



GOBIERNO DE CHILE
MINISTERIO DE EDUCACIÓN



OREALC
OFICINA REGIONAL DE EDUCACIÓN PARA AMÉRICA LATINA Y EL CARIBE

**PROYECTO REGIONAL DE INDICADORES EDUCATIVOS
II CUMBRE DE LAS AMÉRICAS**

Santiago, Chile

**REGIONAL EDUCATION INDICATORS PROJECT
SECOND SUMMIT OF THE AMERICAS**

AUGUST 15TH 2000

COUNTRY RESPONSIBLE: CHILE

WITH THE COOPERATION OF UNESCO/OREALC

REGIONAL EDUCATION INDICATORS PROJECT

SUMMIT OF THE AMERICAS

CONTENTS

EXECUTIVE SUMMARY

I. PROJECT FRAME OF REFERENCE

- 1. Conceptual elements, model of relationship of indicators and categories**
- 2. Project background & justification**
- 3. Construction of indicators within the region: current situation**
- 4. Basic criteria for carrying out the project**
- 5. Expected results**

II. PROJECT OBJECTIVES, COMPONENTS, & STRATEGIES

- 1. General objective**
- 2. Specific objectives**
- 3. Descriptions of components**

III. TIMETABLE, COSTS, & FINANCING

ANNEXES:

- 1. OBJECTIVES OF THE II SUMMIT OF THE AMERICAS AND INDICATOR CATEGORIES**
- 2. CATEGORIES AND INDICATORS**
- 3. BUDGET**

EXECUTIVE SUMMARY

BACKGROUND

At the Second Summit of the Americas (Chile, April 1998), heads of state and government adopted a Plan for Action for Education that urged countries to strengthen their systems for assessing the quality of education and to establish ways to compare some education indicators in the hemisphere. Some initiatives in this area, such as the UNESCO/OECD World Education Indicators Project, the work of MERCOSUR, and others are already underway. The Regional Education Indicators Project proposed by Chile in collaboration with UNESCO/OREALC seeks to construct indicators by building upon these existing initiatives and to create a coherent strategy so that all countries in the hemisphere may work together in the development of comparable education indicators.

PROJECT OBJECTIVES AND EXPECTED RESULTS

The objectives of the project are:

- to construct a set of basic comparable education indicators for the Americas, taking into account existing initiatives
- to strengthen national systems of indicators and to develop a technical assistance program, and
- to publish the indicators and encourage their use to assist education policy making

It is expected that after three years of project execution countries will have available a set of comparable indicators – collected and analyzed with the active involvement of participating countries. This will permit them to make better and more informed policy decisions and to be able to assess the progress in meetings of the Summit and in considering their national goals.

PROJECT DESCRIPTION:

There is to be an initial meeting of interested countries from throughout the hemisphere (the United States has offered to host this plenary meeting in August 2000) in order to jointly consider effective participation in the project. The categories and indicators proposed will be fine-tuned during the execution of the project. They will be broadened if necessary, according to the interests of the countries, in the working groups made up of country representatives. The initial set of categories proposed by OREALC, in consultation with a number of countries, includes:

- Demographic, social, and economic contexts of education and a general description of education systems
- Human and financial resources in education
- Performance of education systems (access, participation, efficiency)
- Quality of education (to include student achievement)
- Social impact of education (may include relationship of education with the labor market, civic behavior, and others)

Based on the proposed categories, countries shall decide in which categories they wish to participate. Specialists from each interested country will be invited to take part in the working groups that will be organized in each category. UNESCO/OREALC will act as the technical secretariat or general coordinator and will provide technical assistance to these working groups. The groups will meet at least once a year and use the internet to communicate their decisions regarding which indicators are desirable and feasible for their countries within the proposed categories and the common methodologies adopted for the construction of these indicators.

For the information collection phase OREALC will offer coordinated technical assistance to those countries that desire or need support to obtain timely and reliable information. Once the information is collected using the regular UNESCO Institute for Statistics questionnaire, OREALC, in cooperation with the UNESCO Institute for Statistics, will construct the indicators and will then publish them, along with an analysis of the education situation of the region.

During this initiative, the process of creation and modification of the indicators will be considered to be active and constant and will take a long-range perspective. The project will last for three years. The original budget proposed by Chile and UNESCO/OREALC is approximately US\$2 million for the three years, for which financial commitments have already been received from various sources such that the project will be a shared effort between countries, international organizations, and other donors.

EDUCATION INDICATORS REGIONAL PROJECT

SUMMIT OF THE AMERICAS

I. PROJECT FRAME OF REFERENCE

1. Conceptual elements, relation of indicators and categories

One of the most frequently discussed general concepts in education is that of the objectives of education systems. It is often said that among these objectives should be the development of life skills, and preparation of students to participate competitively in a increasingly globalized labor market. Such skills open greater income opportunities and, consequently, contribute to improve general economic equity and to provide people with the tools required to be well-integrated and participatory citizens in society (impact indicators). Furthermore, in seeking to fulfill these over-all objectives, they should be efficient, effective, equitable, and of high quality (indicators of education system performance).

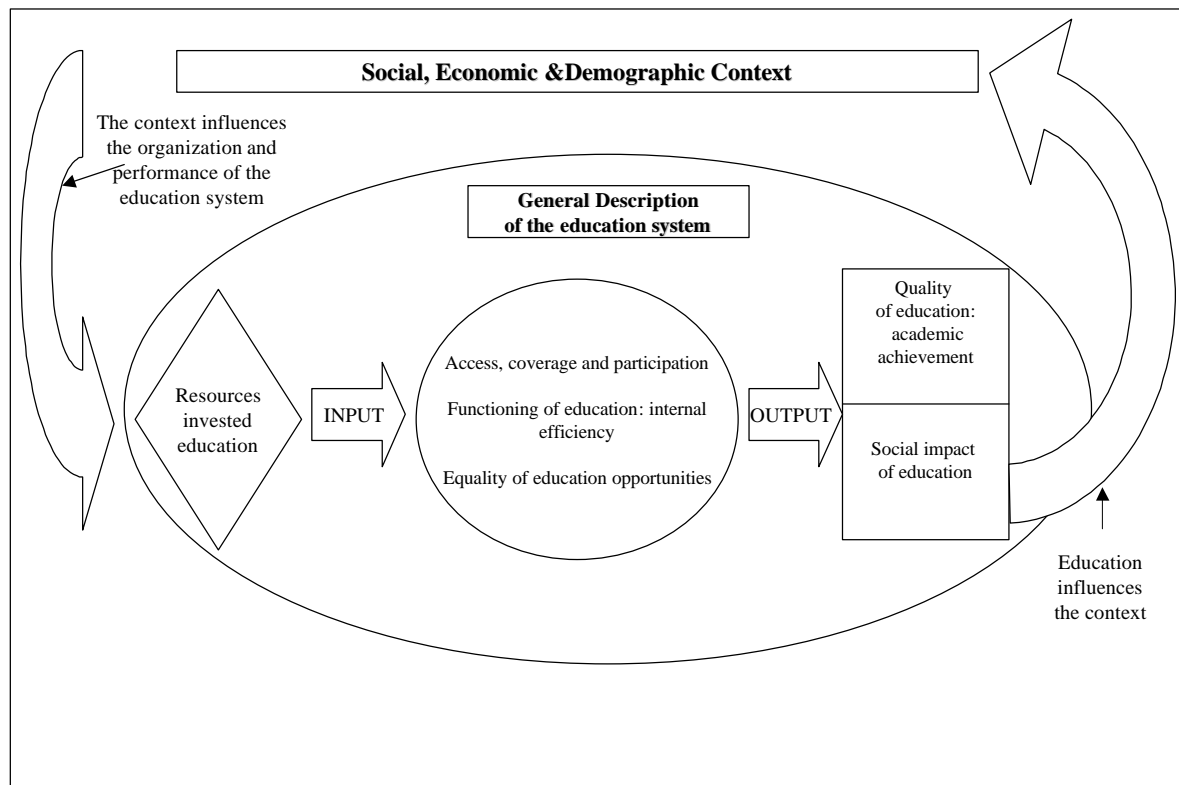
Internationally comparable education statistics and indicators must consider the impact of education on society. This means that such systems must take into account the priorities of education as well as emerging issues in education policy. By so doing, statistical systems remain politically relevant. Their products will be taken into account in policy decision making. This is, after all, the basic function of any education information system.

Consequently, in order to assure coherence between indicators to be developed, the following items should be considered:

1. Analysis of the demographic, social, and economic contexts within which education is developed.
General description of the education system
2. Human, material, and financial resources invested in education
3. Access to, coverage of, and participation in the system
4. Internal efficiency
5. Equality of educational opportunities
6. Quality of education: academic achievement
7. Social impact of education

Figure

Conceptual Framework of Indicators



A conceptual model of the relations between different aspects of the indicators is presented in the figure above. This model considers the context within which education is developed and how it is organized. Then it considers the inputs directed at education measured in terms of human and financial resources. It also calls attention to the functioning of education itself. Finally, it looks at the outputs of education in terms of achievement and social impact which, in their turn, affect upon context.

Using this relational model, five wide categories of indicators can be developed. They are described below. These categories and their indicators seek to answer important questions that appear during analysis and decision-making of education policy. Among these questions are: Is the school-age population well served? Is the education process efficient, guaranteeing that all share its benefits? Are human and financial resources sufficient and of adequate quality given the needs of the system? Is quality education being achieved for all? What is the social impact of education?

Category 1: Demographic, Social, and Economic Contexts and General Description of the Education System.

The indicators within this category give a general view of the context within which education is developed. It considers as well the over-all panorama of the organization of a country's education system; the activities and time period of education levels and the distinctive characteristics of the system. It provides information as well regarding the scope of education, taking into account the coverage characteristics of the system of education.

Category 2: Resources for Education. The indicators that make up this category allow us to estimate the availability, characteristics, and distribution of human and financial resources that contribute to the educational process. These indicators allow us to calculate the availability, characteristics and distribution of human resources in the educational sector - resources that are considered to be key for the development of any system of education. Similarly, indicators of material resources are necessary in order to provide information regarding the system's adequacy. Indicators of cost and financing of education indicate the sources of resources by separate sectors and/or participants as well as where the resources are used. The relationship between resources dedicated to education and educational results allow us to arrive at conclusions regarding the effectiveness of education in terms of cost and quality of resources utilized to provide education services.

Category 3: Education System Performance. This category centers on the achievements of education systems: access and participation of the population in education according to different dimensions of equity (gender, geographic, ethno-linguistic, disability, social and economic level). It also covers indicators which consider the efficiency of the system, that is, the way the education processes function in terms of academic failure, grade repetition, and others.

Category 4: Quality of Education. The major concern of current education policies centers on assuring quality with equity, broadly understood. Academic achievement, expressed as results on standardized and comparable tests is usually considered within this category. There are, however, other possibilities, not yet well developed, that can express education quality. This category requires more attention in its relation with the indicators in Category 3, particularly in regard to system efficiency.

The development of this category will be a shared responsibility together with activities within the Regional Project of Quality Assessment which is being carried out as follow up to the II Summit of the Americas, in the Line coordinated by Brazil.

Category 5: Social Impact of Education. This category offers a great opportunity for analysis of the interface between education and society. It includes indicators relate to the impact of education beyond the education system itself: on the labor market, on social and economic equity, on civic behavior, among others. In spite of their utility for decision-making, in many of their conceptual and methodological aspects, indicators in this category are little developed within the region. This, together with the small amount of information processed and utilized within countries in order to make data comparable, argues for making progress in developing the conceptual bases of this category of indicators. This is a great challenge for the project

2. Background of and justification for the project

Review of diverse declarations of meetings of presidents and of ministers of education during the last decade highlights the high expectations that both politicians and the public have for education. The II Summit of the Americas, held in Santiago, Chile in 1998, created an Action Plan for Education within the region. The major objectives sought by the plan are:

1. To assure that by the year 2010 all young people have access to quality primary education, and that at least 75% of young people have access to quality secondary education, with increasingly higher percentages of students who complete secondary school.
2. To offer education opportunities to the population in general.

In order to achieve these objectives, national governments undertook to carry out a number of activities, including assessing the state of education through a set of hemispheric indicators.

On the multilateral level, governments committed themselves to promoting country-to-country cooperation in the area of education. They requested that international organizations support programs that contribute to achieving the objectives outlined in the Action Plan. Among these, of special interest are those that strengthen regional cooperation in various areas considered, including the up-dating of education statistics and the assessment of educational quality.

In regard to education statistics and indicators, during the Meeting of Ministers of Education of participating countries of the II Summit of the Americas (Brasília, July 20-22, 1998), the Chilean Ministry of Education offered to coordinate the design and execution of a regional project in the area of coordination and assessment of education indicators, part of the Summit Line of action coordinated by Brazil. At that meeting, a number of countries manifested their interest in the project. Thus, in September 1998, the Chilean Ministry of Education presented a preliminary project profile to interested countries. The Interagency Committee recommended that the proposal be prepared in collaboration with UNESCO, and later during a meeting of the Plan of Action Follow Up Group (Mexico, March 1999), preparation was further advanced. In July of 1999, during a meeting held in Washington, DC, the preliminary version of the project developed by the Ministry of Education of Chile in cooperation with UNESCO/OREALC was analyzed, and a strategy of action and possible financing was developed. In a second meeting held in Washington (March 2000), the action plan and financial strategy were reviewed and commitments made to make the project viable.

Seeking to respond to the recommendation of the Inter-Agency Committee and to incorporate within the project design advances made in the region through actions of the Regional Information System (SIRI), the Ministry of Education of Chile and OREALC/UNESCO have established an agreement to develop such tasks. Collaboration with the UNESCO Institute for Statistics will come through use of their information gathering questionnaires and work on indicator construction (agreed to in a meeting in Jamaica, May 14-15, 2000)

3. Current situation of indicator construction within the region

3.1 General considerations

Some sub-regions within Latin America and the Caribbean have worked to strengthen the processes of integration in the area of education through the creation or improvement of information systems and indicators that make possible comparisons of the behavior of national education systems. Different sub-regional forums such as MERCOSUR, the Andrés Bello Agreement, Central American Educational and Cultural Coordination, the Organization of Eastern Caribbean States and CARICOM have approached the theme of the generation of comparable education indicators. In addition, countries within the region participate in a number of regional and international projects. Among these are the monitoring of the II Summit of the Americas (Santiago, Chile, 1998), the assessment of the Jomtien Education For All (EFA) commitments, and the UNESCO/OREALC assessment of the Major Project in the Field of Education. Others participate in initiatives at the world level such as the UNESCO/OECD World Education Indicators Project and the UNESCO World Indicators Program, sponsored by the new UNESCO Institute for Statistics, created in 1999 with the support of the World Bank.

Statistics agencies within countries are consequently subject to multiple demands for the construction of indicators. They are responsible for the collection of statistics (which consumes a large part of their time and resources). They calculate indicators and disseminate the information. This is but one dimension of their work. They also must respond to information demands from users at the local, sub-national, national, and international levels. The multiplicity of functions, combined with scarce resources, limit possibilities for improving information in terms of internal coherence and interpretive validity. It also reduces opportunities to explore new fields that are important for education policy.

The multiplicity of initiatives for the generation of indicators is a measure of current interest in the theme both by countries as well as by international organizations. But it also signals the need for coordination of these initiatives and for creating more efficient procedures that give more order to data collection efforts, thus avoiding duplication of effort within countries attempting to construct comparable indicators.

This project seeks to link these separate efforts and to create a synergy between international organizations and national governments and is not a parallel, additional initiative. It will bring together separate efforts, guiding them toward a common goal: the generation of a set of basic, comparable indicators within the region. In this, it recognizes that the MERCOSUR countries already have comparable systems of information and statistical indicators, while the Central American countries have been able to jointly produce an annual report. In the Seminar Workshop on Education Statistics held in Cartagena de Indias (September, 1998)¹, the member countries of the Andrés Bello Agreement committed themselves to creating a set of comparable indicators that would track the performance of the respective education systems.

3.2 *Some recent background*

The Regional Seminar Workshop on Education Statistics and Indicators in Latin America and the Caribbean met in January 1999². During these meetings, representatives of each sub-region presented reports on progress and problems the area of statistics and comparable indicators. From these presentations one can arrive at the following conclusions:

- There is a need to establish a system that facilitates the construction of indicators of the cost and financing of education.
- There are problems regarding the reliability of information and of estimates.
- There is a lack of disaggregated population projections.
- There is a lack of pre-school education statistics.
- There are subjects that should be studied in more depth in future work plans in the region. Among these are: cost and financing of education; transition and the flux of the school population; indicators of infrastructure and capacity; identification of sources of information by indicator, hours worked and human resources; population (urban and rural definitions and projections); economically active population; and indicators for the population outside the education system.

Among the agreements and recommendations of the January, 1999 seminar, of special note are (1) the selection of a basic set of 32 agreed-upon indicators for the region; (2) the need to adopt various mechanisms for cooperation; and (3) strengthening the relationships between Central American countries, the Andrés Bello Agreement countries, and those that make up MERCOSUR to generate a synergy in the construction of internationally comparable and useful indicators for the definition of education policies.

Similarly, in the recently held sub-regional preparatory workshops for the assessment of the Education For All program³, participants noted difficulties in obtaining comparable indicators among countries. These are:

- Countries have different systems for collecting statistics
- Countries use different terminology and definitions
- The methods for calculating indicators may be different in respect to those suggested by EFA
- There is a lack of complete information on early childhood education
- In some cases, there is a lack of information by age
- There is a lack of information about whether teachers have or do not have degrees
- Differences in the availability of information for some years from national reports (1994,'95,'96, etc.)
- Literacy rates for recent years are estimates because census data in the region date from the beginning of the decade. More up-to-date information is expected from the year 2000 census. There is a need to use estimates or complementary sources.
- Distinct degrees of reliability in official statistical data

¹ Seminar organized by the UNESCO Regional Office of Education (OREALC) in cooperation with the Executive Secretariat of the Andrés Bello Agreement (SECAB) with the participation of CAB and MERCOSUR countries.

² Organized by the UNESCO Regional Office of Education (OREALC) in cooperation with the UNESCO Statistics Division (Paris).

³ Santiago, Chile, June 16-18, 1999 and in Costa Rica (July 5-7, 1999).

- Non-availability of non-aggregated information by sex may make it difficult to compare data with other regions
- Statistical systems of countries receive data requests from diverse international organizations
- Problems of availability and comparability of learning achievement indicators

This gives us an idea of the situation in countries in regard to current initiatives. Such information will be considered in the preparation and execution of the Regional Project.

4. Basic criteria for carrying out the project

The Education Indicators Regional Project will meet certain basic criteria. These are as follows:

- It will organize and coordinate the efforts of countries, making use of experience in the generation of comparable education indicators, making the process more efficient and effective. It will promote country-to-country cooperation, based on the strengths and positive experiences found in previous studies.
- It will be constructed based upon the educational priorities of the region as expressed both at the Summit of the Americas, within various meetings of ministers of education, of country specialists, as well as those that appear during development of the project.
- It will use a gradual approach in regard to adherence of countries to the Project, depending upon i) their interests and abilities to participate, ii) the development and gradual incorporation if necessary, of new indicators into the basic program. At the end of the project it is hoped that all countries in the region will have developed a complete set of indicators.
- Together with the construction of indicators, the conceptual definitions and methodology of which will be part of the Project preparation, effort will be made to develop indicators for areas which currently lack conceptual and methodological clarity. This is particularly the case for the area of equity and of the social impact of education.

Expected Results

After three years of operation it is expected that the Project,:

- Will have provided countries with a set of comparable education indicators - developed with their active participation - that will permit them to make better education policy decisions.
- Will have encouraged the use of quality information in education decision-making.
- Will have created a continuing process of strengthening statistical systems of countries within the region, and that this process will soon result in a specific program of technical cooperation to assure its continuation.
- Will have contributed to the strengthening of a on-going regional education information system.

II. OBJECTIVES AND COMPONENTS OF THE PROJECT

IN ORDER TO REACH THE LONG-TERM GOAL OF THE CREATION OF A PERMANENT EDUCATION INFORMATION SYSTEM IN THE AMERICAS, THE PROJECT HAS DEFINED THE FOLLOWING OBJECTIVES

1. General Objective

In line with the objectives established in the Action Plan of the II Summit of the Americas, this project has the general objective of producing and analyzing a set of basic comparable indicators within the region that will contribute to education policy decision-making by national governments.

2. Specific Objectives

- a. To construct a basic set of comparable indicators in education, using a common methodology, which will promote to unify efforts in this area on the part of international organizations, sub-regional organizations, and of the governments in the region.
- b. To provide technical support to countries for the construction of the indicators and to identify the current state within countries of statistical systems in education. Such information will provide a basis for developing programs of technical cooperation.
- c. To encourage the use of information generated by the set of basic comparable education indicators, which will be presented periodically to present the current state and analysis of education within the region.

3. Project Components and their Descriptions

In order to achieve the above objectives, three complementary components have been identified:

- a. Construction of comparable indicators.
- b. Technical cooperation with countries in the development of comparable indicators.
- c. Dissemination and analysis of the indicators

a. Construction of comparable indicators

This component seeks to select, develop, and calculate a basic set of comparable education indicators, taking into consideration the basic criteria mentioned above, and emphasizing the following:

- making use of national efforts for indicator development, certifying methodology and simplifying calculation procedures.
- following a coherent method indicator analysis.
- computation of indicators should be within the means of most counties in the region within the time frame established by the Summit.
- the basic set of indicators may vary as necessary in order to embrace emerging themes in education policy that may be of interest to countries.

The educational levels proposed to be given particular attention are⁴

1. Pre-school (coverage and requirements)
2. Primary education (required cycle)
3. Secondary education (education cycle following primary and which is a gateway to more advanced levels or directly into the labor market, or both).

In addition, phases for the development of indicators are identified, each with its respective activities: a preparatory phase, and a construction phase.

⁴ The standard for comparison of educational levels shall be the International Standardized Classification of Education (ISCED), official approved version of 1997

1. Preparatory Phase: dedicated to the selection of the basic set of indicators proposed to countries by those responsible for the project and dissemination and discussion of their content in order to encourage participation in the project by countries of the Americas.

The activities foreseen for this phase are:

Activity: Selection of the indicators that will be included in the project and their respective methodologies. Given that the project seeks to create a “system of comparable indicators for the region” taking advantage of existing efforts the preparatory phase will take into consideration, according to the categories of indicators presented, the development of and proposals for indicators already undertaken by the countries themselves⁵ and by international organizations that are working in this area, in particular OREALC’s SIRI project and UNESCO Institute for Statistics’ work, taking into account the feasibility of construction with available information.

The set of indicators to be included in this project should be such that required data can be collected by countries with diverse levels of development of their information systems and with diverse priorities. They should be interested in collecting such data and, according to the “gradual” criterion defined for carrying out the project, to construct, year by year, the indicators within the set. Thus, international comparisons for each indicator will in time include an increasingly growing number of countries. To this effect, the project foresees the functioning of working groups that will be described below, in which countries will validate and select those indicators most pertinent to their national circumstances.⁶

Consequently, the basic indicator set selected in this preparatory phase takes into consideration the existing experiences, concerns, and priorities of an important number of countries. They provide answers the major questions of education decision makers and of the community. Annex 1 presents the basic indicator set selected in this category.

The indicators to be included in the project will have a single methodology in terms of comparability-definition, range, and computation algorithm. This may require adopting or adapting selected aspects of currently used methodologies that are considered most technically appropriate among existing initiatives.

The preparatory phase of the project will also identify software and communication compatibility requirements among countries.

Inform countries about the project and invite them to participate Because the countries of the Americas will be the major actors in this project, it is of key importance that they know and discuss its objectives, procedures, and set of internationally comparable indicators and methodologies. The countries will be invited to participate actively – and gradually, if they so desire - in the construction together of a set of comparable indicators. To that end, agreement has been reached with the UNESCO Institute for Statistics that its next two workshops on dissemination of questionnaires and use of the ISCED classification will offer an opportunity to introduce the categories and indicators proposed by this project. 2. Indicator construction phase, dedicated to collecting information from countries and the processing of the information by the UNESCO Institute for Statistics in strict coordination with OREALC and the Ministry of Education of Chile.

This foresees the following activities:

⁵ Annex 2 presents the selected indicators in each category. A significant number of them have been suggested due to their ease of calculation in the short term, by technical representatives of ministries of education in 13 countries within the region during the UNESCO Seminar of Education Statistics held in Santiago, Chile in January, 1999.

⁶ Each country may consider the technical feasibility of constructing each indicator as well as its policy relevance, and may suggest and adopt the indicators that it deems most pertinent to its circumstances.

Joining the project: The administrators of the project will seek the opinions of the ministers of education as part of the response of countries to the invitation to participate from the Ministry of Education of Chile and by OREALC.

Establishment and functioning of Working Groups Countries are the major actors in the project. Therefore, we propose that Working Groups be created. Made up of specialists, they will have the following responsibilities:

- They will consider the conceptual categories of the project and their respective indicators. They will reflect upon their importance and will discuss in depth the specific methodologies to be used in their construction.
- They will exchange experiences and provide technical assistance in regard to the use of information, supporting countries in considering their possibilities for working with the proposed indicators.
- They will collect information about and discuss past experiences of countries in working with the selected indicators as well as others that may be incorporated as the project progresses.
- They will review and discuss forms of analysis and dissemination of the constructed indicators as well as the possibilities of their use in education policy making.
- Additional indicators will be added to the basic set in the future. During project execution advances will be made in the identification and development of other indicators pertinent to the region.

The project proposes to create five specific working groups, following the categories of indicators described above. A first phase will emphasize the work of groups 1, 2, and 3, given that the last two will require further conceptual development and inputs external to the project. (See Annex 2)

Group 1: Demographic, social, and economic context and general description of education systems

Group 2: Resources in education

Group 3: Education system performance

Group 4: Quality of education

Group 5: Impact of education

Countries joining the project will define how they wish to participate in the proposed working groups, according to their own interests. They will nominate the specialists who will make up the working groups.

The working groups will operate in two complementary modes: 1) through meetings which will take place at least once per year, and 2) through a computer network using new communication technologies.⁷ Their work will be coordinated and encouraged by UNESCO/OREALC through its role as technical advisor to the project and will also have cooperation from the UNESCO Institute for Statistics. The functioning of the working groups will begin with a meeting at which a WORKING NETWORK will be created that will facilitate the process of ongoing interaction between countries and the specialists responsible for the components of the project. Subsequently, there will be annual meetings to provide continuity to designated tasks of the working groups.

Preparation of questionnaires Maximum possible use will be made of already existing instruments (UNESCO Institute for Statistics, OECD/UNESCO and others). Additions will be only for what is required for the construction of pre-determined indicators that is not present in available instruments.

⁷ The Estadsur network may be utilized. It was created within SIRI with the cooperation of PREAL

Data collection. Use will be made of currently available means of electronic questionnaire generation. After a review of current procedures for data collection used in projects within the region (UNESCO/OECD and others) advantages and disadvantages of currently used data collection instruments were identified and it was agreed to use the information collected by the UNESCO Institute for Statistics through their statistical questionnaires. Strict coordination with the UNESCO Institute will make it possible to avoid the duplication of effort of data entry by countries. Eventually, the project will directly collect only data necessary for the calculating indicators proposed in the first phase of the project which are not included in the UNESCO questionnaire or from other sources. Definition of education levels will follow the International Standardized Classification of Education Data (ISCED), officially approved in 1997.

Data processing Calculation and automatic validation of the indicators for participating countries will take place through the program of work of the UNESCO Institute for Statistics, in coordination with OREALC. OREALC will provide periodic reports to countries to provide feedback on indicator construction and their dissemination.

b. Providing technical support to countries for construction of comparable indicators

This component seeks to provide technical support to countries for the construction of the indicators. Taking advantage of the progress gained within the working groups, and in coordination cooperation with countries, we will carry out an up-to-date diagnosis of the availability of information for computing the indicators. Support will be given to those who require and request it. As a result of this component we expect the development of a program proposal for longer term technical cooperation to be carried out at the end of this project.

A review of the current state of national systems of education statistics and indicators is a necessary step given that these systems will be the major sources of production and analysis of information. In Latin America and the Caribbean some strengths and weaknesses of national statistical systems stand out.⁸ The major strengths are:

- There are laws in the countries that require the periodic collection of statistics
- Ministries of education have offices dedicated to generating statistics for the sector
- Countries use mostly the same variables for computing basic indicators
- There is political will and support from international organizations
- Potential access to technologies
- National education statistics offices have the possibility of accessing complementary sources of information

Among major weaknesses are:

- Human and financial resources are scarce.
- Absence of common conceptual framework, resulting in problems with concepts, methodologies, and definitions.
- Lack of a tradition among policy makers of using information
- Lack of national and international coordination in projects for developing indicators

⁸ McMeekin, R.W. “*Estadísticas educativas en América Latina y el Caribe*”. Technical report. Financed by the Ford Foundation, developed by UNESCO-Santiago and published by the Inter-American Development Bank. Washington. March, 1998.

- Operational difficulties in countries to obtain data on costs and financing
- Unavailability of data for indicators of efficacy and equity
- Tendency on the part of education statistics offices to limit information they collect to that which is purely education related and to ignore other data sources.

This component proposes to carry out the following activities:

Carry out a regional survey of the availability of basic statistical information for developing indicators within each country. By contrasting information available nationally with the proposed indicators and their pre-established computation methodologies (with the participation of technical experts from each country) through an analysis of the statistical information that countries provide to UNESCO, we can determine the availability of data, which variables are collected and their level of disaggregation. In addition, we will see where information gaps occur. The first phase of this diagnostic activity will take place during the two workshops to take place in July of 2000.

Identify those countries which most require and demand technical cooperation in order to support them in the development of indicators. The purpose here is to have a point of reference in order to prepare the project's responses to demands for cooperation from participating countries. Identification will be based on a preliminary analysis of the current state of national statistical services, on the results of the development by countries of 18 assessment indicators of the EFA program, and on the opinion of the country's specialists about the country's strengths and weaknesses. We will also take into account experiences of participating countries in the UNESCO/OECD World Education Indicators Project and the results of the workshops to take place in cooperation with the UNESCO Statistics Institute.

Visit countries that require and request cooperation in order to provide technical support for the methodology of comparable indicator development. The visits will serve to identify the availability and characteristics of information for indicator computation. The visits will seek:

- to determine *in situ* and in direct contact with those responsible, what information is collected, how it is generated, and characteristics of data that countries process and publish.
- To identify difficulties national statistical systems face in data collection and processing in the areas of feasibility, reliability, and comparability with other countries. The origins or causes of such difficulties will be assessed as well. This task can be carried out through interviews with responsible authorities as well as through on site observation of the data generation process. In the latter case, one can analyze how primary data is collected, methodological norms, competency of personnel, quality of material resources, etc.
- To offer technical assistance to help resolve difficulties and to contribute in identifying possible sources of financial resources to improve the system.

Identify the need and interest that exist in countries to participate in the technical cooperation process aimed at improving national education statistics systems. Since an expected result of the project is the development of a program of technical cooperation that strengthens national statistical systems in the region, it is important to identify country needs and interests for such an activity. The demands and needs for technical cooperation will be products of the diagnostic reports and on site visits. They will also come from the experiences of technical cooperation foreseen in the joint SECAB/OREALC program and others, like those in the Caribbean subregion. The formulation of a detailed regional program of technical cooperation will be directed at technical training in education indicators and statistics and at the modernization of management of information, among other areas.

c. Dissemination and analysis of the indicators

In order to make an effective contribution to the development of education systems in the region it is necessary to interpret and analyze the data at two levels. The first level has to do with understanding the meaning of the indicators and using available instruments properly. The second level refers to the use of an adequate theory to

serve as a guide in formulating questions and guaranteeing the consistency of answers. What is needed is a model that aids in interpreting the relations among different variables that impact upon education.

The objective of this component is to provide countries with comparative information that is reliable, relevant, timely, and assessable and which will make education policy decision making more effective in the region. Indicators and statistical data will be organized to be published periodically (annually or biannually) and complemented by a full analysis for the region that can incorporate information from relevant studies and research carried out within the region. In addition, other information from both the education sector and from secondary sources will be included which will provide more complete analyses of problems, facilitate understanding and, therefore, make possible more adequate policy analysis and response.

Success in policy making requires analysis and interpretation of information that allow education decision-makers to differentiate key problems from those that are passing and short-term, and to have as a reference the situation of other countries in the region.

In synthesis, it is suggested that two activities be carried out

- a. An analysis on the regional level, integrating other information coming from studies and research within the region.
- b. A periodic regional publication, in collaboration with each participating country, that treats the indicators and their analysis. In addition, use will be made of instruments established under the framework of the Summit, such as a Web page of indicators, to disseminate information and analyses coming from the project.

I. TIMETABLE, COST AND FINANCING

Activities	Preparation		Year 1		Year 2		Year 3	
	1 SEM	2 SEM	1 SEM	2 SEM	1 SEM	2 SEM	1 SEM	2 SEM
Project Preparation Stage								
1. In each category, selection of indicators and their methodologies	X							
2. Information sent to countries and invitations to participate in the project	X	X						
3. Obtain financing	X	X						
Project Execution Stage								
<u>1. Construction of indicators</u>								
a. Process of countries joining the project & opinions regarding indicators they consider most important - Basic set - Updated set		X	X			X	X	
b. Creation and functioning of Working Groups (technical meetings and contacts through Web			X	X	X	X	X	X
c. Preparation of on-line questionnaires		X	X					
d. Collection of information from countries and from other sources (UNESCO Statistics Institute)			X	X			X	
e. Generation of data base in UNESCO Statistics Institute			X	X			X	
f. Data entry and processing at UNESCO				X	X			X
g. Return to countries for revision				X	X			X
h. Final preparation of indicators					X			X
<u>2 Technical cooperation with countries for development of comparable indicators</u>								
i. Development of diagnosis	X	X	X					
j. Identification of countries that require cooperation and on-site visits		X	X	X	X	X	X	X
k. Preparation of proposal for program of future cooperation						X	X	X
<u>3. Dissemination and analysis of indicators</u>				X	X	X	X	X
Assessment Stage		X	X	X	X	X	X	X

The estimated cost of the preparation phase of the project is approximately US\$190,000, which is broken down by institution, concept, and amount in the following chart:

Institución	Concepto	Monto estimado
Ministry of Education of Chile	Travel ⁹	US\$ 15.700
	Labor ¹⁰	US\$ 8.600
OREALC ¹¹	Travel ¹²	US\$ 10.250
	Labor ¹³	US\$ 51.480
SECAB (Convenio Andres Bello)	Statistics workshop (October 1999)	US\$ 20.000
	Travel to Washington, DC (March 2000, 2 people)	US\$ 3.000
U.S. Department of Education	July 1999 meeting	US\$ 15.000
	March 2000 meeting	US\$ 15.000
UNESCO Kingston	Travel to Washington, DC (March 2000, 1 person)	US\$ 1.100
	Meeting in Jamaica (May 2000)	US\$ 5.000
UNESCO Statistics Institute	Workshops	US\$ 28.000
Other countries: Brazil, Canada, Mexico	Travel to two technical meetings in Washington, DC	US\$ 15.000
	Travel from Brazil to Chile (August 1999)	US\$ 3.200

⁹ Two trips to Washington (3 people), one trip to Brazil (one person), and one trip to Jamaica (2 people)

¹⁰ Calculated with a value equivalent to US\$ 715 per month per person (5 full days per month) for two people and 12 months US\$ 8.580

¹¹ OREALC's support comes in part from the regular UNESCO program and the other from extra-budgetary project in cooperation with the Ford Foundation

¹² Estimated cost for 2 trips to Washington (2 people), one trip to Brazil (one person) and one trip to Jamaica (one person).

¹³ Considered an average of US\$1.430 per person (10 full days per month) for three people and 12 months.

The cost of the Project is as follows (see Annex 3):

**Education Indicators Regional Project
Summit of the Americas**

Total Budget by Component	(totals in US\$)
General project coordination	382,760
Component 1: Development of Indicators	810,240
Component 2: Technical Support to Countries	539,040
Component 3: Dissemination and Analysis	85,000
Unforeseen and Overhead (10% est.)	181,704
Total	1,998,744

**Education Indicators Regional Project
Summit of the Americas**

Total Budget by Line	(totals in US\$)
Consultants	671,000
Transportation & per diem	134,000
Computing equipment	12,000
Meetings	863,000
Communications	47,000
Publications	78,000
Distribution	12,000
Unforeseen & Overhead	181,704
Total	1,998,744

For their part, countries will have project costs estimated as equivalent to two full time people during 2 months for each year of project execution. This comes to an estimated value of US\$2,500 per month per person. Each country, therefore, will be responsible for personnel costs equivalent to US\$10,000 for the entire project. Considering 40 countries, the over-all cost is approximately US\$40,000.

IV. ORGANIZATION AND MANAGEMENT OF THE PROJECT

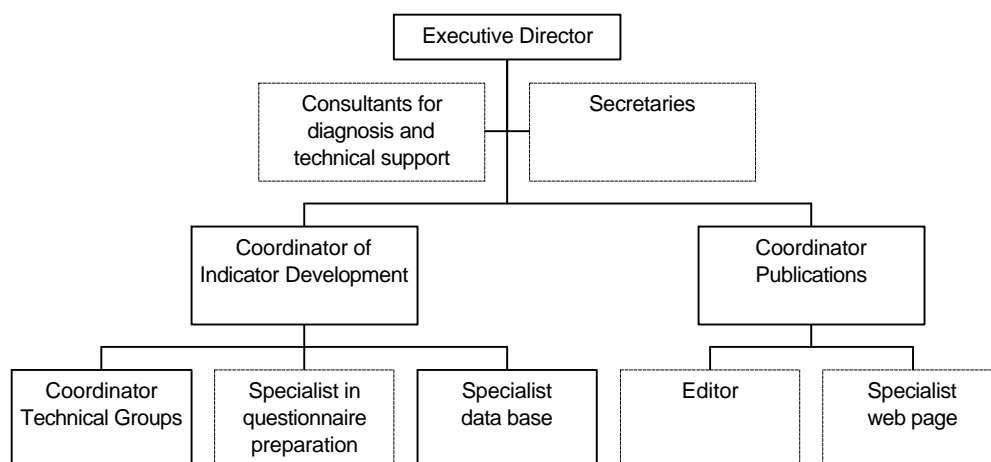
In order to define the organization and management of the project, we need to consider the roles and relations of different participants.

Participant	Role
Countries of the region	<ul style="list-style-type: none"> • Identify the indicators they consider to be priority to begin their participation –criterion of gradual entry-. Depending upon interests and feasibility, gradually increase coverage of indicators. • Actively participate in the execution and assessment of results, fulfilling their responsibilities and commitments during the development of the project. • Actively participate in the Working Groups, according to their interests and priorities. Development of working networks with face-to-face meetings and internet communication. • Establish permanent coordination teams¹⁴/or counterparts in each country to serve as designated contacts for all exchanges of information, inquiries, discussions, and offers and requests for cooperation arising from the Regional Project. The creation of these coordinating teams is key in order to obtain needed ease of communication among participating countries.
Country responsible for education statistical indicators project design and execution – Chile	<ul style="list-style-type: none"> • Policy and technical development of project. • Carry forward policy component to reach agreements regarding working plan of project. • Establish mechanisms and cooperative agreements to carry forward project • Monitoring and assessment of the project for Summit authorities.
Coordinador de la Línea de Indicadores Educativos Estadísticos y de Evaluación-Brasil	<ul style="list-style-type: none"> • Promote political support for the successful achievement of Line objectives • Promote coordination between statistical indicators project (Chile) and assessment indicators (Brazil)
Technical cooperation agency: UNESCO/OREALC	<p>*Promote technical support for the design and execution of the project by, for example:</p> <ol style="list-style-type: none"> 1. Design and implement technical cooperation to the countries 1. Facilitating technical agreements between subregional initiatives and with all countries in the region and establish links between the Summit Project and world initiatives on education indicators. 2. Design and implement and effective and efficient working model 3. Coordinate the Working Groups made up of country representatives 4. Collect information with UNESCOInstitute for Statistics 5. Compute indicators with UNESCOInstitute for Statistics 6. Prepare analysis and dissemination of indicators in coordination with UNESCOInstitute for Statistics
Technical and financial cooperating doner organizations for development and execution of the project.	<ul style="list-style-type: none"> • Technical and financial support for the project • Provide means for countries to utilize resources currently designated for institutional strengthening of ministries of education statistical offices IDB and World Bank and multilateral and bilateral agencies)

¹⁴ An initiative put forth by UNESCO and ratified at the Statistics and Indicators Seminar held at the OREALC offices (Santiago, January, 1999).

The Regional Education Indicators Project has the technical support of UNESCO-OREALC, which will collaborate with the countries in the preparation and execution of the project and to which will carry out the technical tasks, specifically in regard to the selection of indicators, standardization of terminology, coordination of Specialized Working Groups, preparation of data collection on instruments, collection of information, computation and analysis of indicators with the UNESCO Institute for Statistics, review and preparation of reports, and will seek agreements for the publication and dissemination of the results.

In order to carry out its technical aspects, the Regional Indicators Project will have the following organization:



Since UNESCO-OREALC will be responsible for developing the technical aspects of the Regional Indicators Project, the formal relationship with the Ministry of Education of Chile and with other countries of the Summit will be the responsibility of the Director of the Regional Office Of Education of UNESCO for Latin America and the Caribbean. The technical team will be headed by an Executive Director, who will be responsible for project coordination. In addition, a Coordinator for Indicator Development will be contracted, as well as a person responsible for publication. Each of these individuals will direct consultants under their responsibility. The Technical Support component will answer directly to the executive director. The project will require two secretaries for logistical support during project implementation.

ANNEX I

Objectives of the II Summit of the Americas and Indicator Categories

Using as a basis the categories of indicators described above, we have developed a matrix that helps visualize the points in common between the objectives of the II Summit of the Americas and the categories of the projected study.

Relation between objectives of the Summit and categories of indicators

Objectives of the II Summit of the Americas	Indicator Category	Level of development in the project
<ul style="list-style-type: none"> ▪ Carry out compensatory and inter-sectoral education policies, with special attention to the most vulnerable groups ▪ Establish, in accord with legislation, education strategies directed at multicultural societies. ▪ Strengthen education management and institutional capacity on the national, regional, local, and school levels. 	Category 1; General description of the education system and context. Category 3: Performance and participation with equity; Internal efficiency	Indicators in Annex I will be constructed, according to the interest of each country.
<ul style="list-style-type: none"> ▪ Developed integrated programs for professional training for school teachers and administrators ▪ Promote access to and more efficient use of information and communication technologies. ▪ Promote scholarships and exchange of students, teachers, and education researchers, and administrators. 	Category 2: Education resources	
<ul style="list-style-type: none"> ▪ Assess the quality of education using national, sub-national, and sub-regional indicators ▪ Incorporate within education democratic principles, of human rights, gender equality, peace, tolerance, and respect for the environment and natural resources. 	Category 4: Quality of education	Goal will be advances through studies to identify the diverse means of assessing the quality of education today in the region and in the world. Available information on measurement of academic achievement in the region will be used in order to present comparable information
<ul style="list-style-type: none"> ▪ Strengthen the training and education of workers taking into account the adoption of new technologies. 	Category 5: Social impact of education	Goal will be advanced with studies of social impact indicators.

ANNEX 2

Categories and Basic Indicator Set

Category I. Social and Economic Context and Description of the Education System

Sub-Category 1: Demographic, Social, and Economic Context

1. Total population, by age from 0 to 24 years and for age groups from 25-29, 30-34, 35-39, 40-49, 50-59, and 60 and above.
2. Urban and rural population.
3. GDP per capita.

Subjects to be analyzed by working groups:

- Population by ethnic group and/or language
- Distribution of income
- Others

Sub-Category 2: Description of the Education System

4. Age range for obligatory schooling.
5. Number of hours in school week.
6. Number of hours in school year

Category II. Resources in Education

Sub-Category 1: Human Resources

7. Teachers possessing required academic degree(s).
8. Students per classroom teacher.
9. Average annual initial teacher salary expressed as percentage of GDP per Capita.

Subjects to be analyzed by working groups:

- Interest and feasibility of constructing indicators regarding classroom teachers as a percent of all teachers and students per section (class, year, term).

Sub-Category 2: Financial Resources Invested in Education

10. Total expenditures for education expressed as percentage of GDP.
11. Total public expenditures for education expressed as percentage of GDP.
12. Private expenditures for education expressed as percentage of GDP.
13. Total public expenditures for education expressed as percentage of total public expenditures.
14. Current public expenditures for education expressed as percentage of public expenditures for education.
15. Public expenditures for capital expenditures for education expressed as percentage of public expenditures for education.
16. Percentage of public expenditures for education by education level.
17. Public expenditures for education per student by education level expressed as percentage of GDP per capita.

Sub-Category 3: Material resources for education

Subjects to be analyzed by working groups:

- Indicators for infrastructure, physical plant space, school equipment
- Others

Category III. Performance of the Education System. Scope and Efficiency of Education

Sub-Category 1: Scope of Education

18. Gross enrollment rate for the first grade of primary education.
19. Net enrollment rate for the first grade of primary education.
20. Net enrollment in primary and secondary education.
21. Gross schooling rate by educational level.
22. Net schooling rate by age from 0-24.

Sub-Category 2: Internal Efficiency

23. Passing rate by level and grade.

Subjects to be analyzed by working groups:

- Cohort models and indicators derived from these
- Percentage of above-age students by grade

Category IV. Quality of Education

Depends upon the *Assessment* line of action as determined in the Action Plan for Education of the Second Summit of the Americas.

Category V. Social Impact of Education

24. Literacy rate of the adult population.
25. Level of instruction within the adult population.

Subjects to be analyzed by working groups:

- Impact of education in the labor market, for income, in civic behavior
- Others

AGENDA OF COMPLEMENTARY THEMES TO BE ANALYZED BY WORKING GROUPS

1. **Category I.** - In the category of demographic, social, and economic context, besides the information and indicators selected in the basic set, during execution of the project progress should be made in the identification and development of parallel economic and social indicators in the region. Aspects such as the distribution of income and cultural, ethnic, and linguistic diversity are contextual characteristics of great importance for analysis of education. It is for this reason that it is considered imperative that the working groups review and analyze these aspects in order to propose new indicators for this category; ones that will complement and enrich the initial selection.
2. **Category II. - Sub-category 3.** - For material resources such as equipment and infrastructure, in view of the fact that these contribute to the quality of education output, it is important that the working group review and analyze current availability of information and methodological development in this area in order to move forward in the selection and development of indicators for the region. It is extremely important that these activities concentrate on identifying those resources that most affect educational results and that the group analyze the possibility of constructing such indicators, taking into account the complex nature of making them comparable between countries.
3. **Category III, Sub-category 2.** - For this sub-category, internal efficiency, in addition to those indicators contained within the basic set, it is also important that the working group review and analyze different alternative cohort models, as well as indicators that can be derived from these models. The purpose here is to assess the relevance and usefulness of efficiency indicators for countries within the region based on models of this kind and, depending on the results of such an assessment, to move forward in their development.
4. **Category V.** - An understanding of the "Social Impact of Education" is of primary importance in the analysis and formulation of policies within the education sector linked to national social policies. Therefore, the working group should review the conceptual and methodological development of internationally comparable indicators in this field in order to move forward in identifying relevant indicators and their respective methodological definitions.

We present below in tabular form the basic set of selected indicators together with the corresponding organizations that either already calculate them or have proposed to do so.

Nº	INDICATORS	INITIATIVES
1	Total population, by age, 0 a 24 years, and by age groups 25-29, 30-34, 35-39, 40-49, 50-59, 60 and above	MERCOSUR, WEI/UNESCO/OECD, SIRI/OREALC
2	Urban and rural population	MERCOSUR, UIS/UNESCO
3	GDP per capita	MERCOSUR, WEI/UNESCO/OECD
4	Age range for obligatory schooling	MERCOSUR, UIS/UNESCO, WEI/UNESCO, OECD
5	Number of hours in school week	WEI/UNESCO, OECD
6	Number of hours in school year	WEI/UNESCO, OECD
7	Teacher possessing required degree(s)	EFA, CAB, UIS/UNESCO, WEI/UNESCO, OECD
8	Students per classroom teacher	EFA, CAB, UIS/UNESCO, WEI/UNESCO, OECD
9	Annual average initial teacher salary, expressed as percentage of per capita GDP	WEI/UNESCO, OECD
10	Total expenditures for education expressed as percentage of GDP	WEI/UNESCO, OECD
11	Public expenditures for education expressed as percentage of GDP	UIS/UNESCO, WEI/UNESCO/OECD
12	Private expenditures for education expressed as percentage of GDP	UIS/UNESCO, WEI/UNESCO/OECD
13	Public expenditures for education expressed as percentage of total public expenditures	WEI/UNESCO, OECD, UIS/UNESCO, SIRI/OREALC
14	Current public expenditures for education as a percentage of public expenditures for education	WEI/UNESCO, OECD, UIS/UNESCO, SIRI/OREALC
15	Public expenditures for education capital as a percentage of public expenditures for education	WEI/UNESCO, OECD, UIS/UNESCO, SIRI/OREALC
16	Public expenditures for education per student as a percentage of GDP per capita by education level	WEI/UNESCO, OECD, UIS/UNESCO, SIRI/OREALC
17	Public expenditures for education per student, by education level, expressed as percentage of GDP per capita	WEI/UNESCO, OECD, UIS/UNESCO, SIRI/OREALC
18	Gross enrollment rate for the first grade of primary education	EFA, CARICOM, SIRI/OREALC, UIS/UNESCO
19	Net enrollment rate for the first grade of primary education	EFA, SIRI/OREALC, UIS/UNESCO
20	Net enrollment in primary and secondary education	UIS/UNESCO
21	Net schooling rate by education level	MERCOSUR, WEI/UNESCO/OECD, SIRI/OREALC, UIS/UNESCO
22	Net schooling rate by age, from 0-24 years	MERCOSUR, CAB, CARICOM, UIS/UNESCO
23	Failing rate by education level and grade	MERCOSUR, CAB, UIS/UNESCO, WEI/UNESCO/OECD
24	Literacy rate of the adult population	Population census
25	Level of instruction within the adult population	Home surveys