

PROJECT FOR THE PROFESSIONALIZATION OF NURSING PERSONNEL

(BR-0305)

EXECUTIVE SUMMARY

Borrower:	Government of Brazil	
Executing agency:	Ministry of Health	
Amount and source:	IDB:	US\$185 million
	Local counterpart contribution:	<u>US\$185 million</u>
	Total:	US\$370 million
Financial terms and conditions:	Amortization period:	25 years
	Disbursement period:	4 years
	Grace period:	4 years
	Interest rate:	variable
	Inspection and supervision:	1%
	Credit fee:	0.75%
	Currency:	U.S. dollar (multicurrency pool)
Objectives:	<p>The aim of the project is to improve the quality of outpatient and inpatient care through the professionalization of auxiliary personnel, particularly in establishments under contract with the Unified Health System (SUS) to provide care to the low-income population. It is intended to: (i) reduce the shortage of skilled nursing auxiliaries; (ii) promote the development of this segment of the health-care labor market; (iii) strengthen the regulatory framework and processes that ensure its effectiveness, by correcting existing weaknesses; and (iv) create technical and financial conditions for the sustainability of training for auxiliary nursing personnel.</p>	
Description:	<p>The project will achieve these objectives through its two components, which are: (i) schooling and professionalization of nursing personnel; and (ii) institutional strengthening of the agencies that regulate technical human resources training for the SUS.</p> <p>Under the first component, subprojects will be submitted to a competitive fund to finance professionalization and schooling courses (primary education equivalence certificate) for unskilled nurse's aides. The courses will be provided by establishments that: (i) offer both professionalization and schooling in association with providers that employ nursing auxiliaries, and - if they do not have teaching capacity</p>	

of their own – with training organizations committed to the project; and (ii) demonstrate that their proposal meets a specific demand of nurse's aides in the project area.

The second component will seek to ensure the viability and sustainability of the first component's activities by preventing future hiring of unskilled nurse's aides, expanding opportunities for the training of nursing auxiliaries, and introducing systems to raise and regulate the quality of their professional training. To achieve this goal, special attention will be given to sustainable mechanisms for regulating the market and financing the professionalization of nurse's aides during and after the program. The key elements of this process are: (i) teacher training for the instructors and evaluators needed for the professionalization courses and the skills certification system; (ii) establishment of information systems on training and employment opportunities; (iii) design and implementation of a skills certification system; and (iv) consolidation of quality reference training centers with operational, administrative and financial autonomy. Additionally, the program, as part of its financing structure, includes a formal commitment by the Workers' Support Fund to finance training activities assigned priority by the Ministry of Health.

**Bank's country
and sector
strategy:**

The project will contribute mainly to the following elements of the Bank's current health strategy, as described in the country paper for Brazil: (i) combining the efforts of public and private institutions to improve health; and (ii) strengthening public regulatory capacity. Its specific strategy is to intervene in the training market and the regulatory framework for nursing auxiliaries, addressing the root causes of such a large mass of unskilled nursing personnel (see paragraphs 1.1, 1.5, 1.6, and 1.7).

**Environmental
and social
review:**

The Committee on Environment and Social Impact approved the project and indicated that no subsequent report or action would be required. It recommended that the courses include topics relating to reproductive health (see paragraph 4.12).

Benefits:

The main benefits of the project are: (i) improved quality of inpatient and outpatient care thanks to the professionalization of nursing auxiliaries; and (ii) establishment of an institutional base and favorable market conditions for the training of technical health-care personnel after PROFAC has been completed.

Risks:

Trained nursing auxiliaries may move away, making it necessary to continue hiring unskilled nurse's aides. Given the segmentation of the labor market, nursing auxiliaries could move from rural or less populated areas to the larger cities, where salaries are higher. This would force institutions suffering such a loss of personnel to continue hiring unskilled personnel. The eligibility criteria focus special attention on professionalization subprojects in less populated areas and on

continuing the regulatory role played by professional associations, which has proven effective in recent years in restricting the open hiring of unskilled nursing personnel.

Cultural resistance to the certification and information systems. In a culture traditionally centered on the prequalification of teaching institutions, these innovations could generate opposition within the nurses' association (and other professional associations) and training institutions. To minimize this risk, these associations will be actively involved in designing the certification system, and training providers will be involved in designing the public information system, among other measures.

**Special
contractual
clauses:**

The following would be conditions precedent to the first disbursement:

- a) Submission of the signed agreement between the executing agency and the agency that will contract for goods and services (paragraph 3.7);
- b) Submission of evidence of the official entry into force of the Operating Regulations (paragraph 3.8(a));
- c) Submission of signed contracts with selected regional agencies (paragraphs 3.8(c) and 3.11) representing 50% of the nurse's aides identified;
- d) Submission of the agreement with the Bank of Brazil for the registration of students in project courses (paragraph 3.8(b)) [condition already fulfilled];
- e) Submission of the agreement signed with the agency that will carry out the teacher training subcomponent (paragraph 3.8(g)).

As a condition precedent to the transfer of resources to any subproject, the agreement signed by the executing agency and the regional agency responsible for the subproject area in question is to be presented to the Bank in advance.

As a condition precedent to the first disbursement under the skills certification subcomponent, evidence is to be presented of the planned establishment of the consultative and technical boards envisaged for the certification system (paragraph 3.32).

Once 50% of the component I resources have been committed, the restriction relating to proportionality within the territory of a given state will be lifted (paragraph 3.2), although no state may receive more than 35% of the total resources (paragraph 3.2).

Poverty-targeting and social sector classification:	This operation qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704)
Exceptions to Bank policy:	None
Procurement:	Since procurement relates mainly to training services, the loan agreement includes an Annex D covering the project's requirements and Bank policies (paragraph 3.42). The procedures outlined in Annex D will apply to subprojects under component I. Since the subprojects will be awarded on a multiple basis according to quality criteria, a fixed unit price will be used (paragraph 3.42 (iii)). International competitive bidding will be used for procurements valued at over US\$1.5 million. The standard policies of the Bank, presented in Annex B, will apply for the procurement of related goods and services, and those in Annex C will apply for the contracting of consulting services (paragraph 3.43). It is recommended that an agency be hired directly to administer the contracting of consultants and other required activities, in accordance with chapter GS-403 of the Procurement Manual (paragraph 3.6).
Disbursements:	Given the decentralized nature of project implementation, the involvement of some 10 regional agencies and 300 operators throughout the country, and the cost of the activities contemplated, a revolving fund of 10% of the loan amount is recommended (paragraph 3.47). The fund will be replenished against consolidated documentation – to be submitted by the project management unit – on the spending, components, and coexecuting agencies of the project.

I. FRAME OF REFERENCE

A. Situation of nursing personnel and the labor market

- 1.1 Brazil has suffered from a chronic shortage of nursing personnel for more than 12 years, particularly with regard to skilled nursing auxiliaries. For this reason, many nursing auxiliary functions are performed by less qualified personnel, known as *atendentes*, or unskilled nurse's aides. These aides are being called upon to perform increasingly complex tasks and to make technical decisions for which they have not been formally trained, thus placing patients at risk.
- 1.2 In 1998, the number of workers in this situation in Brazil's health-care system was estimated at approximately 230,000. Moreover, some 40% of the workers who perform nursing auxiliary functions without the appropriate qualifications have not completed primary education and scarcely one fifth have finished secondary school. Under a law passed in 1986 that regulates the nursing professions, this situation is illegal because the period prescribed for these aides to become nursing auxiliaries has expired. To ensure the quality of service and patient safety, the Government of Brazil has approached the Bank for funding to professionalize unskilled nurse's aides who are acting as nursing auxiliaries without the proper training, and to establish mechanisms to ensure in the future that all personnel working in this capacity have the necessary qualifications.

TABLE I-1
Nursing Personnel by Category
1983-1997¹

Year	Nurses	Practical nurses	Nursing auxiliaries	Unskilled nurse's aides ²
1983	25,889	19,935	64,289	194,174
1992	41,501	36,433	236,415	142,356
1997	71,933	64,173	293,794	144,665

- 1.3 Nursing auxiliaries are members of the health-care teams and are employed in hospitals, where they are supervised by university-trained nurses, and in outpatient departments, where supervision is less evident. In hospitals, they are involved in inpatient care (including hygiene, feeding, vital signs, and injections), preparing surgical instruments, and providing guidance for treatment. In outpatient centers, they receive patients, deliver medications, provide guidance for the use of those medications and for the examinations that are indicated, and perform prevention and treatment activities. According to reports written by the employers, owing to the scarcity of assistance from professional nurses, auxiliaries are left to perform

¹ Girardi, Sabado N., "Employment, Salary, and Demand for Professional Qualification of Auxiliary Workers in the Nursing Sector: Survey of Health-care Institutions", Brasilia, 1999. Mimeograph.

² A high percentage of the 230,000 nurse's aides is classified in other occupational categories.

very complex procedures, such as inserting catheters and venocclisis. Errors that are attributable to a lack of training in these activities can have serious consequences (perforation of the bladder and overdoses of medications, for example).

- 1.4 This set of functions – at the community and hospital level – is reflected in a job profile of nursing auxiliaries developed by the Ministry of Health in cooperation with the Ministry of Education and the Pan American Health Organization. The profile was formulated in terms of skills, in order to: (i) create a national standard for training auxiliaries and (ii) establish a reference framework for updating the plan of studies for training nursing auxiliaries, and implementing the skills certification system proposed herein (component II). The skills identified have been verified in accordance with current demand in the labor market through a process of consultation with representatives of workers, employers, and technical health-care personnel.

1. Demand

- 1.5 Nurse's aides tend to share certain fairly well-defined sociodemographic characteristics. Eighty-seven percent of all aides are women. Their average age is 39, with approximately 9% above the age of 50, and 67% under the age of 40. The levels of schooling tend to be low: 40% have not completed primary education. An inverse relationship between schooling and age is evident. The older the person, the lower the level of instruction. Similarly, more time in the same job (up to nine years) is noted among those with four years of schooling or less, while the overall average is 5.5 years. In summary, this group is comprised mainly of women, who tend to have a low skills level and little schooling, are middle-aged, and have relatively little job mobility.
- 1.6 The **shortage of skilled nursing auxiliaries** and the resulting large number of unskilled nurse's aides is the direct consequence of interrelated factors, especially: (i) distortions in the health-care labor market; and (ii) inadequate public-sector regulatory capacity in this market.
- 1.7 The labor market distortions stem from a *lack of funds* to finance the training of nursing auxiliaries in the numbers and with the skills level required for the expansion of Brazil's health-care system. The individuals who enter this segment of the market come from low-income families, and few, if any, can finance the entire cost of an education, which runs to approximately 1,000 hours of training. Employers, for their part, hesitate to finance the education of unskilled personnel since, once they are trained, these individuals can move to other health-care institutions and the return on investment in human capital, from the business perspective, is lost, even though it continues to be felt at the level of society. These market constraints on the development of appropriately trained auxiliary personnel have not been corrected by existing public subsidies, which have been insufficient to bring the supply of qualified auxiliary nursing personnel into line with the

growth in demand. These subsidies are drawn from the country's Workers' Support Fund, and have been used to finance training programs that are not recognized by the Ministry of Health as offering the course content and scope required to properly train nursing auxiliaries.

- 1.8 The inadequacy of public-sector regulatory capacity relates to the difficulties encountered by health-care sector officials in supervising establishments and enforcing regulations on the hiring of unqualified personnel in this sector. The authorities lack sufficient resources to verify personnel qualifications in the country's health-care institutions, with the exception of larger establishments in major cities. Additionally, existing regulations and defective financing arrangements (payment delays, for example) have placed pressures on health-care establishments and have contributed to the loss of highly qualified personnel. This has left them trapped between prohibitions against hiring unqualified personnel, on the one hand, and the lack of resources to hire qualified personnel on the other. As a result, unqualified personnel are often hired for administrative or secretarial positions but, in practice, perform nursing functions.
- 1.9 Within this context, delegating some of the regulatory functions to professional associations has filled part of the void described above. Thus the Federal Nursing Board and the regional nursing boards have primarily been registering professionals and monitoring compliance with legislation. These organizations are made up of members elected from among the nursing professions in each state and at the national level. They depend entirely on contributions from their members, since they do not receive any subsidies from the State. There is evidence that the pressure health-care institutions are feeling to enforce standards relating to the qualifications of auxiliary personnel comes mainly from these professional boards (see paragraph 1.18).
- 1.10 Nurse's aides, for their part, have shown a strong interest in taking advantage of existing training programs, since the sector is hiring fewer and fewer untrained personnel, and this has begun to threaten their job stability and limit their mobility to other related jobs. The current salary difference (national average with significant regional variations) between an unskilled nurse's aide and a nursing auxiliary is 30%. Although in practice aides are unlikely to receive increases of this magnitude immediately upon completing their training, the difference and the improved job mobility gained from professional training provide sufficient incentive for their participation in courses of the type proposed here. This has been true despite the considerable cost these courses represent for nurse's aides – about US\$35 per month per person.³

³ This figure is an average based on information drawn from 2,259 interviews with representative samples of students enrolled in nursing auxiliary courses in the states of São Paulo, Rio de Janeiro, Ceará, and Paraná.

- 1.11 It is in the interest of employers of nursing auxiliaries to ensure that they are qualified, in order to: (i) avoid sanctions for violating the law against hiring unskilled nurse's aides; (ii) improve the quality of care, and (iii) reduce costs attributable to unqualified personnel. Most employers questioned in a national survey⁴ believed that the enforcement of auxiliary training requirements and the regulations against hiring unqualified personnel have had a positive impact on the quality of health-care services.

2. Capacity for training nursing auxiliaries

- 1.12 Mid-level health-care professionalization courses are currently offered through: (i) the free public system (technical schools of the Unified Health System (ETSUSs) and federal and state technical schools); (ii) the mixed or semiprivate system -- mainly the National Commercial Apprenticeship Service (SENAC) and other schools that charge for their courses; and (iii) professionalization courses offered under agreements between the government and private institutions. This is the case of the National Vocational Education Plan (PLANFOR) coordinated by the Ministry of Labor, which uses public resources from the Workers' Support Fund to finance courses offered by nongovernmental organizations, unions, universities, and private training establishments.
- 1.13 The 27 ETSUS that have operated in 16 states since the 1980s have coordinated the training of only some 23,000 health-care workers in the last eight years, at a rate of 2,875 per year. The mandate of these schools is to coordinate training of the personnel needed by the Unified Health System. Most of the ETSUS have experience in decentralized courses outside the state capitals; they provide the materials, curriculum, and supervision, while theoretical and practical activities are carried out in the participants' workplaces or at nearby health-care services. The courses are taught by professionals working at those services, who temporarily take on this role following brief courses to train them as instructors and supervisors of internships. The advantages of this approach, however, have historically been undermined by: (i) deficiencies in the quality of care financed by the SUS; (ii) low managerial autonomy of the ETSUS as a result of their direct dependence on the SUS; and (iii) limited budgets and managerial capacity.
- 1.14 The Ministry of Health has taken a new approach to the mission and autonomy of the ETSUS, seeking to create a network with independent capacity for technical professional training and teacher training that is able to meet the needs of the health-care sector and to adapt swiftly to changes in the labor market and national health policy. This approach, which breaks with the tradition of in-service training for specific tasks, is consistent with the current reforms of the State and the

⁴ Girardi, Sabado N., "Employment, Salary, and Demand for Professional Qualification of Auxiliary Workers in the Nursing Sector: Survey of Health-care Institutions", Brasilia, 1999. Mimeograph.

education and health sectors at the three levels of government. The aim is to meet the demand within the SUS for qualified mid-level personnel and convert the ETSUS into centers of reference and excellence for teaching and curriculum matters, to guide other professional training institutions in this sector.

- 1.15 Specifically, such a transformation of the ETSUS would involve: (i) expanding the scope of the courses offered to cover other technical occupations; (ii) improving their flexibility, autonomy, accountability, and internal management efficiency; (iii) improving the quality of the services provided; and (iv) evaluating their performance and results. To accomplish this, the ETSUS will need to develop key competencies for entering into agreements and forming partnerships with other organizations, to design and facilitate technological solutions and consolidate their function as centers of excellence in the field of professional health-care training.
- 1.16 SENAC and the Ministry of Labor handle professionalization and re-qualification activities in the health-care sector for some 88,000 individuals each year. During the past two years, various training initiatives have been launched in an attempt to meet the demand for training nurse's aides, combining the pedagogical advantages of the ETSUS with the administrative flexibility of PLANFOR (e.g., in Paraná, São Paulo, Bahia, and Ceará). In addition, these initiatives have the advantage of including schooling courses alongside the professionalization training courses, which enables successful trainees to opt for technical-level training. The present project will draw on these experiences, as well as the experience of the Izabel dos Santos Technical Training School of the State Secretariat of Health of Rio de Janeiro, basic-education resources (e.g., distance learning courses), SENAC remedial courses, and the Education Ministry's adult education program. The Ministry of Health recognizes this initiative, but considers it insufficient from both a quantitative and a qualitative perspective. The excessive number of unskilled nurse's aides in health-care establishments (particularly the smaller ones) justifies this concern.
- 1.17 The overall training capacity in Brazil – combining public-sector providers at the various levels of government and private providers – produces some 12,000 nursing auxiliaries each year. Leaving aside for a moment the problems of quality that may affect some of this supply, it has been estimated that demand within the health-care labor market equals or slightly exceeds this figure annually. In any event, the problem remains of training the pool of unskilled nurse's aides who continue to work in providing services, and for whose training a special effort is required.
- 1.18 Additionally, a serious problem of equity arises in terms of access to training opportunities for workers in different regions. Outside the capitals and main population centers, the availability of training is extremely limited and sporadic. A recent survey of health-care institutions indicates that 47% of the institutions in the different regions of the country (South, Southeast, Northeast, North, Center-West) have encountered increasing difficulty in hiring nursing personnel registered with

the respective regional nursing board. Thirty-eight percent report an insufficient number of courses for nursing auxiliaries and practical nurses in their area of influence, while such courses simply do not exist for nearly 20%.

B. Regulatory framework for professional training and practice

- 1.19 The nursing profession is regulated by: (i) legislation which defines and standardizes the functions of the various professions within this discipline, including nursing auxiliaries and nurse's aides (Law 7,498 of 1986, Decree 94,406 of 1987, and Law 8,967 of 1974); and (ii) delegation by the State, through the Federal Nursing Board (COFEN) and the regional nursing boards (CORENs) (Law 5,905 of 1973). Registration with these boards is what authorizes an individual to work in a health-care service, independent of the training that person has received. The large number of unskilled nurse's aides employed since 1986 who are unregistered and legally ineligible for registration is a reflection of the regulatory inadequacies described above, particularly considering that the legislation prohibiting their hiring has been in force for more than a decade. The nurses' association, in conjunction with the Ministries of Education and Health, is seeking to structure training cycles around the basic skills needed for efficient professional performance and the progressive technical training of health-care personnel.
- 1.20 The Ministry of Education is involved in regulating the professional training of technical health-care personnel, defining the minimum curricular guidelines to be followed in all training institutions and authorizing technical courses through the state education secretariats. The Ministry has begun a revision of the national technical training curriculum guidelines in the nursing field (among others), the outcome of which will be the national basic reference standard for the training of health-care personnel at all levels. The present project will ensure the implementation of these guidelines. Professional training for nurse's aides cannot be addressed by the project, since the Law on Guidelines and Fundamentals for National Education requires that candidates hold a secondary education certificate for training at the technical level. In the case of auxiliaries, however, a transitional resolution allows candidates who have only completed primary education to be certified as nursing auxiliaries.
- 1.21 For the middle-level occupations in Brazil, e.g. workers trained through courses offered by SENAC, the National Industrial Apprenticeship Service (SENAI), and the state technical schools, certification is unnecessary or redundant, given these establishments' high degree of excellence and their near monopoly in the area of professional training. The reputation of these institutions and the good performance of their graduates has served as sufficient recommendation for employers. Nonetheless, with the increase and diversification in the supply of training at the basic and middle levels, a need has arisen for more systematic regulation of the quality of training provided by the increasing variety of training suppliers. Today, there are several initiatives that seek to regulate the market through certification.

Institutions such as the Federation of Industries of Minas Gerais (FIEMG), the Training Secretariat (SEFOR), and the Ministry of Labor, in cooperation with the International Labor Organization, the Ministry of Education, SENAI, and the Força Sindical and Central Única de Trabalhadores labor federations, are involved in these efforts. The initiative proposed here takes advantage of the recent provision under the Law on Guidelines and Fundamentals for National Education (see paragraph 1.20), which assigns the task of regulating the professionalization of basic health-care workers to the Ministry of Health.

- 1.22 In conclusion, regulation today is a complicated process given the number of institutions involved, the lack of supervision regarding compliance with existing legislation, and the lack of incentives to study, with major implications for the quality of service. In light of these problems, the project will invest in strengthening regulatory capacity in this sector by setting up a professional certification system and information systems, as well as strengthening the ETSUS and the state health secretariats as regulatory agencies for the training and employment of nursing personnel.

C. The government's human resources strategy for the health sector

- 1.23 The current human resources policy for this sector places priority on: (i) training family health teams, community health agents, and management training for administrators of state and municipal health-care systems and individual establishments; (ii) strengthening the training sector (schools, teachers, quality control systems); and (iii) expanding information and knowledge. The current aim of the professional-association regulatory bodies is to raise the technical level of nursing auxiliaries and eventually convert them into practical nurses.
- 1.24 In this context, the problem of the unskilled nurse's aides, their lack of qualifications, and their possible impact on health care have been assigned priority in the Cardoso administration's 1999-2002 program. This also responds to the growing concern over job security and status being expressed by nurse's aides within the associations that represent them (National Confederation of Health-Care Workers) and regulate them (COFEN and CORENs), as well as the Ministry of Health.
- 1.25 The government's strategy and this program aim to intervene in the training market and its regulatory framework to attack the root causes of the problem. With respect to the distortions in the health-care labor market, there is clear justification for subsidized nursing auxiliary training, which helps offset the unsatisfactory level of private financing for this type of training. In addition, the use of Workers' Support Fund resources for the program ensures a sustainable institutional response to the financing problem. The very nature of these contributions, which come from employers specifically for the purpose of financing training, by definition introduces the principle of cofinancing into the response being developed. The

training envisaged will also contribute – through a targeted multipronged approach – to the Family Health Program. The program will help, as well, to strengthen the regulatory capacity of health-care sector authorities by improving certification, information systems, and supervisory capacity. By demanding modernization of the management and supervision of nursing personnel, the project is also expected to foster national debate on the new health-care management model.

D. The strategy and experience of the Bank

- 1.26 The operational strategy emphasizes: (i) reform and modernization of the federal and subnational governments; (ii) economic openness and lower costs for doing business in Brazil (Custo Brasil); (iii) addressing social inequality and poverty while improving the efficiency of social spending; and (iv) decentralizing social services and bringing them closer to the community and to civil society.
- 1.27 The Bank's health-care strategy, as outlined in the country paper, focuses on: (i) the lower-income population; (ii) incentives for providing cost-effective primary health-care services; (iii) combining the efforts of public and private institutions to improve health; (iv) support for health-care services at the municipal level; and (v) strengthening the regulatory capacity of the public sector.
- 1.28 Although the project's scope is limited to the area of nursing auxiliary training, its structure and actions are consistent with the strategies outlined above, and with the policies of the Ministry of Health as manifested in the Health Sector Reform Program (REFORSUS). The project will support and promote training and regulatory processes for auxiliary personnel that are essential for the success of REFORSUS efforts to improve the quality of services in the context of decentralization. It would also complement the planned restructuring of the state health secretariats to take the lead role in planning and coordinating human resource training in their respective jurisdictions, as also planned with support from REFORSUS.
- 1.29 The Bank's experience in the Brazilian health sector is based on the Health Sector Reform Program (REFORSUS, 951/OC-BR), which supports fundamental changes in the financing of this sector and improvements in the quality of service. Just as relevant was the Bank's experience with vocational education through the Vocational Education Reform Program (PROEP, 1052/OC-BR), which supports the Ministerial Secretariat of Technical Education, federal, state and community technical schools, and their transformation into reference institutions for integrating young persons and adults into the workplace through basic, technical, and technological courses; and, in Paraná, the Secondary Education Improvement Program (950/OC-BR), which supports technical education centers in association with the private sector. Since both programs are still being implemented, it is too early to draw lessons from them.

E. Summary

- 1.30 In summary, financing and restructuring assistance are needed to facilitate the training of nursing auxiliaries and efficiently regulate the labor market in which they work, given the characteristics of the nursing labor market outlined above. By correcting the most significant market and government flaws that affect the labor market of auxiliary nursing personnel, these actions will help to improve the functioning of that market, the mobility of the individuals currently employed in it, and the institutionalization of shared commitments and responsibilities in an association of trainers and employers of auxiliary personnel, all of which will make for visible improvement in the quality of health care in Brazil.

II. THE PROGRAM

A. Aim and objectives

- 2.1 The aim of the program is to professionalize auxiliary personnel working in establishments – mostly private charitable institutions – under contract with the SUS to provide care for the low-income population, and thus to improve the quality of inpatient and outpatient care in Brazil. The program seeks to: (i) reduce the shortage of qualified auxiliary nursing personnel; (ii) support the development of this segment of the labor market in the health sector; (iii) strengthen the regulatory framework and processes that ensure its effectiveness, by correcting existing weaknesses; and (iv) create technical and financial conditions for the sustainability of training for auxiliary nursing personnel.
- 2.2 Specifically, it aims at: (i) promoting and strengthening the professional training and mobility of auxiliary nursing personnel, granting priority to those currently employed; and (ii) strengthening the capacity to regulate the technical human resources of this sector, by establishing professional certification systems and information systems on the labor market and the opportunities for technical training in health care.

B. Description of the program

- 2.3 The project will achieve these objectives through its two components: (i) professional qualification and schooling of nursing personnel; and (ii) institutional strengthening of the SUS agencies regulating technical human resources training.

1. Component I. Professional qualification and schooling of nursing personnel (US\$307.4 million)

- 2.4 This component will finance cycles of professionalization courses and schooling for unskilled nurse's aides – through subprojects submitted to a competitive fund. The courses will be provided by establishments ("operators") that: (i) offer both professionalization and schooling in association with providers that employ nursing auxiliaries, and – if they do not have teaching capacity of their own – with training organizations that are committed to the project; (ii) demonstrate that their proposal meets a specific demand of nurse's aides in the project area; and (iii) meet the eligibility criteria and quality requirements provided for approval and prioritization of subprojects.
- 2.5 Demand on the part of unskilled nurse's aides will be promoted by the Ministry of Health through a national campaign, and it will be documented through a registration system supported by the Bank of Brazil. Interested nurse's aides will

register at a branch office of the Bank of Brazil, making a symbolic payment and selecting their preferred training establishment. Based on the number of registrations received for each establishment, the subprojects will be configured to respond to a recognized and verifiable demand, supervised by the regional agencies. The project will assume the direct costs of the courses, thereby eliminating the economic barrier that has prevented many unskilled aides from completing their professional qualifications.

- 2.6 Operators that may apply for Fund resources (by submitting subprojects) include technical schools or higher-level schools, professional associations, institutions that provide health-care services, and other establishments that, in concert with similar institutions, offer professionalization and schooling courses in accordance with the eligibility criteria specified in the Operating Regulations and summarized in chapter III (see paragraph 3.21).
- 2.7 The conditions governing the professionalization program include the following:
(i) it would be limited to nursing personnel who have already obtained a certificate of primary education, who are currently employed, are performing nursing functions, and have registered through a branch office of the Bank of Brazil;
(ii) courses of up to 12 months would be required, with a curriculum designed to train multivalent auxiliaries consistent with standards for the training of nursing auxiliaries;
(iii) class size would be 36 to 40 students with a minimum of 20 courses (720 students) and a maximum of 50 courses (2,000 students) per subproject;
(iv) the facilities used would provide workers access to theoretical classes, practical courses, and internships, with real integration between theoretical instruction and in-service, supervised work;
(v) the courses would be taught by trained teachers with at least one technical coordinator for every ten groups, and one supervisor for every six students in clinical internships; and
(vi) remedial coursework would be included, as needed.
- 2.8 Through this process, the aim is to finance the professionalization of up to 225,000 unskilled nursing assistants, including schooling for 42% at an approximate cost of US\$1,100 and US\$173 per student, respectively, based on the experience described in the previous chapter (paragraph 1.16).
- 2.9 **Characteristics of the professionalization and schooling process.** The professionalization courses will have a duration of 1,110 hours, 400 of which will be devoted to practical supervised instruction, which will be implemented in parallel with theoretical class work. The courses must follow the basic curriculum proposal established by the Ministry of Education and revised by the project, which corresponds to the skills profile developed for the certification system (see paragraph 2.4) and to the teaching materials that the project will make available to trainers participating in the various subprojects.

- 2.10 Teaching materials. In order to set standards of quality for the courses and to ensure the sustainability of the project, the teaching materials (printed matter and audiovisual materials) available in the market will be revised, and the production and/or procurement of materials that correspond to the level of training required by the project in terms of quality and relevance will be financed. The final estimated cost for each textbook is approximately US\$8. This material may be updated according to market demand, and will constitute a technical and administrative asset in ensuring the continuance of changes introduced by the project.
- 2.11 Capitation payments. Providers of training services will be invited to submit proposals on the understanding that the preestablished amount to be transferred per student will be US\$1,100 for professionalization and US\$173 for schooling. Such a system of capitation payments is widely acknowledged to be compatible with efficiency in educational programs.
- 2.12 The maximum capitation payments established for the professionalization courses (US\$1,100 per student, equivalent to approximately US\$1 per student-hour) and schooling (US\$173 per student) are based, as a unit cost, on: (i) empirical studies on the direct costs of existing nursing-auxiliary and schooling courses of acceptable quality offered by a variety of public and private institutions in various states and institutional contexts in Brazil; and (ii) an analysis by the project team of the inputs and assumptions applied in calculating the proposed cost, which they found to be consistent with the market price of inputs required for training activities. The unit cost is in line with the cost of training activities financed by the Bank and other agencies in the region.
- 2.13 Schooling. Completion of basic-level school education is required prior to participation in the professionalization courses. Various modes of schooling may be selected (e.g., distance learning, remedial courses of the Ministry of Education or state education secretariats, courses of the SENAC network, or those sponsored by Comunidade Solidária), all of which must be formulated in accordance with the directives of the Ministry of Education and must meet quality and cost standards. The schooling programs available on the market range from 12 to 15 months. Once the schooling course has been completed, students will be evaluated by an examination authorized by the respective state education secretariat or the Ministry of Education; this will be required as a prerequisite for registering for the professionalization course. It will be the responsibility of the operating agency to provide the schooling courses and to certify completion of those courses through an authorized examination. These courses will also be financed on a capitation basis.
- 2.14 Subproject costs eligible for funding will include those relating to instructors, teaching materials, and laboratory equipment for practical courses.
- 2.15 Employer commitment. With a view to promoting the sense of ownership and quality control that are essential to the success of the planned process, the Ministry

of Health will take all necessary and feasible measures in order for the institutions employing the beneficiary trainees to undertake to ensure their regular attendance through flexible work schedules and other arrangements.

- 2.16 Course quality. The instruments provided for promoting and verifying the quality of the professionalization and schooling procedures described above include (in addition to the certification and information systems and the modernization of ETSUS as reference centers of excellence under component II): (i) a set of technical and administrative standards spelled out in the manuals that make it possible to qualify and prioritize subprojects according to their level of quality, in addition to specifying the minimum subject content, duration, practical instruction requirements, qualification and compensation of the institutions and teaching personnel, and the criteria for following up on the performance of individuals trained at each institution participating in the certification process, among others; (ii) mechanisms for verifying these elements by the regional agencies under contract; and (iii) the development and distribution of a set of reference teaching materials that correspond to the skills and aptitudes required of the trainees.

2. Component II. Institutional strengthening of the agencies that regulate SUS technical human resources training (US\$21.6 million)

- 2.17 This component will focus on activities and investments to ensure the viability and sustainability of the effort undertaken in component I, preventing the future hiring of unskilled nurse's aides, expanding the opportunities for training of nursing auxiliaries, and introducing mechanisms and incentives that promote the quality of the training processes. To achieve this goal, special attention will be paid to strengthening sustainable mechanisms for regulating the market and the on-going financing of professional training for nursing auxiliaries (and other technical health-care personnel), during and after implementation of the project. A central element of this process is the formalization, by the project, of the use of Workers' Support Fund resources to finance training activities prioritized by the Ministry of Health, the sustainability of which would be assured by an agreement between the Ministry of Labor/PLANFOR and the Ministry of Health, by the minutes of the respective meeting of the fund's board, and by the multiyear plan proposed by the Executive Branch to the Congress, all of which have already been presented to the Bank.
- 2.18 In order to achieve these objectives, the following actions, grouped into four subcomponents, are necessary: (i) training of the teachers and skills evaluators needed to implement component I and the certification system discussed below; (ii) the design and implementation of a skills certification system for auxiliary nursing personnel; (iii) the design and implementation of an information system concerning the labor market and the training of human resources in the sector; and (iv) the administrative modernization and technical/managerial training of the ETSUS as agents for change in the market for technical and auxiliary personnel training, with technical capacity and functional autonomy enabling them to

influence the market for human resources training in health care as models of quality and curriculum excellence.

a. Subcomponent 1: Teacher training (US\$0.6 million)

- 2.19 Teacher training will make available a contingent of qualified teachers and skills evaluators, ensuring the continuity and sustainability of activities to train and certify middle-level personnel in the health-care field after the project has been completed.
- 2.20 Financing will be provided to train approximately 12,000 health-care professionals with advanced degrees, in order to meet the demand for instructors created by component I of the project. In accordance with the Education Ministry's requirements, the courses will run a total of 540 hours over 5 months. The plan of studies and the teaching materials will be suitable for the specific requirements of the project. The curriculum will also include a skills evaluation module, which will qualify the same group of teachers to act as evaluators in conducting the theoretical and practical examinations to certify nursing auxiliaries' skills (subcomponent 2). This training will be conducted over two years, combining classroom courses and distance-learning activities, supervised (by telephone, fax, or Internet) by specially trained tutors, each of whom will be responsible for 40 students. These activities will be carried out in a decentralized manner, relying on central coordination by an agency specializing in health worker training courses. In the states, these activities will be carried out by nursing schools and other federated institutions.
- 2.21 Users will be charged US\$94 per course, a value that will be computed but not entered into the books for the purposes of the local counterpart contribution. This will enable the participating institutions to continue these efforts after the project is completed.

b. Subcomponent 2: Skills certification (US\$12.8 million)

- 2.22 Financing will be provided for the design and implementation of a skills certification system for auxiliary nursing personnel to set the standard of professional practice in these areas and guide the market for human-resources training in this sector. The certification system will be part of a broader government effort (Ministries of Labor and Education), in conjunction with the International Labor Organization, to create a national certification system made up of decentralized and sector-oriented mechanisms, in which the health-care sector has been singled out as a priority. This certification will set quality standards to be continuously updated to verify the knowledge and minimum skills required for proper practice of the profession. Certification will help regulate the quality of the market for auxiliaries' training, inasmuch as the graduates of courses offered in the market can be certified independently of the training they have received.

- 2.23 Certification will be a major factor in controlling the quality of health-care services and better protecting the consumer. The initial certification of personnel trained under the project will make it possible to validate the program, and will create the foundations for its widespread acceptance within the sector and within the nurses' association (and, eventually, its extension to other professions). After the project, it will function as a voluntary system linked to promotional efforts that will seek to consolidate its acceptance by employers as a requirement for hiring nursing auxiliaries and its inclusion in hospital prequalification criteria. At least during the initial phase, the system will operate in parallel with the existing professional registration system administered by COFEN/CORENs.
- 2.24 The Ministry of Health will receive support from independent, specialized agencies in carrying out the certification activities. The certification diploma will be issued by the Ministry of Health, on the basis of lists of successful candidates provided by the agencies hired. The estimated cost of certification is US\$35 per auxiliary. Eventually, once certification is established in the market, this amount will be charged. The skills certification system will gain prestige and recognition over the course of time, based on the involvement of the Ministry of Health as the leading authority in the sector, the legitimacy and reliability of the testing process, and widespread dissemination of the results of the certification process.

c. Subcomponent 3: Information system (US\$2.8 million)

- 2.25 The system for monitoring nursing-market signals (SAMETS) will provide useful information to the general public, teaching institutions, and institutions that employ auxiliary nursing personnel on the labor market and personnel training processes, starting with the professionalization of auxiliaries financed by the project (component I) and the certification system described above. To that end, an infrastructure of joint mechanisms for access and distribution – integrated with the project's management information system (see paragraph 3.50) – will make it possible to understand and monitor the job and salary situation of this segment of the market, changes in demand for training and specialization in the nursing sector, the quality of trained personnel, and the quantitative and qualitative performance of the respective training institutions.
- 2.26 For this reason, this subcomponent will finance the training, installation, and development costs of: (i) an integrated database with information from the RAIS-CAGED unemployment insurance system, the Medical and Health Assistance Survey (PAMS) of the Brazilian Institute of Geography and Statistics, the administrative records of the professional boards, and the legislation and regulations of the Federal Senate Computer and Data Processing Center (PRODASEN); (ii) a permanent module of active telemarketing, supported by the public information office of the Ministry of Health, for telephone surveys requested by the project management unit and other Health Ministry units, and a national toll-free telephone line accessible by training institutions and service organizations, the

interested public, enrolled students, etc.; (iii) the formalization of semiannual focus groups with health-care service managers, project operators and implementing agencies, professional associations, and others, to evaluate trends in this labor market, the project's impact, and demand for professional training; (iv) disclosure and distribution of information through a report every four months, a semiannual bulletin on salary conditions, an annual bulletin on market trends and other nationally distributed publications intended for specific institutions and groups (e.g. training and employment institutions, graduates of secondary school, federal, state, and municipal government agencies, etc.); and (v) procedures for evaluating and monitoring the impact of these measures on target groups. Advertising and marketing actions for the various sources of information and publications are also under consideration.

- 2.27 This system will help regulate the market, providing information to training and employing institutions, professionals and technical personnel in the sector, and to the general public, concerning: (i) trends in the labor market (supply and demand) for auxiliary and technical nursing personnel, and their employment conditions; (ii) quantitative and qualitative information on available technical training, including aggregate results of the certification process (paragraph 2.22). These elements are critical to bringing the supply of training institutions for such personnel into line with demand from the employing institutions and enable individuals aspiring to technical careers in health care to better assess their options in selecting training institutions, based on objective quality indicators. During project implementation, a special effort is planned to ensure that this information reaches the candidates for training in a direct and easy manner (component I), enabling them to determine which operators can provide them with the best training.

d. Subcomponent 4: Modernization and strengthening of SUS technical schools (US\$5.4 million)

- 2.28 Support for the modernization and technical/managerial strengthening of the ETSUS will be provided through direct actions by the project management unit, the Secretariat of Health Investment Management, the Ministry of Health and subprojects submitted by the ETSUS to a competitive fund. The aim is to: (i) implement changes to ensure the flexibility and functional, administrative, and financial autonomy of the ETSUS in performing their functions; (ii) develop processes for technical and managerial training aimed at the managerial staff of the participating ETSUS, and the human resource units of the respective state health secretariats; and (iii) provide the ETSUS with technical planning, management, oversight, and evaluation tools, as well as an information system with the computer, software, and communications equipment needed to manage it and required for its role as promoter of teacher quality.

- 2.29 In order to access the resources of the competitive fund, each ETSUS must submit a comprehensive proposal ("business plan") that meets the requirements specified in the Operating Regulations and summarized in chapter III (paragraphs 3.34-3.37). The projects may opt for financing within a menu of eligible activities, such as technical and managerial training; teacher training courses for instructors; procurement of teaching materials, equipment, and software; the support information system (SIETS); and involvement in the SIG-PROFAE and SAMETS Intranet. Projects eligible for financing will be selected on the basis of the study done of each school and the criteria established in the Operating Regulations and in the corresponding manuals for project preparation and evaluation.

C. Cost and financing plan

- 2.30 The total cost of the program is US\$370 million, US\$185 million of which will be financed by the Bank; a substantial portion of the counterpart contribution under component I will be supplied by the Workers' Support Fund. Details by investment category and sources of financing are presented in the following table:

Table II-1: Total cost of the program and its financing
(in US\$ millions)

Categories	IDB/OC	Local	Total	%
1. Administration and supervision	9.4	3.9	13.3	3.6
1.1 Project management unit	9.4	3.2	12.6	
1.2 Contracting agency		0.7	0.7	
2. Direct costs	173.8	165.9	339.7	91.8
2.1 Professionalization of unskilled nurse's aides	151.4	156.0	307.4	83.1
2.1.1 Professionalization courses	127.8	128.9	266.7	
2.1.2 Basic education courses	13.6	8.2	21.8	
2.1.3 Teaching materials		18.9	18.9	
2.2 Institutional strengthening	16.7	4.9	21.6	5.8
2.2.1 Teacher training		0.6	0.6	
2.2.2 Certification system	10.1	2.7	12.8	
2.2.3 Information system	2.5	0.3	2.8	
2.2.4 ETSUS modernization	4.1	1.3	5.4	
2.3 Contingencies	5.7	5.0	10.7	2.9
Subtotal	183.2	169.8	353.0	95.4
3. Financial costs	1.8	15.2	17.0	4.6
3.1 Interest		13.7	13.7	
3.2 Credit fee		1.5	1.5	
3.3 Inspection and supervision	1.8		1.8	
Total	185.0	185.0	370.0	100.0

- 2.31 The loan, which will be in U.S. dollars, will have an amortization period of 25 years, a disbursement and grace period of 4 years, a variable interest rate set by the Bank, an inspection and supervision rate of 1%, and a 0.75% credit fee.
- 2.32 Eligible costs will include the contracting of professionalization and schooling services through the processes described in chapter III (paragraphs 3.19 to 3.24),

consulting services for the design and introduction of the various systems described herein, consulting and training services for modernization of the ETSUS, and procurement of the goods and services described in the respective components.

- 2.33 In general terms, the costs of qualification and the consulting services described will be financed by the Bank. The local counterpart contribution will cover the costs of contracting with the decentralized regional agencies, teacher training, and the study grants financed by the Workers' Support Fund.
- 2.34 The counterpart contribution will include the costs, estimated at up to US\$3 million, incurred by the Ministry of Health in preparing the project as of the second half of 1998, including those incurred in the student survey and the pilot project in Espírito Santo. These are included under the heading administration and supervision.
- 2.35 Project management costs, to be handled directly by the project management unit, relate essentially to consulting and various outsourced services for assistance with the preparation, supervision, and evaluation of subprojects and other activities, as well as payment for the services of the contracting agency (US\$700,000).

III. PROGRAM IMPLEMENTATION

A. Strategy and responsibility for implementation

- 3.1 During its four-year period, the project will have a flexible implementation procedure based on action plans agreed upon at annual reviews to be held between the government and the Bank. These reviews will be documented in the annual follow-up and evaluation reports, and the annual operations plans will reflect agreed changes in project implementation intended to ensure that the project is consistent with its general objectives and identify any need for changes that may arise.
- 3.2 The allocation of resources, by state, for the two components will be limited to the demand identified in the studies done by the project and the annual availability of resources. With a view to ensuring equity in the allocation of project resources, until 50% of the resources of component I have been committed and disbursed, no state may receive component I funds in a proportion greater than its existing number of unskilled nurse's aides relative to the overall project target. Once 50% of the component I resources have been committed, this restriction will be lifted, although no state may receive more than 35% of component I resources during the life of the project.

1. Responsibility for implementation

- 3.3 The borrower is the Federative Republic of Brazil, which has assigned responsibility for implementation to the Ministry of Health. For this purpose, the Ministry will set up a small unit, the **Project Management Unit (PMU)**, which will report to the Ministry's Secretariat of Health Investment Management (SIS), which will work in cooperation with the Ministry's Secretariat of Health Policy, with the state and municipal health secretariats, with the Ministries of Education and Labor, the Bank of Brazil, and other pertinent agencies.
- 3.4 For the implementation of component I, the PMU will draw on the support of the regional agencies⁵ (four, initially), which will operate in a decentralized manner (under contract) to supervise the training agencies selected through a call for tenders, for implementation of the professionalization subprojects. In carrying out the activities of component II, cooperation may be coordinated with specialized agencies, such as the National School of Public Health/Oswaldo Cruz Foundation, the Izabel dos Santos Technical Training School, and the Celso Suckow da Fonseca

⁵ The first four regional agencies that have been identified, which will handle more than 50% of the nurse's aides, are: the João Pinheiro Foundation (Minas Gerais), IPARDES (Paraná), CEPUERD (Rio de Janeiro), and FUNDAP (São Paulo).

Federal Center for Technological Education; the participation of the state health secretariats and the ETSUS is also planned.

a. Project Management Unit

- 3.5 The PMU, which will be attached to the SUS/SIS, will have a general manager's office and structures to coordinate the project's components, as described in the PMU organizational manual.
- 3.6 Counterpart funds will be used to hire an agency to provide support for the PMU in the procurement, contracting, and administration of consulting services, goods, and other services needed for the proposed operation. Ideally, the arrangement should ensure: (i) the flexibility and agility that the Ministry of Health needs to contract for consultants and other goods and services, timely availability of which is essential for the project's success; (ii) involvement in education, which facilitates access to the specialized expertise required for developing key activities of the project and for its subsequent continuation; (iii) an excellent track record in similar tasks in the health-care sector; and (iv) knowledge and experience in handling Bank procedures applicable to the procurement of goods and services.
- 3.7 In contracting with consultants and in procuring goods and other services, the agency selected will comply with the procedures of the Bank. This contracting process will be conducted under the terms set forth in chapter GS-403 of the Procurement Manual. ***Submission of the signed agreement between the PMU and the contracting agency will be a condition precedent to the first disbursement.***

B. Implementation instruments

- 3.8 In order to standardize the transfers of funds and commitments of the PMU and the coexecuting agencies, implementation of the project will be governed primarily through the following instruments:
- a. Operating Regulations, ***the entry into force of which will be a condition precedent to the first disbursement of the project.***
 - b. Agreement with the Bank of Brazil, for registering nursing personnel interested in the courses offered, which will also be a ***condition precedent to the first disbursement*** [already fulfilled].
 - c. Contracts between SIS and the regional agencies for implementation of component I; ***a condition precedent to the first disbursement is the submission of the agreements signed with the regional agencies responsible for coordinating the professional training of at least 50% of the unskilled nurse's aides. Signature of the contracts between the PMU and the regional agencies identified for future work in other areas will be a condition precedent to the respective disbursements by the Bank.***

- d. Letters or agreements of commitment from the state and/or municipal health secretariats to the project.
- e. Agreements between the Ministry of Health and the state or municipal health secretariats/agreements between the secretariats and private establishments. The former formalize the commitments to implement approved subprojects for modernizing the ETSUS; the latter formalize the association of the ETSUS with a private institution in order to make the provision and contracting of services and financial management more flexible. The submission of these agreements will be a **condition precedent to the disbursement of resources for subprojects relating to the strengthening and modernization of each ETSUS.**
- f. Contracts between the regional agencies and the operators selected for implementation of each approved subproject.
- g. Signature of an agreement with the specialized agency for execution of the teacher training and certification subcomponent ***will be a condition precedent to the first disbursement.***

C. **Procedures and criteria for project implementation**

1. **Component I**

- 3.9 The mechanism for implementation of the project takes into account the fact that an average of 56,250 nursing auxiliaries will need to be trained annually, through 45 to 60 operators supervised by 10 to 12 regional agencies. The large-scale nature of these training activities and Brazil's vast size require a high degree of delegation to these agencies, which has been taken into account in designing the operational instruments of the project.

a. Institutional eligibility and responsibilities

- 3.10 In order to be eligible, the participating organizations – regional agencies and operators – must be legally constituted as public or private organizations, with proven experience and competence in project administration and in the professional training of mid-level technical personnel in the health-care field.
- 3.11 Private nonprofit organizations with substantial experience in administering social sector projects and in developing public policy will be hired as **regional agencies** by means of an agreement. They must have capabilities and experience in: (i) development and management of educational projects; (ii) in-service training in the area of health care, particularly in training mid-level nursing personnel; (iii) teacher training for instructors; (iv) agreements and contracts; (v) federal and state legislation in the areas of education and health care; (vi) administrative, financial, and managerial procedures; and (vii) monitoring and evaluation systems

for professional training courses. In addition, they must have qualified technical teams and a well-established base of operations in the state or region for which they would be providing services. Since these are nonprofit institutions that have been identified and selected by the Ministry of Health based on their suitability and recognized experience, the Ministry intends to sign direct contracts with the regional agencies, using resources from the national counterpart contribution for this purpose.

- 3.12 Institutions legally constituted as public or private entities, with or without nonprofit status, that meet the legal, technical, administrative, and economic requirements of the type designated for the prequalification of operators and the evaluation of subprojects (see paragraphs 3.19 and 3.21) will be eligible to participate in component I as **operators**. These qualifications include the requirement that they have professional teams with ample experience and training in the pertinent areas (management of educational projects at the professional level, training and qualification of technical personnel and nursing auxiliaries, teacher training of instructors, and evaluation of professionalization courses), as well as facilities and equipment that meet the project's requirements at the seat of operations in the proposed region or state. Prequalified operators whose subprojects have been approved will bear technical and administrative responsibility for the implementation and oversight of those subprojects, and they are accountable for them to the regional agencies and the PMU.
- 3.13 The tasks of these prequalified operators include: (i) promotion of the courses with groups of unskilled nurse's aides, employers, and training institutions; (ii) identification of authorized training institutions, and hospitals having nurse's aides who are eligible for the professionalization courses, and coordination of preparations for the respective subprojects; (iii) reaching agreements with participating employers; (iv) subcontracting with educational institutions that provide professional training; (v) subcontracting with specialized agencies for schooling activities; and (vi) identifying potential students registered by the PMU through the Bank of Brazil, and placing them at the schools associated with their proposal, among other things. The operators will comply with Bank procedures in procuring goods and other services.
- 3.14 Prequalified operators that are educational institutions may implement approved subproject courses directly. Institutions other than educational institutions (hospitals, professional associations, and foundations, for example) must contract out the courses to educational institutions that are authorized by the State Education System and have prior experience in the professionalization of nursing auxiliaries. These institutions must have already trained three cohorts in decentralized courses, using educational methods that combine teaching and service.

b. Cycle and eligibility of subprojects and related procedures

- 3.15 Component I will operate on the basis of a competitive fund that will examine subprojects that are submitted by prequalified operators, and evaluated, selected, and prioritized by the regional agencies. The operational plans of the project will set annual reference goals at the state level, based on the number of unskilled nurse's aides and the availability of counterpart resources. Training institutions and other organizations that may qualify as operators will be encouraged to submit subprojects. Each subproject must demonstrate its pertinence and compliance with its stated objectives, with the operational and administrative capacity requirements of the operator and schools submitting the proposals, with teaching standards, with the financial and cost criteria detailed in the Operating Regulations, and with the technical features summarized in paragraph 3.22. The subprojects must also provide efficient and equitable arrangements for small communities.
- 3.16 The cycle of promotion, identification and preparation, submission, evaluation, selection, prioritization, approval, monitoring, and evaluation of subprojects under component I centers around the regional agencies, which hold responsibility and are sources of support, advice, and resources at each stage. The cycle starts with a preliminary process of selection, contracting, and training of the regional agencies. The following paragraphs give details on the sequence of events.

(i) Promotion of demand and calls for interested operators

- 3.17 The cycle begins with a proactive communication and distribution initiative that the regional agencies will direct toward unskilled nurse's aides (i.e., the potential candidates), the health-care institutions that employ them, and institutions that train mid-level personnel, municipal government agencies, professional associations (such as the Workers' Union, the regional nursing boards, the Brazilian Nurses' Association, and the Brazilian Hospital Federation), and similar institutions. In this phase, a range of sources of information about component I will be distributed and made available to interested parties, including ways to access this information, e.g., the project's Web page, a directory of regional agencies, a series of guides and manuals (such as the student's guide; manuals for developing subprojects; analysis, approval, and selection manuals; supervision and monitoring manuals; presentation of accounts) and, when appropriate, in the journal *Development Business*, published by the United Nations Development Programme. At the same time, each regional agency will publish, in the national and state press and other media, a public call for the prequalification of operators and the submission of subprojects; it will provide each interested party with the operator prequalification documents and subproject selection documents, including instructions for those proposing subprojects and the methods used for prequalification and selection, terms of reference for the subprojects, and a sample contract for subproject implementation.

(ii) Registration of nurse's aides

- 3.18 The next step is for unskilled nurse's aides who are interested in participating in advertised professionalization courses to register voluntarily at a special window in a local branch office of the Bank of Brazil. At that window, they must provide proof of identity and, upon payment of a nominal fee, they will receive a manual that explains the course and contains a registration form. Upon registering, interested parties will receive, at the same bank branch office, a registration voucher, which must be submitted to the operator of their preference. The total number of registrations received for each operator (actual demand) will form the basis for justifying the financing of each subproject submitted, *which will be verified at the time the implementation contract is signed for each operator and subproject (as a condition precedent to the signature of the respective contract)*. The regional agencies will receive copies of the registration vouchers from the Bank of Brazil for their respective areas, which will enable them to follow up on the demand that is generated, and support the development of subprojects by operators that are favored by nurse's aides and employers.

(iii) Prequalification of operators

- 3.19 The regional agencies will analyze the documentation submitted by each operator applicant, in order to verify their compliance with tax provisions, their status as legal entities, and their technical and administrative capacities, as well as that of the associated schools, if any. Operators that meet these criteria, which will be presented in greater detail in the respective guidelines and call announcements, will be considered prequalified, and the results will be announced to all interested parties. Eligible institutions from any member country of the Bank can participate under equal conditions, since the project will be advertised through the means commonly used by the Bank. In addition, this represents an opportunity for multiple awards since all prequalified and registered operators that submit subprojects meeting the selection and prioritization criteria described herein (see paragraph 3.24) and detailed in the Operating Regulations will receive the corresponding financing, in accordance with resource availability.

(iv) Evaluation of subprojects

- 3.20 Subprojects submitted by prequalified operators will then be evaluated and ranked in order of priority, according to the method and criteria set forth in the Operating Regulations and the subproject submission and evaluation manual, which should ensure the technical, administrative, and financial viability of the subprojects (see paragraph 3.21). In their submission, institutions must provide documented evidence that they have coordinated the participation of the training institutions with the employers of the candidates, the centers where the practical courses and practice sessions will be held, and the institutions that provide schooling services.

- 3.21 All subprojects are eligible provided that they: (i) have been submitted to the corresponding regional agency by a **prequalified operator** that commits to **documenting between 720 and 2,000 unskilled nurse's aides who have voluntarily registered** in the respective subproject; (ii) comply with the design criteria established for the project in the subproject submission and evaluation manual; (iii) are of benefit only to workers who perform nursing functions under a formal employment arrangement; (iv) include courses that are of appropriate size, given actual registered and verified demand, within the cost-efficiency parameters of the present project; (v) have a curriculum structure, a strategy for combining theory and practice, a detailed implementation plan for the courses and the levels of teaching supervision that correspond to the multivalent orientation of the skills profile proposed for curricular purposes and for the certification system; (vi) have provisions for schooling the segment of their students requiring that service; and (vii) submit maximum per capita costs (capitation payment per student) of US\$1,100 for professionalization and US\$173 for schooling.
- 3.22 In addition, the subprojects must: (i) provide qualified managerial and teaching teams, as well as installations and equipment that are compatible with the number of participants under the various training modalities established by the project; and (ii) provide evidence of having signed agreements that ensure the availability of adequate facilities at the medical centers where the practical courses will be conducted; (iii) document – by means of formal agreements – the commitment of the institutions that employ nurse's aides who have registered for each course that the institution will guarantee uninterrupted attendance by their employees, taking the steps necessary in terms of internal organization of work.

(v) Ranking, prioritization, and approval of subprojects

- 3.23 Subprojects will be ranked in order of priority by the regional agencies based on objective criteria spelled out in the subproject submission and evaluation manual, which will take into consideration such issues as quality, relevance, and the number of students registered. The prioritization will respond to the limits assigned to each state and the availability of resources. The subprojects that are selected will be sent to the PMU, with the respective ranking, so that they may be prioritized and given final approval. The awarding of subprojects will take place in the order in which they are ranked, in accordance with the project's needs. The PMU will authorize the regional agencies to sign contracts with the operators of prioritized subprojects and will release the corresponding resources. Subprojects prioritized in this manner may be awarded during a six-month period starting with the date they are submitted.

(vi) Contracts, disbursement, and implementation

- 3.24 Before signing the contract for implementation of each subproject, the operator must document the enrollment of the number of students originally proposed. In each case, only the capitation-based financing corresponding to the confirmed

number of students based on the vouchers issued by the Bank of Brazil will be authorized. The implementation contracts to be signed between the regional agencies and the operators will include transfers that ensure that an adequate revolving fund is maintained for the needs of each subproject.

(vii) Supervision and evaluation

- 3.25 Supervision of the regional agencies by the PMU and of the operators by the regional agencies will be supported by an information and monitoring system, with process and impact indicators, which will facilitate the preparation of periodic and special reports required by the project. Generally speaking, monitoring will focus on: the number of students registered and actually enrolled (by school associated with each operator), attendance, drop-out and graduation levels, the success rate in forming the planned groups and their actual geographical distribution, the levels of approval/rejection of subprojects, the level of compliance with the project's technical standards, and changes in the relationship between costs, disbursements, and the number of auxiliaries trained, and the proportion who pass the certification examinations.

2. Component II

- 3.26 Component II will finance studies, the development of standards, and other activities required for developing and implementing the regulatory actions detailed in paragraph 2.17, as well as those required to render component I viable.
- 3.27 The activities of the first three subcomponents (teacher training, information system, and certification system) will be handled directly by SIS by way of consultants hired to develop, introduce, and provide decentralized follow-up of the respective processes. The subcomponent for modernization and strengthening of the ETSUS will be financed through a competitive fund for which the various ETSUS will compete, in compliance with the criteria and requirements of the Operating Regulations.

a. Subcomponent 1: Teacher training

- 3.28 Teacher training for the instructors needed for component I will be organized by the agency described above and charged with creating and successfully marketing a distance-learning teacher training system that meets the project's requirements and the standards of the Ministry of Education. The 12,000 instructors will be trained in three cycles of modules, each one semester in length, with support, at the state level, from the National Network of Government Health-Care Schools associated with the National School of Public Health/Oswaldo Cruz Foundation (ENSP/FIOCRUZ); the ETSUS; and the network of five federal centers for technological education. The project's contribution (counterpart resources) will cover the cost of developing the curriculum structure and the program content, as

well as the teaching materials and training of the instructors. These actions will be coordinated by the specialized agency, with administrative issues being resolved through the regional and local coordination organizations for instructors and students. The distance-learning sessions will draw on the support of telephone, fax, and Internet resources. ***Submission of the agreement between the PMU and the specialized agency is a condition precedent to the first disbursement of the project.***

- 3.29 The resulting teacher-training course, which will be 540 hours in length, will include the theoretical, practical, and teaching-practice activities that will be supervised under the professionalization courses of component I. There will be one instructor for every 40 trainees registered (a total of 100 instructors per cycle), who will guide the participants, handle the distance-learning modules, support the evaluation methods planned for the students (for example, self-evaluation, distance-evaluation, conventional on-site evaluation, and supervised practice), among others.

b. Subcomponent 2: Information system

- 3.30 For the implementation of this subcomponent, plans call for contracting consulting services to design and develop the system described in chapter II, and the procurement of computer equipment through a contracting agency, in accordance with the terms of reference and specifications of the PMU. Plans also call for a specialized training cycle for the group that will be responsible for these services. In addition, implementation will require the signing of agreements with the various institutions that provide the expected data (IBGE, Ministry of Labor, RAIS-CAGED, and PRODASEN, among others). Information on the availability of training will be derived from the project's management information system SIG-PROFAE (register of schools, student performance during the courses and certification examinations, etc.).

c. Subcomponent 3: Nursing auxiliaries certification system

- 3.31 The system to be designed will be implemented by a certification management unit attached to the PMU, which, with support from a national consultative board and a technical board: (i) will coordinate with the consortium responsible for teacher training (first subcomponent of component II) to provide training to 12,000 instructors in skills evaluation techniques, so that they will form a contingent of evaluators (who will evaluate graduates of institutions other than their own, to avoid conflicts of interest); (ii) will contract one or more independent agencies to provide technical and administrative support for the process; (iii) will receive the results of each cycle of examinations administered, and will issue the corresponding certifications; (iv) will supervise the work of the contracted agencies; and (v) will conduct an advertising and marketing campaign for the certification system, directed toward the training institutions and institutions that employ auxiliary nursing personnel, as well as health-care plans (purchasers of health-care services).

The examinations will be given at least once each year, utilizing hospital installations that are suitable for this purpose, at hours that do not interfere with normal patient care.

- 3.32 The National Consultative Board will have representatives from the Ministries of Health, Education, and Labor, professional nursing associations, employers, while the technical board will be made up of specialists in the various areas of nursing. The first board will be responsible for the general conduct and articulation of the process, and for issuing standards, while the system's technical board will directly support the PMU in defining and periodically updating skills profiles and the standards set for those skills. The PMU will be responsible for the administration and evaluation of the process as a whole. ***The creation of these boards is a condition precedent to the first disbursement of the subcomponent.***

d. Subcomponent 4: Modernization of the ETSUS

- 3.33 This subcomponent will be managed directly by the PMU through a competitive fund that will be open to ETSUS authorized by the respective state education secretariats. In order to access the fund, ETSUS must submit subprojects (strategic plans and action plans for administrative and financial restructuring and flexibility, terms of reference) that will enable them to set up technical management structures and the managerial and financial functional autonomy needed to become competitive centers of excellence in the market for training SUS technical personnel. In each case, these actions will respond to a previous analysis performed by the SIS. However, states that have no ETSUS but are interested in setting them up may apply for technical assistance from the PMU for conducting the respective feasibility studies.
- 3.34 Institutional eligibility. Projects will be analyzed directly by the PMU, based on criteria specified in the Operating Regulations and relevant guidelines. In order to be eligible, ETSUS must: (i) present a decree of establishment, internal regulations, and curriculum approved by the state education secretariat; (ii) have a teaching staff with the teacher training required by the Ministry of Education; (iii) have trained at least one group of students; (iv) have a letter of participation in the PROF AE project or a letter from the state and/or municipal health secretariat (in accordance with the model established by the PMU), attesting to the necessary infrastructure and human resources, logistical and institutional support, and the budget needed during and after implementation of the project; and (v) identify the private entity that will assist it in its move toward managerial and financial flexibility.
- 3.35 ETSUS subproject cycle. This cycle begins with the submission of a letter of participation from the ETSUS managing agency (i.e., state or municipal health secretariat) along with a preliminary proposal for increased flexibility and modernization. The proposal will be analyzed by the PMU in light of its prior analysis of the ETSUS and the eligibility criteria for the subprojects stipulated in

the Operating Regulations; if appropriate, it will sign a letter of intent with the managing agencies. With the technical assistance of the PMU, these agencies will complete the development of the subproject, which will be reported to the State Health Board and then submitted to the PMU. The PMU will evaluate the technical, administrative, and financial viability of the subproject, recommending its approval – if appropriate – by SIS. **The first two ETSUS subprojects, – with the instruments showing their eligibility – will require the non-objection of the Bank ex ante.** The process ends with the signing of an implementation contract between the parties described above and the gradual release of the necessary resources to a revolving fund established for this purpose.

- 3.36 Eligibility of subprojects. Eligibility will be based on: (i) the compliance of the subproject's objectives with those of the PROF AE project and with related state and municipal policies; (ii) the subproject's innovative merit; (iii) the technical, administrative, and financial viability of the proposal submitted; (iv) provisions for promotion and quality control of the courses offered, and (v) submission of proof of its legal association ("partnership") with an independent or private nonprofit entity that will ensure its technical, administrative, and financial flexibility and capacity to receive and manage resources of its own and/or from outside sources.
- 3.37 With a view toward ensuring economies of scale and quality, at the same time the PMU will directly implement: (i) a round of technical managerial training; (ii) studies of legal and administrative alternatives for increasing the flexibility of the ETSUS; (iii) the development of software for administration of the ETSUS; (iv) development and distribution of teaching materials; (v) evaluation studies on a national scale; and (vi) the development of a network of ETSUS.
- 3.38 As in component I, the PMU's supervision and monitoring of component II will be based on the project's management information system. In this instance, the plan calls for monitoring the number of centers, teachers and instructors trained in the teacher training cycle; the success rates of the certification examination; and the progress made in strengthening the ETSUS.

D. Implementation and procurement periods

1. Implementation schedule

- 3.39 Project implementation is planned for a period of four years, in accordance with the schedule of disbursements presented below (Table III-1), which reflects the schedule of activities and procurement.

Table III-1: Disbursement schedule (in US\$ millions)

Categories	Total		Implementation year							
			1		2		3		4	
	IDB	Local	IDB	Local	IDB	Local	IDB	Local	IDB	Local
1. Administration and supervision	9.4	3.9	3.1	0.7	3.1	1.0	1.6	1.1	1.6	1.1
1.1 Project management unit	9.4	3.2	3.1	0.5	3.1	0.7	1.6	1.0	1.6	1.0
1.2 Contracting agency	0.0	0.7	0.0	0.2	0.0	0.3	0.0	0.1	0.0	0.1
2. Direct costs	173.8	165.9	24.1	56.3	59.8	54.7	51.0	50.6	38.9	4.3
2.1 Professionalization of unskilled nurse's aides	151.4	156.0	17.6	55.6	52.4	52.3	46.3	46.3	35.1	1.7
2.1.1 Professionalization courses	137.8	128.9	12.2	36.7	46.9	46.9	43.6	43.6	35.1	1.7
2.1.2 Schooling courses	13.6	8.2	5.4	0.0	5.5	5.4	2.7	2.7	0.0	0.0
2.1.3 Teaching materials	0.0	18.9	0	18.9	0.0	0.0	0.0	0.0	0.0	0.0
2.2 Institutional strengthening	16.7	4.9	6.5	0.7	5.9	0.0	2.7	2.7	1.6	1.6
2.2.1 Teacher training	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
2.2.2 Certification system	10.1	2.7	3.0	0.0	4.3	0.0	1.9	1.9	0.9	0.9
2.2.3 Information system	2.5	0.3	2.1	0.1	0.2		0.1	0.1	0.1	0.1
2.2.4 ETSUS modernization	4.1	1.3	1.4	0.0	1.4	0.0	0.7	0.7	0.6	0.6
2.3 Contingencies	5.7	5.0	0.0	0.0	1.5	2.4	2.0	1.6	2.2	1.0
3. Financial costs	1.8	15.2	0.4	1.4	0.4	5.3	0.5	5.2	0.5	3.3
3.1 Interest	0.0	13.7	0.0	1.0	0.0	4.9	0.0	4.8	0.0	3.0
3.2 Credit fee	0.0	1.5	0.0	0.4	0.0	0.4	0.0	0.4	0.0	0.3
3.3 Inspection and supervision	1.8	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.5	0.0
Total	185.0	185.0	27.6	58.4	63.3	61.0	53.1	56.9	41.0	8.7
Percentages	50.0	50.0	7.5	15.8	17.1	16.5	14.3	15.3	11.1	2.4

2. Procurement plan

3.40 The procurement plan is presented in Annex III-1. The procedures contained in Annex D to the loan agreement, which are summarized below, will apply for the procurement of training services. For other goods, services, and consulting services, the Bank's procedures and standards, presented in the respective annexes (B and C) to the loan agreement, will apply. The decision has been made to include an Annex D, since the procedures indicated for contracting with consultants, and for goods and services, do not correspond to the particular characteristics of the bidders and the training services. In all procurement procedures, due attention will be given to considerations of economy, efficiency, and reasonable pricing. In all cases in which Bank financing is provided in foreign exchange, there must be no restrictions on the participation of bidders from member countries of the Bank.

3.41 The mechanism proposed in Annex D complies with the basic principles of the Bank's procurement policies in terms of: (i) fostering and creating conditions for the competitive participation of private-sector agents ("operators") of the member

countries of the Bank; (ii) subjecting that participation to prequalification criteria ("accreditation") that ensure their ability to provide services that are of acceptable quality and are efficiently managed (efficiency principle); (iii) basing the selection and prioritization of subprojects on their quality and price, which permits the use of a maximum fixed unit price (adjusted by geographical region) per trained student; the legitimacy of that unit as a market price has been proven in the empirical studies cited in chapter II (paragraph 2.12), thereby complying with principles of economy and reasonability.

a. Training services

- 3.42 Contracting for training services will be governed by Annex D to the loan agreement, which takes into account: (i) the specific characteristics of the PROF AE project; (ii) the policies of the Bank; (iii) national legislation; (iv) the amounts to be managed; (v) the open process for prequalification of operators, which does not restrict the participation of organizations from member countries of the Bank; (vi) the opening of a competitive fund to support all the subprojects that meet the eligibility criteria; and (vii) basing professionalization subproject eligibility on the direct and documented demand on the part of unskilled nurse's aides. In order to contract the training services for component I, public calls for prequalification and submission of subprojects will be issued. If the cost of training in a single subproject in component I or II exceeds US\$1.5 million, international competitive bidding procedures will be followed, pursuant to the general procedure stipulated in the Operating Regulations. National legislation will apply with respect to smaller amounts, in the absence of any other applicable provisions.

b. Consulting services

- 3.43 The selection and contracting of consulting services will be handled in conformity with the Bank's rules for contracting consulting services, as specified in Annex C to the loan agreement. International competitive bidding will be used when foreign-exchange resources are utilized and the estimated amount of the contract exceeds the equivalent of US\$200,000.

c. Related construction, goods, and services

- 3.44 No construction is envisioned. The procedures stipulated in Annex B to the loan agreement will apply for procuring other goods and services.

3. Limits on ex post reviews

- 3.45 Given the proposed dimension of the training activities in component I and their close relationship to the subcomponents of component II, in order to make implementation of the project more flexible, it is recommended that the requirement of ex ante non-objection by the Bank apply only to contracts for training services (integral subprojects for professionalization and schooling) in amounts exceeding

US\$1.5 million, for the procurement of goods and services in amounts exceeding US\$100,000, and for contracting with individual consultants or consulting firms in amounts exceeding US\$50,000 and US\$100,000 respectively. However, the Bank's Country Office in Brazil will review ex ante the first two contracts of each type; all others – except for those involving international bidding – will be reviewed ex post on a sampling basis. If substantial differences in procedures are found, the Bank will not accept such costs within the cost of the project, and will return to ex ante reviews.

E. Recognition of costs

- 3.46 It is recommended that project preparation costs up to US\$3 million be recognized retroactively against the counterpart contribution (see paragraph 2.34).

F. Revolving fund and disbursements

- 3.47 It is recommended that a revolving fund be established equivalent to 10% of the loan amount, in light of the nature of the project, the decentralized character of its implementation, the amounts anticipated mainly for the subprojects of component I and the participation of some 10 regional agencies and 300 operators in implementing them. To replenish the revolving fund, the PMU will submit consolidated documentation of the specific costs and the specific components and coexecuting agencies of the project. The original documentation upon which this is based will remain in the possession of the executing agency, and will be available for review by authorized officers of the IDB and external auditors, and will be kept for a minimum of five years as of the last disbursement.

G. Reports, monitoring, and evaluation

1. Monitoring by the Bank

- 3.48 The project will be supervised by the Bank's Country Office in Brazil, which will assign a specialist to it. Special attention will be given to compliance with the stipulations of the Operating Regulations for the submission, evaluation, and approval of subprojects. Periodic inspection visits, annual reviews, and periodic evaluations of the project are planned, in order to identify and adjust implementation procedures.

2. Progress reports, reviews, and operating plans

- 3.49 The PMU will submit to the Bank semiannual reports (within 60 days of the close of each period), which will reflect progress made in achieving the project goals listed in the logical framework (Annex II-1), the use of resources and disbursements made by subproject, regional agency and category, the problems encountered and remedial steps taken, as well as the operating plans (specifying the quantitative targets) for the next half-year. Along with the first semiannual report, the Bank is to

receive a report on the baseline evaluation for assessing impact against the logical framework. The reports and operating plans may be analyzed at periodic review meetings between the PMU and the Country Office. Internally, the regional agencies and operators must submit to the PMU progress reports and special reports, pursuant to the specifications of the Operating Regulations. The final report, which must include the results of the final evaluation (see paragraph 3.54), as well as the conclusions and recommendations for future operations, must be submitted to the Bank within 180 days after the last disbursement.

- 3.50 For internal project management, a management information system has been designed comprising four modules (basic, schooling, services, management). The modules manage the necessary information on the various activities of the project in order to generate the indicators and technical, administrative, and financial reports listed for each component (paragraphs 3.49 and 3.53), with updated data that are readily accessible to the PMU, the regional agencies, and other authorized users.

3. Accounting and outside auditors

- 3.51 The PMU will keep records in which it documents project spending in accordance with the accounting plan approved by the Bank. The financial statements of the project are to be audited annually by the Federal Secretariat of Auditing of the Ministry of the Economy, and will be submitted to the Bank within 120 days of the close of each fiscal year during project implementation. The final financial report, duly audited by the Federal Secretariat of Auditing, is to be submitted no later than 180 days after the final disbursement.

4. Program process and impact evaluations

- 3.52 Ongoing monitoring and periodic evaluations of compliance with the technical objectives of each of the program's components and subcomponents will be provided, in accordance with the logical framework (Annex II-1) and with the support of the information systems designed in conjunction with the project (SAMETS, SIG-PROFAE, SIETS). The PMU will submit the following reports to the Bank: (i) a baseline report, six months after the first disbursement, (ii) progress reports every 12 months starting with the submission of the baseline report, and (iii) a final report, within 180 days of the final disbursement. The second progress report and the final report must be produced by an independent consulting firm.
- 3.53 The evaluation of the program's impact, which will be produced by an independent consulting firm, will verify the improvement in quality of the care provided by auxiliaries after their professionalization courses. The work context, quality of work performed, complementarity with laboratory examinations, and the perceptions that other professionals on the medical and nursing team have of the auxiliaries will be analyzed. The indicators will be checked on a sampling basis in various regions of

the country, before and after the courses have taken place. Baseline, progress, and final reports will be submitted to the Bank, and are to be integrated into reports on the process.

- 3.54 Two evaluations will be performed during implementation of the program, a midterm evaluation after 50% of the resources contributed by the Bank have been disbursed or 30 months into project implementation, whichever comes first, and a final evaluation during the last quarter of implementation, which will focus on the project's impact on health-care services and the labor market for auxiliary and technical personnel. The resources for these evaluations are included under the heading "administration".

H. Status of the program

- 3.55 The national team has completed the planned studies, which have provided final conceptual and operational designs, and estimated costs for both components and their respective subcomponents. In addition, final versions of the Operating Regulations, manuals, and related guidelines are available, the entry into force of which will be made official prior to the first disbursement.

IV. FEASIBILITY, BENEFITS, AND RISKS

- 4.1 Since PROF AE constitutes a fundamental investment in the "human capital" of nursing auxiliaries, the analysis of its feasibility emphasizes the benefit that is hoped for, in terms of: (i) indicators of the successful application of the knowledge, skills, and aptitudes acquired; (ii) its effects on job stability and the employability of these individuals; and (iii) the real capacity of the regulatory entities involved to prevent a recurrence of the hiring of unqualified personnel to perform nursing auxiliary functions.

A. Financial viability

- 4.2 **Counterpart contribution.** The planned contributions of the Workers' Support Fund, which were approved by resolution of the Fund's board (August 1999), and those of the Ministry of Health in its 1999 budget cover the project's initial requirements vis-à-vis the counterpart contribution.

B. Technical viability

- 4.3 **Schooling of nurse's aides.** As stated above, this group suffers from very low levels of schooling. Even when there is a possibility that they may be qualified as auxiliaries independent of their prior schooling, the government's decision to combine primary schooling courses with the professionalization courses is viable in light of the country's experience in this area.

- 4.4 **Capacity of the training system.** Despite the proven lack of training capacity in existing centers, it is expected that, with the planned teacher training for some 12,000 instructors, it will be possible to absorb the anticipated academic load of some 27 million student-hours.

- 4.5 **Variation in instructor quality.** Although the Ministry of Health can legally declare technical schools authorized by the state education secretariats ineligible, there are variations in the quality of instruction among the various potential training institutions. The standardization of teaching materials to be used and the implementation of the certification system are considered adequate means for controlling these variations.

C. Institutional viability

- 4.6 From the institutional perspective, the project is considered viable in light of the experience of the Ministry of Health and of the technical team of the SIS in managing projects financed with outside resources. In addition, the participation of the National Health Fund, which is responsible for accounting management of PROF AE, is an additional guarantee, given its knowledge and installed capacity for

such tasks. With regard to the regional agencies and operators under component I, the criteria adopted in the Operating Regulations for their selection will ensure the technical and managerial ability to perform the relevant tasks. The first four regional agencies identified are institutions with a recognized track record in the various issues covered in the criteria mentioned above, and their abilities were confirmed during the analysis of the project. Under component II, the ETSUS will receive managerial and technical strengthening, in association with partnership agreements that will ensure their flexibility in financial management, including the capacity to receive and manage outside resources.

- 4.7 **Situation and management of health-care services.** Although this lies outside the scope of this project, the Ministry of Health and the professional associations acknowledge the importance of efforts that parallel the PROFAE process with regard to: (i) intensive professionalization of directors, managers, and supervisors of institutions and human resources teams in this sector; (ii) underscoring the accountability of these persons for their actions; (iii) salary adjustments that will ensure a coherent pay scale for the various categories of nursing personnel; (iv) correcting weaknesses in service quality and infrastructure that affect teaching and the professional activity of new personnel; and (v) adjustment of SUS reimbursement rates for services purchased. Most of these issues are related to the implementation of the Basic Operating Standards, which guide the process of focusing health-care services at the municipal level, and the efforts that the Ministry of Health is making to balance and stabilize its revenue.

D. Policy issues

- 4.8 An analysis of the positions of various professional associations in the nursing sector (unions of health-care workers, the Brazilian Nurses Association, COFEN, CORENs) and of the hospitals (Brazilian Hospital Federation, Brazilian Federation of Charitable Organizations) confirms their support for the key elements of the process planned by PROFAE.

E. Legal and policy issues of the Bank

- 4.9 **Harmonizing the regulations of the Workers' Support Fund, the Ministry of Health, and the Bank.** Given the participation of the Workers' Support Fund in the counterpart contribution, the potential need for harmonizing existing regulations with those of the Bank has been taken into consideration. Given the fact that resources will be transferred directly from the Fund to the Ministry of Health, to be managed by the PMU, there is no incompatibility among the existing regulations.

F. Environmental and social issues

- 4.10 **Environment.** Given the lack of investments in potentially hazardous construction or equipment, the project will not have any negative impact on the environment.

Nonetheless, the teacher training for instructors, instructional materials, and respective curricula will include: guidelines for managing hospital and infectious waste, their separation from regular waste, and their appropriate final disposal, as well as issues pertaining to occupational health. The Committee on Environment and Social Impact (CESI) approved the project at its meeting on November 30, 1998.

- 4.11 This operation qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). It does not, however, qualify as a poverty-targeted investment (PTI), since the benefits for health and nurse's aides' productivity will flow to all socioeconomic groups. The borrower will not be using the 10 percentage points in additional financing. The project does not specify explicit indicators to measure poverty reduction and social equity enhancement.
- 4.12 **Impact on women.** The large proportion of women (85%) among the population of unskilled nurse's aides to be trained means that this project will contribute significantly to opening new opportunities that improve the mobility of the participants. Among the instructors to be trained, as well, a large proportion of female nurses is expected. Even more significantly, the female population in general will benefit, since most of the clientele for the services to benefit from improvement are women. Finally, it has been verified that, in accordance with the recommendation of the CESI, the courses being financed already include modules on reproductive health.

G. Benefits

- 4.13 The major benefits of the project will be: (i) improvements in the quality of inpatient and outpatient care that are attributable to the enhanced qualifications of the participating nursing auxiliaries; (ii) the creation of an institutional base and market conditions that make it possible to train mid-level health-care technical personnel after PROFAE is completed; and (iii) increasing the mobility and opportunity for progress of the country's unskilled nurse's aides.
- 4.14 These benefits are difficult to measure and quantify accurately, although the project does include an impact analysis using indicators that make it possible to measure the cost-effectiveness of the changes introduced into the health-care system. However, although there is no specific cost-benefit analysis of the investments financed by PROFAE, the wealth of information generated during the preparation of the project with regard to the functioning of the labor market for nursing auxiliaries makes it possible to state that the benefits produced by the project far surpass its costs. This is a consequence of the considerable pay difference between auxiliaries and unskilled nurse's aides, which the market recognizes to the point that utterly pessimistic assumptions concerning developments in the utilization of

this type of personnel, their retirement age, or their salaries, would scarcely be enough to cancel out the net benefits of the project.

H. Risks of the program

- 4.15 **Less impact on less populated and rural areas.** Given the low salary level of nursing auxiliaries in small institutions located in remote sites and rural or sparsely populated areas, there is a risk that these areas may not attract or retain personnel qualified through the project, and that these institutions may be forced to continue hiring unqualified personnel. The project includes efforts to support the qualification of unskilled nurse's aides in these areas, granting priority to those subprojects that propose the implementation of schooling and training activities there.
- 4.16 **Continued hiring of unqualified unskilled nurse's aides.** Despite the existence of the Law of 1986 and the expectation among many administrators of charity hospitals that they will see a reduction in their cost of care through the qualification of that personnel, some establishments may continue to hire unskilled nurse's aides in order to save on operating costs, given the lower salary level of this group in comparison to qualified nursing auxiliaries (approximately 30%). The continuance of the regulatory role that has been played by professional nursing associations is the best guarantee against this risk.
- 4.17 **Cultural resistance to the certification and information systems.** The introduction of these new approaches, in the context of a traditional culture centered on the prequalification of processes and training courses rather than results may generate some opposition within the nursing (and other) professional associations. In order to minimize this effect, the active involvement of these associations is planned in the design of the certification system, as is the involvement of those providing training programs in the design of the public information system
- 4.18 **Effects of budgetary constraints.** The possibility of having better-qualified personnel imposes financing requirements within the health-care sector, which – in the current context of budgetary constraints – may be unable to be met.
- 4.19 **Resistance to institutional change.** The changes to be introduced by PROF AE are complex and are potentially vulnerable to institutional rigidity and resistance by the parties involved. To reduce this risk and promote acceptance of the proposed changes, during the preparation of the project the favorable disposition of some regional agencies and potential operators was confirmed. Promotional and consensus-building mechanisms were incorporated into the design of the project, to be used during finalization and implementation of the proposals of component II.

I. Recommendation

- 4.20 In light of the technical, institutional, financial, and economic analysis, and of the benefits and risks of the project, it is recommended that the Bank approve the project.

LOGICAL FRAMEWORK
PROJECT FOR THE PROFESSIONALIZATION OF NURSING PERSONNEL
(BR-0305)

OBJECTIVE	VERIFIABLE INDICATOR	MEANS OF VERIFICATION	ASSUMPTIONS
quality of inpatient and/or the low-income health-care field. High qualification of personnel.	Indicators of the quality of nursing care: incidence of bed sores, incidence of errors related to administration of medications and intravenous infusion, incidence of patient accidents, and patient satisfaction with the care received.	Hospital and patient medical records. Sample epidemiological studies. Survey of beneficiaries of health-care services. Evaluation of PROFAB's impact on the quality of health-care services.	Health-care institutions having information on the quality of nursing care in order to establish the baseline.
professionalization of personnel in service. The regulatory capacity of personnel with regard to human resources in the health-care field. Financing for the training of technical nursing personnel.	Schooling and professionalization courses respond to demand in each area of influence. No unskilled nurse's aides performing auxiliary functions. Institutional arrangements in the health-care sector make it possible to finance 100% of the demand for training of auxiliaries in different areas.	Management information system of the project. Surveys at health-care institutions. Information system on the labor market and training of auxiliaries.	There will be demand for courses for nurse's aides and employers. Acceptance of the new component of the regulatory system by the sector. The political will exists to continue financing for training in the health sector on the part of the Ministry of Health in accordance with the criteria of the Ministry of Health.
S ion of nursing personnel.	♦ 225,000 nurse's aides registered. ♦ 90% of those registered have enrolled. ♦ 80% of students successfully complete course.	Bank of Brazil SAMETS/ PROFAB (RAIS and CAGED) Bank of Brazil SIG-PROFAB SIG-PROFAB	There is a sufficient supply of establishments and the courses meet the project's quality criteria.

OBJECTIVE	VERIFIABLE INDICATOR	MEANS OF VERIFICATION	ASSUMPTIONS
	<ul style="list-style-type: none"> ◆ 80% of PROF AE students certified. ◆ 80% of services having unskilled nursing personnel are offering PROF AE courses. 	SIG-PROFAE RAIS and CAGED SIG-PROFAE	
nursing personnel.	<ul style="list-style-type: none"> ◆ 95,000 nurse's aides registered. ◆ 95% of those registered have enrolled. ◆ 80% successfully complete courses in 12 months. ◆ 95% of those who complete the basic education course enrolled in professionalization courses. 	Bank of Brazil RAIS and CAGED SIG-PROFAE SIG-PROFAE SIG-PROFAE	
training	<ul style="list-style-type: none"> ◆ 12,000 teachers trained. ◆ Less than 8% dropout rate ◆ 80% of PROF AE teachers are trained through distance courses. ◆ 75% of those trained participate as evaluators in the certification process. 	SIG-PROFAE SIG-PROFAE SIG-PROFAE SIG-PROFAE	There is sufficient interest among health care professionals to take courses among the graduates to participate in certification.
certification	<ul style="list-style-type: none"> ◆ 80% of those who complete PROF AE courses are certified 	SIG-PROFAE	Employers will accept the certification system as a selection criterion
information system	<ul style="list-style-type: none"> ◆ 100% of operators use SIG-PROFAE ◆ 100% of the regional agencies use SAMETS ◆ 95% of targeted number of information sheets and bulletins distributed. ◆ 95% of targeted number of focus groups held. 	SIG-PROFAE Management reports Management reports Management reports	There will be interest among personnel in the system to access and use the information system

OBJECTIVE	VERIFIABLE INDICATOR	MEANS OF VERIFICATION	ASSUMPTIONS
ing the ETSUS	<ul style="list-style-type: none"> ◆ 100% of all ETSUS submit modernization subprojects ◆ 100% of states that do not have ETSUS at the start of PROF AE submit subprojects. ◆ No. of new courses offered/No. of courses at the start of the project ◆ 90% completion rate for students in courses offered by ETSUS. ◆ 40% more ETSUS obtain their own resources at completion of PROF AE. ◆ Percentage of own resources over total resources. 	<p>PMU and SIETS information</p> <p>PMU and SIETS information</p> <p>PMU and SIETS information</p> <p>PMU and SIETS information</p> <p>PMU and SIETS information</p> <p>PMU and SIETS information</p>	<p>The political will exists to transform ETSUS into modern and flexible</p>

PROCUREMENT PLAN *
PROFESSIONALIZATION OF NURSING PERSONNEL
(BR-0305)

COMPONENT	OBJECT	CATEGORY	MODE	Year 1	Year 2	Year 3	Year 4	TOTAL
ADMINISTRATION								
Information/Training	Informational materials	Goods	LCB	200,000	200,000	200,000	200,000	800,000
Information system	Systems development	Consulting services	ICB	500,000	200,000	-	-	700,000
Information system	Computer equipment	Goods	LCB	200,000	50,000	-	-	250,000
Evaluation	Services	Consulting services	ICB	-	-	500,000	500,000	1,000,000
COMPONENT I								
Professionalization/	Courses	Consulting services	Call for offers	21,700,000	75,000,000	150,000,000	20,000,000	266,700,000
Professionalization/	Teaching materials	Goods	ICB	18,900,000	-	-	-	18,900,000
Evaluation	Services	Consulting services	ICB	250,000	250,000	250,000	250,000	1,000,000
COMPONENT II								
Information system	Systems development	Consulting services	LCB	-	70,000	70,000	70,000	210,000
Information system	Computer equipment	Goods	LCB	80,000	-	-	-	80,000
Information system	Services	Consulting services	ICB	300,000	-	300,000	-	600,000
Information system	Certificates	Goods	ICB	1,500,000	-	1,500,000	-	3,000,000
Training	Teaching materials	Goods	ICB	600,000	-	-	-	600,000
Information	Systems development	Consulting services	ICB	300,000	-	-	-	300,000
Evaluation	Services	Consulting services	LCB	40,000	40,000	40,000	40,000	160,000
TOTAL				47,270,000	75,810,000	155,560,000	21,060,000	299,700,000

- local competitive bidding
 - international competitive bidding
- does not include consultants hired through the selection process, or minor procurements of operating supplies through local purchasing.

PROPOSED RESOLUTION

BRAZIL. LOAN /OC-BR TO THE FEDERATIVE REPUBLIC OF BRAZIL
(Project for the Professionalization of Nursing Workers - PROF AE)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Federative Republic of Brazil, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a project to professionalize nursing workers. Such financing will be for the amount of up to one hundred and eighty five million dollars of the United States of America (US\$185,000,000), or its equivalent in other currencies, except that of the Federative Republic of Brazil, which are part of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.