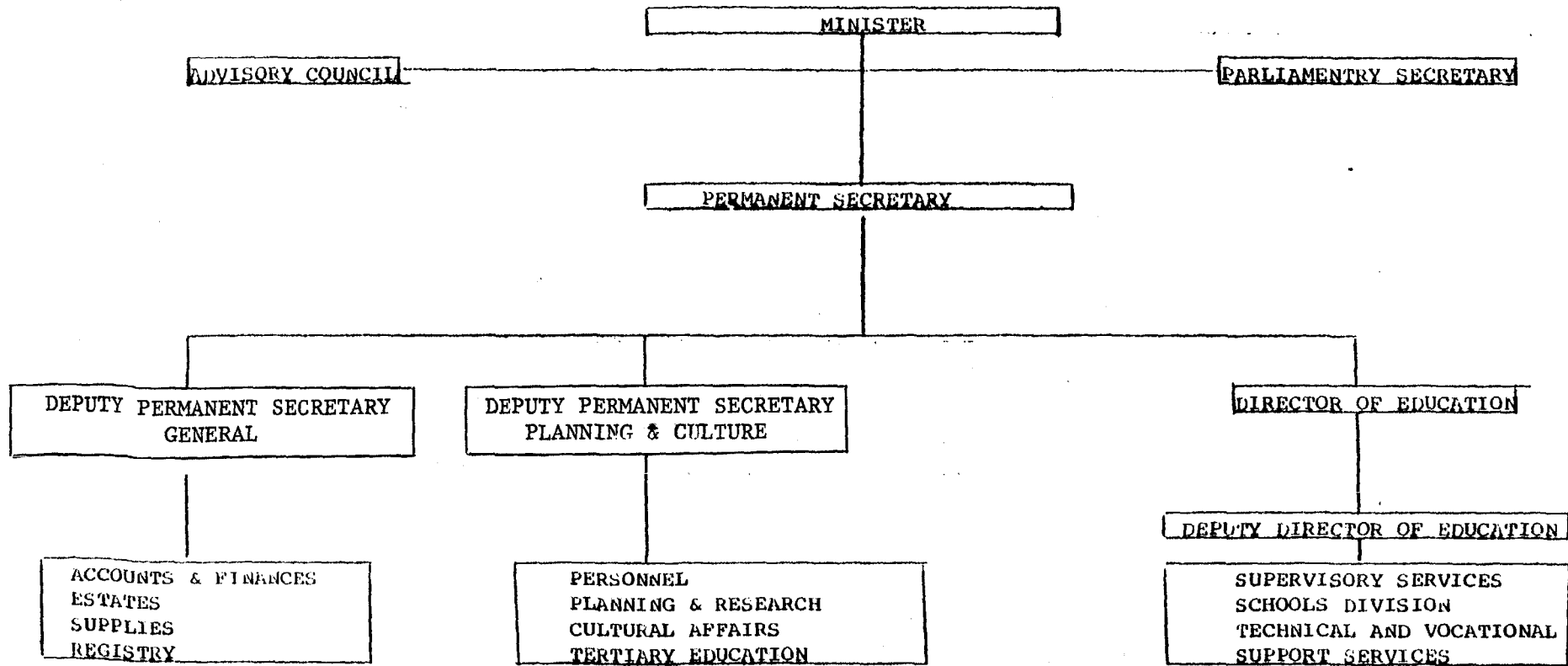
THE BAHAMAS
VOCATIONAL AND TECHNICAL EDUCATION PROJECT

Structure of the Education System



Source: Ministry of Education and Culture
December, 1980.

THE BAHAMAS
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Organization of the Ministry of Education and Culture



Source: Ministry of Education and Culture
 December, 1980.

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Project Implementation and Expenditures Schedule

IMPLEMENTATION SCHEDULE	YEARS QUARTERS	1980			1981			1982			1983			1984			1985					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<u>Construction</u>		US\$Millions																				
I. College of The Bahamas	2.55	**	**	÷##	\$=x	xxx	xxx	xxx	xxx	xxx	xx											
II. Industrial Training Center	.15				*##	#+			\$	=xx	xxx	x										
III. Department of Nursing Education	1.04				**	+++	#=#		=xx	xxx	xxx	xxx	xxx									
IV. Hotel Training College	1.04					*		***	+##	#=#	xxx	xxx	xxx	xxx	x							
V. Senior High School (1,3,4)	1.35									#=#	xxx	xxx	xx									
(2)										*#	#+	=xx	xxx	xxx								
(6)										*	#	\$	=x	xxx	xxx	x						
(8)												*	#	\$	=x	xxx	xxx					
(10-12)													*	#	\$	=x	xxx	xxx	x			
TOTAL	6.13																					
<u>EXPENDITURE SCHEDULED</u>																						
Construction	6.13	-	-	-	-	.12	.25	.93	1.05	.61	.64	.66	.47	.47	.47	.32	.08	.06				
Furniture and Equipment	2.70							.17	.26	.47	.40	.13	.50	.42	.35							
Professional Services	.95			.17	.15	.15	.06	.03	.06	.15	.09	.02	.02	.01	.01	.01	.01	.01				
Technical Assistance /a	1.26						.06	.06	.06	.06	.13	.13	.14	.14	.12	.12	.12	.12				
Project Administration	.60		.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
SUB-TOTAL	11.64	-	.03	.20	.18	.30	.40	1.22	1.46	1.32	1.29	.97	1.16	1.07	.98	.48	.24	.22	.03	.03	.03	.03
Contingencies	6.36		.02	.11	.13	.19	.19	.69	.87	.69	.69	.51	.64	.57	.51	.25	.13	.13	.02	.02	.02	.02
PROJECT TOTAL	18.00	-	.05	.31	.31	.49	.59	1.9	2.29	2.01	1.98	1.48	1.80	1.64	1.49	.73	.37	.35	.05	.05	.05	.05
LOCAL FINANCING	11.00		.05	.16	.16	.34	.44	1.51	1.73	1.11	1.08	1.08	.80	.74	.79	.53	.17	.15	.02	.02	.03	.03
IBRD	7.00			.15	.15	.15	.15	.40	.50	.90	.90	.40	1.00	.90	.70	.20	.20	.20	.03	.03	.02	.02

/a Includes Manp. Data Base (US\$.05 million)

LEGEND: * Preliminary design
+ Review of design
Design development and construction documents

\$ Tendering of bids
= Review of bids and award of contracts
x Construction phase

Source: Mission and Project Unit Estimates
December, 1980.

THE BAHAMAS

VOCATIONAL AND TECHNICAL EDUCATION PROJECT

Selected Documents and Data Available in the Project File

A. Selected Sector Reports

- A 1. White Paper on Education: Government of The Bahamas, 1971.
- A 2. Educational Development in an Archipelagic Nation: Government of The Bahamas, September, 1974.
- A 3. Education for National Progress: Government of The Bahamas, June, 1976.
- A 4. Economic Memorandum on The Bahamas: World Bank (Report No. 2042-BM), May, 1978.
- A 5. Education Sector Memorandum (Draft): World Bank, LCPED, March 6, 1979.
- A 6. Economic Memorandum on The Bahamas (Draft): World Bank, April, 1980.

B. Selected Project-Related Reports and Studies

- B 1. Population Projections for Bahamas until 1980: Department of Statistics.
- B 2. The Labour Force Report 1973, 1975, 1977 (unofficial), 1979 (preliminary): Department of Statistics.
- B 3. Quarterly Statistical Summary, 2nd Quarter 1978: Department of Statistics.
- B 4. Education Statistics 1975-76: Ministry of Education and Culture.
- B 5. Directory of Schools: 1974/1975/1976/1977/1978: Ministry of Education and Culture.
- B 6. The Advisory Committee on Technical Education: Government of The Bahamas, 1975.
- B 7. College of The Bahamas: Calendar 1978-1979.
- B 8. Teaching in the Commonwealth of The Bahamas: Ministry of Education and Culture, January 6, 1978.
- B 9. Bahamas Hotel Training Council: Concluding Report. March 30, 1979.
- B 10. A Review of Technical and Vocational Education in The Bahamas (Draft): World Bank, LCPED, May/June 1979.

C. Selected Working and Implementation Papers

(Prepared by the World Bank Appraisal Mission)

- C 1. Project Objectives and Components
- C 2. The Industrial Training Center
- C 3. Extensions to Senior High Schools for Technical Courses
- C 4. Extensions to the College of The Bahamas:
 - (i) Division of Technical Studies
 - (ii) Division of Business and Administration Studies
 - (iii) Technical Teacher Education Unit
 - (iv) Library/Learning Resource Center
- C 5. Improvement and Extension of the Hotel Training College
- C 6. Establishment of a new Department of Nursing Education
- C 7. Establishment of a National Manpower Data Base System
- C 8. Technical Assistance
- C 9. Project Implementation

Attachments

- A. Technical Note on the Bahamian Labor Force Surveys
- B. Education Unit Costs



- INDUSTRIAL TRAINING CENTER
- COLLEGE OF THE BAHAMAS
- HOTEL TRAINING COLLEGE
- DEPARTMENT OF NURSING EDUCATION
- SENIOR HIGH SCHOOLS

1	GOVERNMENT	7	ROCK SOUND
2	C. C. SWEETING	8	GOVERNOR'S HORBOUR
3	A. F. ADDERLY	9	EXUMA
4	R. M. BAILEY	10	NORTH ANDROS
5	HAWKS BILL	11	CENTRAL ANDROS
6	EIGHT-MILE ROCK	12	SOUTH ANDROS

✈ INTERNATIONAL AIRPORTS
✈ MAJOR AIRFIELDS
✈ MINOR AIRFIELDS