Reviews of National Policies for Education

Dominican Republic

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Foreword

Education reform is a priority of the Dominican Republic in response to the forces of globalisation and the demands of the knowledge society. With the decline of traditional economic sectors such as sugar and mining, the rise of tourism, entry into the World Trade Organisation (1995) and the Central American Free Trade Agreement (CAFTA), there is the recognition that education is crucial to the sustainable development of the country. Over the past 15 years, significant progress has been made in reforms of both compulsory and tertiary education in the Dominican Republic. This joint OECD report provides an overview of the impressive forward thinking and application of education reform in the country and offers advice on issues of access, equity, quality, and decentralisation of management and financing responsibilities.

Against the background report prepared by the Dominican authorities and information supplied in meetings in the course of site visits the examiners' report gives an analysis of the education sector within the economic, social and political context of the Dominican Republic. The final chapter brings together in the form of a synthesis specific recommendations and sets out how policies could be addressed system-wide, linked to priority issues of access and equity, governance, school leadership, student evaluation, and efficient use of resources.

This review of education policy was undertaken within the framework of the programme of work of the OECD Directorate for Education's Global Relations Strategy. The financing for the review was provided by the Government of the Dominican Republic.

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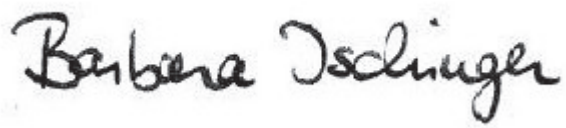

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TABLE OF CONTENTS

PART ONE:
Background Report prepared by the Dominican Authorities

REVIEWS OF NATIONAL POLICIES FOR EDUCATION: DOMINICAN REPUBLIC – ISBN- 978-92-64-04081-6 © OECD 2008

Introduction

Much has been achieved in education in the Dominican Republic, especially in terms of the United Nations Millenium Development Goals of Education for All, such as the development of pre-school education and free and compulsory primary schooling. In addition, improvements are needed in secondary and adult education, as well as a substantial decrease in illiteracy; greater gender equality; and raising the quality of vocational education and higher learning. This paper aims to provide background information about the history and socio-demographic development of the country, as well as its education system structure and the economic factors that affect finance flows in education.

The brief historical overview starts with the first independence period of the Dominican Republic and highlights some key events related to education, such as the creation of the school system, the reform of the Ten-Year Education Plan, the new Education Law 66-97, the establishment of the National System for Higher Education, Science and Technology and its upgrading to the ministerial level by law 139-01, as well as the expansion of vocational education.

As to the socio-demographic context, key population data are provided that show a phenomenal growth, from 895 000 inhabitants in 1920 to more than 8.6 million in 2002. Data are also given about the density and structure of the population, and about the labour market. These demographic changes and trends continue to have a strong impact on the school system, both in terms of demand for education and in terms of the economy's need for a better-educated workforce.

Chapter 1. Historical, Socio-Demographic and Economic Background

The first chapter provides background on the Dominican Republic. The historical perspective dates from the independence of the country in 1844 and gives details of the development of the education system and the passing of key education legislation. The chapter then discusses demographics in the present-day Dominican Republic and provides statistics on the total population, age distribution and employment figures. There is an overview of the economic situation including income distribution and the effect of this on the education system.

First Independence period

The Dominican people gained their independence from Haiti in February 1844. The first national government, the *Junta Central Gubernativa*, was composed of ten members and presided over by Tomás Bobadilla. However, almost at once the Junta was faced with a series of Haitian invasions (in 1845, 1849, and 1855-56) but managed to fend off repeated Haitian attempts to occupy the eastern portion of the island.

In 1844, there were some 125 000 inhabitants on this part of the island, most of whom lived in poor rural areas. The main economic activities were agriculture, cattle-breeding and wood cutting. Internal trade was insignificant, as a result of the low levels of production and the lack of roads. Foreign trade was limited to the European powers, and the main exports were timber (in the south) and tobacco (in the north). The government had little income, nearly all of it from customs proceeds; at the same time, military expenditure was high due to the wars between Haitians and Dominicans.

The first Dominican Constitution came into force on November 6, 1844, declaring the government as "mainly civil, republican, popular, representative, elected and responsible". Pursuant to Art. 210, all these

conditions were abrogated, and full extraordinary powers were given to Pedro Santana, first President of the Republic. In conformity with the Constitution, the State comprised three branches: legislative, executive, and judicial. Public administration was composed of four ministries or state secretariats: Justice and Public Instruction; Interior and Police; Commerce and Finance; and War and Navy.

The first independence period ended with the annexation to Spain under a treaty made public on March 18, 1861. This event, instigated by Santana and the ruling class, reflected their lack of nationalism and their fear of losing power. Patriotic resistance quickly broke out, leading to a widespread popular movement that grew stronger until the Republic was restored and the Spaniards were expelled in August 1865, putting an end to the second colonisation by Spain.

Creation of the education system

Public Instruction Law 33, of May 12, 1845, related to primary education. A further Law of the same year established public education at the primary and higher learning levels, as well as their programmes of study and their distribution by commune and provincial county towns. This second Law was abrogated in 1847 and the first one reinstated. In 1855, a new education law was adopted. Later on, as a result of reforms under the governments of Pedro Santana and Buenaventura Báez, new education laws and regulations were adopted.

Back to Independence: the 1865- 1916 Period

The Dominican nation resumed its independent life in the midst of a deep economic crisis affecting the country as a whole, as a result of three years of war that took a long time to overcome. The population had reached 300 000 inhabitants, composed mostly of peasants. The cattle-breeders had lost their social influence, and the middle class had grown and become more diverse.

The establishment of order and institutional stability affected education, which was boosted through its reorganisation and regulation, and the opening of other important educational centres both in the public and private sectors. A number of religious institutions as well as a group of foreigners (from Cuba and Puerto Rico) participated at the private level.

Political life was characterised by clashes between *caudillos (*regional political leaders) and the installation of short-lived governments; the last one, under Buenaventura Báez (May 1868 - January 1874), was known for

its dictatorial style, its heavy burden of debts, its attempts to annex the country to the United States of America, its battles against various armed rebellions, its corruption and political persecution. After the fall of the Báez regime, the country went through a period of political instability as a result of its institutional weakness, the strife among traditional groups, and the formation of new political parties, leading eventually to the dictatorship of Ulises Heureaux (1887-1899).

From the 1870s, substantial changes took place in the political arena due to the recovery of the sugar industry under the intervention, among other factors, of Cuban immigrants associated with entrepreneurs of Dominican and other nationalities. Similarly, a number of industries were created; there was an increase in coffee and cocoa exports, along with other services that led to the development of capitalism to a quite significant level.

Meanwhile, the school system was run according to the 1866 Regulation of Public Education cited above, which became later a general law. It remained in force until 1884, when Congress passed the General Study Law in response to the social, political, economic, and cultural transformations introduced by the governments of the *Partido Azul*. In addition, from 1876 onwards, the influence of Eugenio María de Hostos was felt in the national education system, in particular with the creation of the Normal School (1880) which used his secular model of scientific, theoretical and practical teaching, based on psychology. It promoted respect for and freedom of learning, and called for gender equality, leading to a pedagogical revolution. The establishment of the Normal School was followed by the creation (1881) of the *Instituto de Señoritas*, presided over by Salomé Ureña, for training female teachers.

The death of Ulises Heureaux was followed by a period of agitation, which led eventually to the first occupation of the Dominican Republic by the United States on March 4, 1916.

The US occupation (1916-1924)

Once the occupation was proclaimed, military forces carried out the social, economic, and political measures that secured the control, administration, and exploitation of the resources of the Dominican Republic, as well as the implementation of the American model. A large sector of the population began a strong armed movement in the rural eastern and north-eastern areas, staging guerrilla warfare that lasted for more than four years, up to the end of the occupation.

The United States organised the administration of the country, which was, at that time, flourishing despite frequent calls – both on national and

international levels – for an end to the occupation. Those events, and the economic crisis which began in 1920, brought the American presence to an end in 1924, although the United States retained considerable influence on the sovereignty and economy of the country through the new Agreement signed that year.

Education legislation

Pursuant to Executive Act 145, the following laws came into force: the Organic Law on Public Education; the Law on the Management of Public Education; the General Law on Learning; the Law on Higher Learning; and the Law on the Conciliar Seminary.

The Organic Law on Public Education established the following categories: "1) primary education divided into kindergarten, basic and tertiary; 2) secondary education complementing the primary level and preparing for higher learning; 3) the Normal School including the programmes of study required for teaching; 4) vocational education, covering agriculture, commerce, industry, arts, and other trades; 5) special education intended for the mentally disabled, the deaf and mute, and the blind; adult literacy; education programmes intended for children with precarious health, and delinquent individuals, etc.; 6) the university level covering higher education and professional programmes."

The Law on the Management of Public Education created the following entities and categories: the National Education Board, the General Education Superintendence, the Departmental Education Boards, the Education Superintendents, the Communal Education Boards, the Public Education Inspectors, and the Public School Principals, among others. The General Law on Study defined the curricula for the primary cycle, the secondary level, teacher education, vocational and specialised learning, and higher education.

The Law on University Education established a number of colleges and governing bodies, as well as other dispositions. The implementation of those laws defined the organisation and functioning of the education system, setting its administrative and technical structure as well as a rational and innovative curriculum resulting from the efforts of the Dominican Commission to foster national identity and values.

The education system maintained the same structure as during the occupation period, in spite of a few substantial changes in educational programmes, for example in the infrastructure and organisation of rural schools.

This organisational structure remained practically the same up to the 1990s.

During the same period, higher education and vocational education expanded their scope. In higher education, Decree 517-96 set out the goals for this sector (Art. 5) as well as the three corresponding levels: technical tertiary, graduate, and postgraduate (Art. 17), along with their three main functions: teaching, research and extension. Finally, in conformity with Law 139-01, CONES (*Consejo nacional de educación superior*) became the Ministry of Higher Education, Science and Technology; the National System of Higher Education, Science and Technology was established, as well as the "norms regulating its operation and the mechanisms ensuring the quality and relevance of the services provided by the institutions that are part of it" (Art. 1).

The socio-demographic background

This section outlines some aspects related to the Dominican population and is based on the findings of the population censuses conducted between 1920 and 2002, as well as on a number of demographic surveys and related studies highlighting the changes in population size, growth, composition, structure, and geographical distribution. From the era of Trujillo to the year 1966, Dominican population policies remained a factor of incalculable "positive" value, given its impact on birth rates and population growth.

Even after Trujillo's death in 1961, the socio-demographic structure remained unchanged. In fact, it revealed reproduction behaviour whose consequences had been a high rate of fertility and rapid population growth.[1] However, in 1966 new initiatives in family planning, responsible parenting, and mass distribution of contraceptives were undertaken by various international and national agencies, as well as groups of interested individuals.

The size and growth of the population

In absolute terms, the Dominican population is still growing, although at a relatively slow pace since the 1970s. From nearly 895 000 inhabitants in 1920, the population grew to over 8.6 million in 2002. In fact, up to the 1970s, this upwards trend was maintained not only at such high levels (one

[1] Universidad Autónoma de Santo Domingo-UASD: Seminar on Population Problems in Dominican Republic. Basic considerations for a population policy in Dominican Republic. p. 421.

of the highest in the world), but also at a constant annual rate of 3.1%, eventually falling to an annual median growth rate of 1.8% in 2002.

With a territory of some 48 442 km^2, the population density grew from 18 inhabitants per square km to 83 between 1920 and 1970. In 2002 the density was 177/km^2 and today it is estimated at around 189/km^2. The political and administrative structure on which the geographical distribution is based is divided into *regions, provinces, towns, districts* and *sections*. The number of provinces grew from only 12 in 1920 to 27 in 1970, and 31 today, including the former province of Santo Domingo (which is now Greater Santo Domingo), which comprises the *Eastern Province* and the *National District*.

Table 1.1 shows the distribution of the population by sector, pointing to a predominant urban sector where the population increased by more than 10 times from 1950 to 2005, while the rural population only doubled during the same period.

Table 1.1 **Total population by zone. 1950-2005**

Year	Total	Urban		Rural	
	Thousand	Thousand	%	Thousand	%
1950	2 134	508	23.8	1 625	76.2
1960	3 047	922	30.3	2 125	69.7
1970	4 010	1 593	39.7	2 416	60.3
1981	5 648	2 936	52.0	2 712	48.0
1993	7 293	4 094	56.1	3 199	43.9
2002	8 563	5 447	63.6	3 116	36.4
2005	9 033	5 746	63.6	3 587	36.4

Source: ONE, National Population Census. Estimate for 2005 based on 2002 census.

The composition by *age* of a given population is a function of the historic trends in fertility, mortality, and migration. This type of population structure determines the basis for social services to be provided, such as health, housing, education, and labour. The following table shows characteristics and trends of the age structure of the Dominican population between 1935 and 2002.

Table 1.2 **Structure by large age groups (%), 1935-2002**

Census year	Age Group			Ratio adults/population under 20 years (%)
	Under 20 (%)	20-64 year (%)	65 and over (%)	
1935	56.7	40.5	2.8	76
1950	55.1	42.0	2.9	81
1960	56.7	40.3	3.0	76
1970	58.7	38.2	3.1	70
1981	53.2	43.2	3.6	88
1993	46.6	48.8	4.5	114
2002	43.7	50.7	5.6	129

Source: Department of Statistics SEESCyT.

Although the Dominican population comprises mostly young people, as can be seen from the high percentage of youngsters under 20 years of age, the proportion of active adults aged 20-64 years and of elderly people (65 and over) kept increasing throughout that period.

The population and the job market

The working-age population during the five-year period from 1996-2000 grew at an average rate of 2.3% yearly, from 5.8 million inhabitants in 1996 to 7.3 million in 2006, of which 72.6% were urban dwellers. From 2001 to 2004, the annual average growth was at 2.2%, reaching 7.0 million in 2004, of which 72.1% were living in urban areas. Urban growth reflects significant "urban drift" from rural areas to the cities.

The total participation rate of the working-age population accounted for 53.6% on average during the 1996-2000 period. Over the period 2001-2004, the median rate was 55.1%, and showed a 1.6% increase during the years 2003 and 2004, as the economically active population grew compared to the working-age population – from 54.7% in 2003 to 56.3% in 2004. This slight increase can be attributed to the demand of the unemployed trying to find a first job on the market, accounting for an increase of 39.7% between October 2003 and 2004.

As to the economically active population, it can be seen that the highest growth rate (6.9%) was registered over the 1997-1998 period. Over the last five years (1996-2000) of the 1990s, this part of the population grew at a rate of 3.1%, and of 2.5% between 2001 and 2004, as a result of the low rate (below 1%) registered during the years 2001 and 2003. This decrease

resulted from an economic decline, in which several businesses were shut down and large numbers of workers laid off.

The unemployed population grew erratically over the period 1996-2004, with its lowest level (13.8%) in 1999, and its highest in 2004 (18.4%). This increase in unemployment was a result of a severe economic recession, due to the bankruptcy of three important commercial banks in 2002 and bad monetary policies leading to a deterioration of labour indicators.

It is worth mentioning that from 2003-2004 there had been an increase of 90 496 unemployed, out of which nearly 30 000 lost their jobs as a result of a policy of the administration aimed at curtailing its payroll, according to data released by the Central Bank. In comparing the growth rates of GDP with those of unemployment, it can be observed that "the higher the former, the lower the latter" – and vice versa. In 2000, the growth rate of GDP was 8.1% and that of unemployment 13.9%; however, in 2004, GDP grew 2.0%, while unemployment reached 18.4%.

The figures from the survey carried out by the Central Bank on employment show that the 10-19 year-olds are the group most affected by unemployment. In 2000, 24.9% of that age group were unemployed, with a steady increase over the years reaching 38.6% in 2004, which reflects an increase of 9.2% over the 2000-2004 period. Among that same age cohort, unemployment in the last two years researched (2003-2004) grew to 26.6%, amounting to an additional 85 777 unemployed in 2004 *vs.* 2003.

The second most affected group is 20-39 year olds, at an unemployment rate of 18.5% on average for the period studied. The highest rates are found during the years 2003 and 2004, at a time when the Dominican economy was deteriorating significantly.

The highest proportion of employed workers on a national level during the 2000-2004 period were men (at a 66.7% simple average), with women accounting for the remaining 33.3%; 72.1% were working in the urban sector, and the remaining 27.9% in the rural areas, indicating that men and urban dwellers are more likely to find employment.

The occupation rate (as an indicator of the ratio of the economically active population (EAP) to the working age population (WAP)) accounted for 45.6%, as a simple average, during the 1996-2000 period, the lowest rate being at 43.9% in 1996. Over the 2001-2004 period, the economically active population registered a 0.3% growth compared to the previous period, reaching 45.9%.

The economically active population in the Dominican Republic is mostly composed of unqualified workers in the services and factory sectors, as well as artisans. An analysis of the employment structure by gender

shows that during the 2000-2004 period 83.9% on average of the total of males employed were factory workers and artisans (20.7%), non-qualified workers (19.1%), qualified agricultural workers and farmers (14.9%), machine operators (14.8%), and service providers (14.4%).

As to female workers, on average 64.6% of the total of employed persons over the same period were in the services sector (27.9%), non-qualified workers (23.1%), or office clerks (13.6%). The services group includes females working as sales personnel, beauticians, waitresses, domestic personnel, etc.

When comparing male with female workers, the number of men working as managers and administrators decreased 0.2% from 3.0% in 2000 to 2.8% in 2004, in contrast to women, who showed a 0.2% increase from 2.6% in 2000 to 2.8% in 2004. As to professional and intellectual workers, women in this group overshadowed their male counterparts. In the year 2000, 4.6% of the latter were working as professionals, reaching 4.7% in 2004 and accounting for an increase of 0.1%. In 2000 the number of women professionals represented 8.6%, reaching 9.9% in 2004, which is a 1.3% increase compared to the year 2000.

The enterprises that generate the most jobs for women are those offering other types of services (21.8%), the retail and wholesale trade (21.1%), and manufacturing (15.3%) as well as agriculture and cattle-breeding (15.0%). Most job opportunities are found in the small-business and personal services sectors, which typically have the lowest productivity and wage levels.

During the period 2000-2004, 69.5% of all male workers were in agriculture and cattle-breeding (21.5%), in the wholesale and retail trade (20.9%), in manufacture (15.3%), and "other services" (11.8%). As to women, 78.6% of the total of employed were to be found in "other services" (41.8%), the wholesale and retail trade (21.4%), and manufacture (15.4%). The percentage of women working in "other services" increased from 39% in 2000 to 44.3% in 2004.

In occupational terms, during 2000-2003 the highest percentage was working in the private sector (43.1%), self-employment (39.6%), and in public administration (11.8%). The number of self-employed has been relatively stable, increasing from 38.6% in 2000 to 40% over the following three years, before falling to 38.0% in 2004.

The education level of the labour force

More than 70% of the Dominican labour force has completed the primary and secondary levels of education, higher education ranking last. A substantial proportion of the labour force (8%) has no schooling whatever.

For the period 2000-2004, the majority of workers completed primary education, 51.8% of men and 38.2% of women (simple average). Unsurprisingly, the highest levels of unemployment are to be found among both males and females with primary schooling only, standing at 46.1% and 42.5% respectively. A comparison by gender reveals that the number of educated females is higher than that of males, both at secondary and tertiary levels.

General evaluation of the Dominican economy

During the early 1990s, the Dominican economy had to cope with significant macroeconomic imbalances (resulting from a number of external and internal factors that led to a large fiscal deficit), as well as inflationary pressure caused by the devaluation of the currency, high interest rates, the flight of capital, and high levels of deficit in the balance of payments.

To tackle these problems, the government carried out a series of policy and economic reforms, covering key areas: foreign trade, fiscal and financial systems, and labour.

The first results of these reforms were reflected in a decrease in the annual inflation rate from 47.1% on average in 1991 to 4.26% in 1992. The 5.5% decrease in GDP in 1990 remained almost flat, at 0.9% in 1991, reaching 8% in 1992.

During the years 1993 to 1995, economic growth was maintained at a cumulative annual rate of 4.5%, inflation was kept below a single digit, and the third economic stabilisation programme was implemented, accompanied with restrictive measures aimed to reduce, in the short run, the volume of aggregated demand in order to avoid inflationary pressure. In 1995, the country became a member of the World Trade Organisation, and a new fiscal code was adopted with a view to expand the basis of taxation and to modernise the tax system. The economic performance of the Dominican Republic during the period 1996-2000 was one of the best in the Latin American region; throughout the 1990s, the Dominican economy grew at an average rate of 6.0% per annum.

During the first four years of the new millennium (2000-2004), economic growth slowed down, but still registered an annual cumulative increase in GDP of 2%. During the years 2005 and 2006 the economic situation improved with increases of 9.3% and 10.3% respectively as a result of economic policies applied by the government and increased confidence of the population in the economy.

Table 1.3 **Gross Domestic Product by sector, percentage based on 1990 prices**

Sectors/Years	1990	1995	1997	1999	2001	2003	2005	% [3]
Total	-5.5	4.7	8.2	8.1	3.6	-1.9	9.3	100.0
Agriculture [1]	-8.6	5.2	3.3	8.8	8.1	-2.6	7.3	12.1
Industry [2]	-4.3	1.3	7.5	6.0	-3.1	-3.1	5.4	16.9
Construction	-6.9	5.8	17.1	17.7	0.5	-8.6	6.2	11.0
Commerce	-13.6	7.8	10.0	8.4	1.0	-13.7	19.9	12.3
Hotels and Restaurants.	-13.7	13.1	17.4	9.1	-2.4	13.3	7.4	6.1
Transport	-11.8	6.2	7.5	6.4	-0.9	-8.2	10.2	6.5
Communications	13.7	19.4	19.3	17.9	35.8	15.4	26.8	6.4
Government	2.6	0.4	3.1	3.1	8.8	4.2	0.2	8.1
Remaining	-0.8	2.4	4.1	3.7	2.8	-0.7	2.7	20.6

Source: Central Bank of the Dominican Republic.

Notes:

(1) Includes: Agriculture, Cattle raising, Forestry and Fishing

(2) Includes: Sugar industry, other industries and free zones

(3) Over period 1990-2005

Sectors of major economic incidence

The trend in the Dominican economy over the last fifteen years (1990-2005) was basically set by the sectors that have a strong impact on the composition of the Gross Domestic Product (GDP), which explains the macroeconomic aggregate trend. The sectors that contributed the most were the following: manufacturing, with a weighted average of 18.5%, agriculture (13.3%), trade (13.2%), construction (11.5%), and government (8.9%), altogether accounting for 65.4% of GDP.

The growth in the governmental sector during the 1990s was moderate, with an average rate of 2.9%; however, during the 2000-2004 period, the annual growth rate accounted for 4.9%, as a result of heavy public spending.

The "other services" sectors such as transportation, hotels, bars and restaurants (tourism), as well as communication, with a weighted average of 19% of GDP, registered an increase in annual accumulative rates of 6.9%, 12.3% and 17.3% respectively during the 1990s; with tourism and communications showing the most dynamism. This trend was drastically reversed during the 2000-2004 period, when transport fell 1.2% and

especially tourism 3.9% as a result of the September 11, 2001 attacks. Communication, however, registered a sustained growth rate of 20.6% on average, boosted by high levels of private investments. During 2005 transport and tourism regained their dynamism and grew at a rate of 7.4% and 10.2% respectively, which changed the tendency shown in 2003.

Per capita income

GDP per capita during the 1990s increased to a cumulative rate of 3.9% per year, attributable in part to the economic policies during that period. When compared with that of other countries in the region with similar socio-economic characteristics, during the 1990-2004 period GDP per capita in the Dominican Republic (in USD) reached 7.0%, well above those of Bolivia, Ecuador, Paraguay, and Peru, which registered annual average growth rates of 2.4%, 5.4%, 0.55%, and 4.4%, respectively, during the base period.

Income distribution in the Dominican Republic

A study of growth and income inequality points to a decrease in the latter between the mid-1970s and 1980s in the Dominican Republic, an increase at the end of the 1990s, and a moderate fall again in the mid-1990s, though at a much lower level than in the 1970s.[2]

According to the World Bank Report on Economic Growth, Poverty and Inequality, the proportion of Dominicans earning sufficient incomes to satisfy their basic needs increased by 50%, while the number of poor people showed a two-fold increase over the last 7 years. Thus, in 2004, depending on the poverty line applied, from 34% to 42% of the population were poor, of which between 12 and 15% were living in absolute poverty (earning incomes too insignificant to cover the minimum calorie intake).

This increase was due largely to the severe economic and financial crisis of 2002-2004, during which nearly 15% of the Dominican population (1.3 to 1.5 million) hit the poverty line, while nearly 6-7% (from 500 000 to 700 000) were living in extreme poverty. Poverty extended throughout the country, with the highest number of poverty-stricken households living in urban areas.

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[2] Dollar & Kray (2002) report the following values for the Gini coefficient for the Dominican Republic: 45 (1976), 43.3 (1984), 50.5 (1989), 49.0 (1992), 48.7 (1996). For calculation purposes, the tendencies are interpolated for the years between the periods studied (including the period 1976-84 to 1971-75). The estimated Gini coefficients for the 1997-2004 period have been applied.

Although the most recent economic and financial crisis had a strong impact on poverty levels, an analysis of poverty trends prior to the crisis indicates that the economic growth registered in the 1990s did not translate into a significant reduction in poverty. The incidence of moderate and extreme poverty hardly decreased (1%) during the 1997-2002 growth period. This was reflected in a moderate increase in urban incomes, given that rural poverty increased 3 points during that period, while income inequalities remained flat during the last 7 years, accounting for a Gini deficit of nearly 0.520, the average for Latin America and the Caribbean (LAC), the region with the greatest inequalities. This amounts to a moderate increase in inequality (2 Gini points) and a marked increase in income inequality in rural areas.

Chapter 2. Organisation of Education

This chapter presents a synopsis of the structure and organisation of the State on the national, provincial, and local levels, in particular with regard to the education system. There are details of the various executive, legislative and judicial branches of the Dominican Republic and the governance structure in the provinces and municipalities. In the section on the education system, there is an outline of the executive branches which are responsible for education. The levels within education are then discussed, with details of the institutions involved at each level and the qualifications awarded. The final section deals with the role played by the National Institute of Professional and Technical Training (INFOTEP).

Pursuant to the 37th Constitutional reform of 1994, the Dominican public sector is organised around three powers: executive, legislative and judicial; and around the *Cámara de Cuentas* (Office of the Comptroller) and the *Junta Central Electoral* (Central Election Board).

- The Executive Branch comprises, besides the President who is the highest authority, the following: the Government Council, composed of the President of the Republic, the Cabinet Ministries, the Office of the Public Prosecutor and the Office of Legal Counsel.
- The Legislative Power is vested in the National Congress, composed of two chambers: a Senate and a House of Representatives.
- The Judicial Power is exercised by the Supreme Court and the judicial courts established by the Constitution and its laws.
- The Office of the Comptroller of the Dominican Republic is represented by a higher administrative court, the *Tribunal Superior Administrativo*, in charge of the protection of Dominican state property through the independent and efficient supervision of the management and administration of public resources, and accountability.

- The Central Election Board is composed of two chambers, one administrative and one contentious. Its mission is to ensure that all electoral dispositions are enforced.

In the provinces and municipalities, the organisational structure is similar to that of the rest of the nation, but is presided over by the following authorities:

- The Provincial Governor, who represents the Executive Power in the capital town of the province, while in the other towns the Executive is represented by the Mayor.
- The Senator of the province and the Representatives from the municipalities.
- The Courts of First Instance in the provinces and the Justice of the Peace in the towns, representing the Judicial Branch.
- The Municipal Election Boards representing the Central Election Board.

The Education system

The Dominican education system is composed of the following:

- The Ministry of Education (Secretaría de Estado de Educación) (General Education Law 66-97).
- The Ministry of Higher Education, Science and Technology (Secretaría de Estado de Educación Superior, Ciencia y Tecnología) (Law 139-01).
- The National Institute of Professional and Technical Training (Instituto Nacional de Formación Técnico Profesional) (Law 116-80).

The State Secretariat for Education (SEE)

The State Secretariat for Education is part of the executive branch, and is in charge of the education system, its management and orientation. It also implements all relevant dispositions embodied in the Constitution, the General Education Law, and all other laws and regulations related to pre-primary, primary and secondary education.

Education levels

The Dominican education system comprises pre-primary, primary, secondary and university levels. The latter is under the supervision of The Ministry of Higher Education, Science and Technology (SEESCyT); the other levels are organised in **cycles,** divided further into grades, each corresponding to one year of schooling.

a) Pre-primary level

This level covers children under 6 years of age. It is not compulsory. The Dominican State is responsible for the last year of pre-primary education only, which is compulsory and free; efforts are being made to expand participation, with the support of the private sector. Pre-primary education is organised in three cycles: the first intended for children 0-2 years old, the second for children aged 2 to 4, and the third for children aged 4-6.

b) Primary level

This level lasts eight years, and is intended for the 6-14 year-old population. It is compulsory and universal, and therefore the State has the constitutional responsibility to ensure that all children have access to eight years of primary education. There are two cycles: the first covers grades 1 to 4 and is intended for 6-10 year-old pupils, while the second covers grades 5 to 8 and is intended for 10-14 year-olds. Within these cycles, the learning process is organised by grade, each grade lasting one year and providing 10 months of teaching.

c) Secondary level

The secondary level of learning lasts four years and is intended for the 14-18 age cohort. Access to this level requires the completion of the primary education. According to the General Education Law, secondary education is free but not compulsory. It is designed to deliver the tools to strengthen and deepen the knowledge, values, attitudes and vocational interests acquired in primary education, and provides access to higher learning as well as to further training for the labour market.

Secondary education offers general education courses to ensure that all students have access to comprehensive education. There are two cycles, each lasting two years. The first cycle offers general and compulsory education, while the second has three strands: general, vocational/technical, and arts, each offering different options within a flexible curriculum that

facilitates transition from one mode to another. Arts and vocational/technical education provide a range of options.

Vocational/technical education, as its name indicates, prepares students for entry into qualified professions at the secondary level, or for social or productive activities. It focuses on three main sectors of the Dominican economy: industry, agriculture, and services.

Arts education seeks to further develop the sensibility and creative skills of the students. It offers the opportunity to incorporate the knowledge and practical skills acquired into a variety of arts-related professions and occupations. There are four major orientations: music, visual arts, performing arts and applied arts.

d) Education subsystems: adult and special needs education

Along with the education levels described above, the Dominican education system has two subsystems: special needs, and adult education. Special needs education is designed to provide children with special needs or physical disabilities with the necessary level of specialisation.

The subsystem of adult education offers a comprehensive and continuing programme aimed at delivering education to adults who, for a number of reasons, were not able to attend regular systematic schooling. It is also intended for those who have both primary and secondary education, but who wish to acquire further training out of a desire for self-fulfilment as well as a means to enter the labour market.

Adult education covers literacy and primary programmes as well as secondary education over a four-year period, along with professional training. Primary adult education lasts five years and is divided into three cycles: the first two lasting two years each, and the third cycle lasting one year. In addition, vocational/work-related education is part of the subsystem of adult learning, and provides educational opportunities to those interested in developing the skills leading to the labour market.

Diplomas awarded by level

Upon completing the primary level (Grade 8), students take the national examinations as a prerequisite for access to secondary education.

To graduate from secondary school, students must meet the following requirements: obtain at least a passing grade (70) on the national exams, in all subjects or classes within the curriculum corresponding to the level, and comply with the *Servicio Social Estudiantil* or community service.

At the end of the third cycle of *adult* education, students completing adult primary education must pass the national exams in order to earn the certificate of completion of primary education, which then gives access to secondary education. Students who obtain a passing grade in national exams at the end of general secondary have access to higher education.

The chart in Annex A illustrates the architecture of the Dominican education system in conformity with Law 66-97 and Ordinance 1-95.

The State Secretariat for Higher Education, Science and Technology (SEESCyT)

The State Secretariat

Higher education in Dominican Republic is conceived as post-secondary education, providing technical superior, graduate or postgraduate degrees. The degrees awarded are technical, graduate or postgraduate. The National System of Higher Education, Science and Technology was established through Law 139-01. It consists of:

- Institutions qualified to deliver higher learning.
- Institutions generating and incorporating knowledge and technology.
- Institutions able to transfer knowledge and technology.
- Institutions involved in the promotion and financing of education.
- Institutions performing regulation, control and supervision activities.

SEESCyT is the entity in charge of devising public policies related to higher education, science and technology, as well as planning, promoting, evaluating, monitoring and implementing such policies.

Law 139-01, which establishes the structure of the HE system, comprises three types of institutions: technical institutions entitled to award technological degrees; specialised institutes awarding graduate and postgraduate diplomas in specialised fields; and the universities qualified to deliver the corresponding titles in technical, graduate and postgraduate fields. There are also a number of scientific and technological research institutes for biotechnology, industrial innovations, and agricultural research, as well as a science academy *(Instituto de Innovación en*

Biotecnología e Industria, Instituto Dominicano de Investigaciones Agropecuarias y la Academia de Ciencias de la República Dominicana).

In conformity with Art. 30 of Law 139-01, the national system of higher education, science and technology also includes a number of institutions seeking primarily to promote and finance this level of education, such as institutions involved in the promotion and financing of technological and scientific research, technological innovations and studies, and financing of human resources.

The system is managed at the national level, given that there are no provincial or municipal bodies responsible for higher education. The highest decision-making body is the *Consejo Nacional de Educación Superior, Ciencia y Tecnología, CONESCyT*, a national board in which all the institutions of the system are represented. This board is led by the State Secretary for Higher Education, Science and Technology through a number of sub-commissions established by the Secretary, such as the National Sub-commission for Higher Education and the Science and Technology National Sub-commission.

Higher education institutions

Two types of institutions – public and private – make up the Dominican Higher Education system. Among the public entities are the state university (*Universidad Autónoma de Santo Domingo* — UASD) and four public institutions in specialised areas (*El Instituto Superior de Formación de Maestros Salomé Ureña, Fuerzas Armadas, Instituto Tecnológico de las Américas y el Instituto Politécnico Loyola)*. The remaining 39 institutions are run by the private sector. Higher education institutions are autonomous in terms of their governance structure provided they have undergone two evaluations every 5 years (self evaluation and external evaluation).

The higher education system allows for the exchange between institutions of recognised courses completed in other accredited institutions of higher education, according to the system of equivalence based on the contents (see art.10 (j) of *Reglamento de las Institutiones de Educación Superior)*.[3]

Based on existing norms, the higher education institutions are not allowed to validate more than 50% of the total credits of the study plan. Furthermore, courses validated are those taken during the last five years. Validation of courses taken in foreign institutions is based on these criteria, and must be translated into Spanish. Students' records must include all

[3] Law on higher education institutions, 24 May 2004, p. 16.

courses validated as well as documentation that clearly shows the validation procedure.

Regarding the homologation of diplomas, all national diplomas awarded at the same level of education should be equally valid, regardless of the awarding institutions. However since 1966, the diploma delivered by the state university (UASD) constitutes the paradigm in this area, a guarantee in terms of homogeneity. In conformity with Education Law 139-01, Article 33, the decision whether or not to validate a higher education diploma obtained abroad is the prerogative of the Dominican administration, through its public university (UASD). Prior to this regulation, only the state university (UASD), the PUCMM, UNPHU and UCE were allowed to validate such diplomas.

Academic requirements or duration of study programmes

The Dominican HE system establishes the minimum duration of the study programmes or courses by levels of learning, as follows:

- Technical studies: two years with a minimum of 85 credits.
- Graduate studies: a minimum of 140 credits, except: (see Art. 7 of the higher education institutions' Regulations).
  - Architecture, Veterinary, Law, Dentistry, Pharmacy and Engineering: a minimum of 200 credits and 4 years duration.
  - Medicine: 5 years plus one year internship.

At the post-graduate level:

- Specialisation: one year and a minimum of 20 credits.
- Masters' degrees: a minimum of 40 credits and two years' duration.
- PhD (not yet implemented by Dominican institutions): a minimum of 60 credits and three years' duration.

A survey conducted between 1999 and 2001 showed that, in reality, private institutions usually extend the formal study period by half a year, while the State university (UASD) tends to extend the study period by one and a half years (Cf. *Informe sobre la Educacion Superior en Republica Dominicana*, Santo Domingo, 2003).

The National Institute of Professional and Technical Training (INFOTEP)

The National Institute of Professional and Technical Training (INFOTEP) is the leading entity of the National System of Professional Training. This is an autonomous, self-funding entity that offers non-profit services. It was created under Law No. 116 on 16 January, 1980, and is regulated by Law No. 1894, of 11 August of the same year. The main authority is the Board of Directors, a tripartite structure composed of the government, business and employees. The administration responsibilities are under a general director. INFOTEP has the task of training human resources for national production as well as professional and technical training and entrepreneurial advice. Additional information about INFOTEP can be found in Chapter 3 of this report.

Professional training offer

In the Dominican Republic, professional training is offered by a group of private and public training entities of which INFOTEP and the Operative Systems Centres (COS) are a part. About 30% of all training requested in the country is attended through its own Centres, movable Workshops and the network of Operative Systems Centres (COS) with which INFOTEP has a strategic alliance to take care of the training requests.

Table 2.1 shows the number of COS and the programmes for regional management.

Table 2.1 **Distribution of Operative Centres System, by Regional Management 2001-2005**

Regional Management	Number of Centres				
	2001	2002	2003	2004	2005
South	17	20	21	17	19
Central	87	90	90	73	80
North	32	37	38	31	31
East	18	22	22	24	24
Total	154	169	171	145	154

Source: INFOTEP, Department of Evaluation and Accreditation, Division of Regulations, Supervision and Centre Assistance, 2005.

Selected programmes and services offered by INFOTEP

- Professional training: dual training, skills training/complementation, continuous training in centres, technical education training.
- Training and advice for the promotion of small enterprises; training for SME managers.
- Advice, assistance and training for teachers of information technology and education methodology; advice, assistance and training for curriculum design (traditional approach, and occupation-specific).
- Validation and professional certification.
- Authorisation and technical assistance to centres.
- Calibration and/or verification of equipment and instruments of measurement.

Certifications awarded by INFOTEP

INFOTEP awards "Technical", "Technical Teacher" and "Teacher of Professional Training" diplomas. Four types of certificates can also be obtained:

- Professional Aptitude Certificate (CAP): for those who have completed training in a trade.
- Professional Aptitude Teaching Certificate (CAPD): for those who have completed training as pedagogic trainers in INFOTEP programmes.
- Approval Certificate (CA): for those who have completed technical-professional training not included in training programmes with "partial leaving".[4]
- Certification of Participation (CP): for those who have participated in training and information activities which do not require exams or assessment.

[4] "Partial leaving" means the student has acquired the basic skills necessary to enter the labour market, but has not completed the course.

Role of professional training in public policy

The role of INFOTEP and the network of Operative System Centres (COS) is to promote and develop a highly competitive modern economy, through the training of human resources needed for the process of globalisation and to meet the different agreements which lead countries to promote and stimulate the fight against poverty.

INFOTEP has the responsibility under Law 116, 1980 and its Bylaws (1984) to be a consulting and advisory entity for the professional and technical training of human resources as needed in the country, paying attention to modernisation, especially by using the new information and communications technologies (NTICs).

INFOTEP contributions to the training and labour modernisation programme

By promoting social development through training human resources, INFOTEP contributes also to the promotion of economic development. Therefore, community programmes, business programmes and the COS centres throughout the country are most important. In terms of job creation, there is a training and labour modernisation programme called "Youth and Employment", developed by the Ministry of Labour (SET) and INFOTEP, financed by the Inter American Development Bank (IBD)

This new programme started in November 2003. In 2004, 14 539 young men and women were trained in the following areas: graphic arts, electric installation and maintenance, electronic maintenance, refrigeration and air conditioning maintenance, sales, bar services and restaurant, bakery and bread shops, cooking, secretarial services, accounting, beauty parlours, computing, and similar occupations.

Chapter 3. Advances and Drawbacks in the Dominican Education System

Education is, and should be, a key objective for all states, in terms of both national development and a sound social and organisational structure. However, to reach this goal, not only is a strong political will called for at the executive governmental level, but society as a whole must also be ready to participate in its culture and spirit. Management must keep track of outcomes through continual follow-up, evaluation and monitoring. Chapter 3 outlines the advances and drawbacks in today's Dominican education system at its different levels: pre-primary, primary, secondary, tertiary and vocational. It also underlines the main actions undertaken to improve the quality of education. There are discussions of access to education, internal efficiency of the system, teaching staff, physical infrastructure and resources at the different levels and a note on implementation of education policy.

Advances and Drawbacks in the Education System under the Supervision of the State Secretariat for Education (SEE)

Access

There has been an unexpected increase in enrolment rates among students in the Dominican Republic, both male and female. According to Table 3.1, enrolment rates stand at 91.7% nationwide – males 90.9% and females 92.6%. These proportions are most significant in the light of the data released by the 2003 National Census establishing no major gender-related differences, inasmuch as these figures are a true reflection of Dominican children and adolescents of both sexes.

Table 3.1 **Enrolment rates by gender and age**

Classification by age	Nationwide	Male	Female
Classification 1: Age group 6-to-13-year-olds	91.7%	90.9%	92.6%
Classification 2: Age group 14-to-17-year-olds	36.5%	31.5%	41.7%

Source: INFOTEP, 2005.

Álvarez (2004)[5] describes "the substantial increase" in the access to education over the last ten years in the following terms:

> *"Between 1992 and 2002, the gross enrolment rate for the first cycle, that is, the ratio of enrolment in the first four grades of primary education to the 6-to-9-year-old population, increased from 91% to 138%, which definitely indicates an increase in educational coverage. As to the second cycle (grades 5-8), in the 10-13 year cohort, the gross enrolment rate went from 42% in 1992 to 90% in 2002".*

The same report (Álvarez, 2004) indicates that the increase in enrolment is also reflected in the attendance rate, one of the highest in Latin America. The author says that "in the 15 and 16-year-old group, the Dominican Republic, along with Brazil and Peru, registers the highest percentage of school attendance".

According to Alvarez, access to education, however, is more limited in the rural areas, in particular at the primary level (grade 5 onwards) as a result of instructional deficiencies: smaller schools, mostly multi-grade, covering in general grades 1-4 only (44% of all schools).

5 Álvarez, Carola. (2004). La Educación en la República Dominicana. Logros y desafíos pendientes. Serie de Estudios Económicos y Sectoriales. Inter-American Development Bank. Washington, D.C.

Table 3.2 **Students and percentages by year and sector 1999/2000 - 2004/2005**

Sector	YEARS												
	1999-00		2000-01		2001-02		2002-03[1]		2003-04[1]		2004-05[1]		*Average*
	Enrolment	%	Enrolment	%	Enrolment	%	Enrolment	%	*Enrolment*	%	Enrolment	%	
Public	1 831 229	78.3	1 922 672	79.7	2 023 261	81.9	1 937 793	79.3	1 904 716	79.4	1 891 413	78.3	79.5
Private	461 936	19.8	449 143	18.6	410 556	16.6	459 171	18.8	447 560	18.7	475 623	19.7	18.7
Semi-official	44 695	1.9	41 112	1.7	37 774	1.5	47 650	1.9	46 714	1.9	49 413	2.0	1.8
Total	2 337 860	100.0	2 412 927	100.0	2 471 591	100	2 444 614	100	2 398 990	100	2 416 449	100	100.0

Source: SEE, Statistics department, 2006.

Note:

[1] Including special needs, work-related and basic technical education.

Based on enrolment rates by sector (public, private and semi-official), it is possible to assess the share of public enrolment in the overall system. The general averages for the years researched (1999-2005) stood at 79.5% for the public sector; 18.7% for the private sector, and 1.8% for the semi-official sector.[6]

Progression and survival: internal efficiency of the system

Although the Dominican Republic has been making progress toward expanding educational coverage, the issue of survival remains a key challenge.

According to the UNDP Report on Human Development (2005), although average national enrolment remains low, educational opportunities have systematically improved. The level of schooling for the group born in 1930 is estimated to be only 3.2 years, reaching 7 years for those born in 1950 and 9.1 years for the group born in 1970.

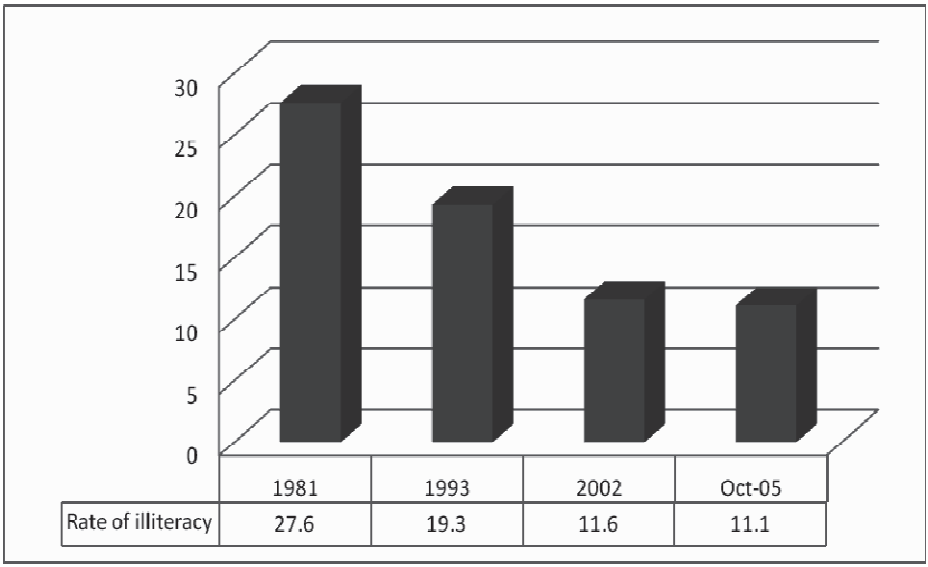
As to the 6-18 year-old group, 91% are currently in school. The Dominican Republic ranks second in Latin America in terms of instructional coverage for the 14-18 year-old group. Regarding the population aged 6-18 years in the rural areas, the country registers the highest number of children in school in Latin America, accounting for 88.7% of the population enrolled. At 18 years of age, Dominican students have spent on average 11.8 years in school. However, in terms of efficiency, repetition and dropout rates remain high throughout the system, which in turn leads to low rates of survival.

6 This refers to educational institutions financed by the State, but run by religious entities.

After 11.8 years of school *attendance,* a student would have had only 8.3 years of actual schooling.

On the other hand, the Enhogar Survey carried out by the National Office of Statistics in 2005 reported a 91.3% enrolment rate among children aged 6 to 13, boys and girls alike, at the primary level, while 63.5% of the 15-19 age group completed the primary level or beyond, and 95.9% of the 15-24 population are literate.

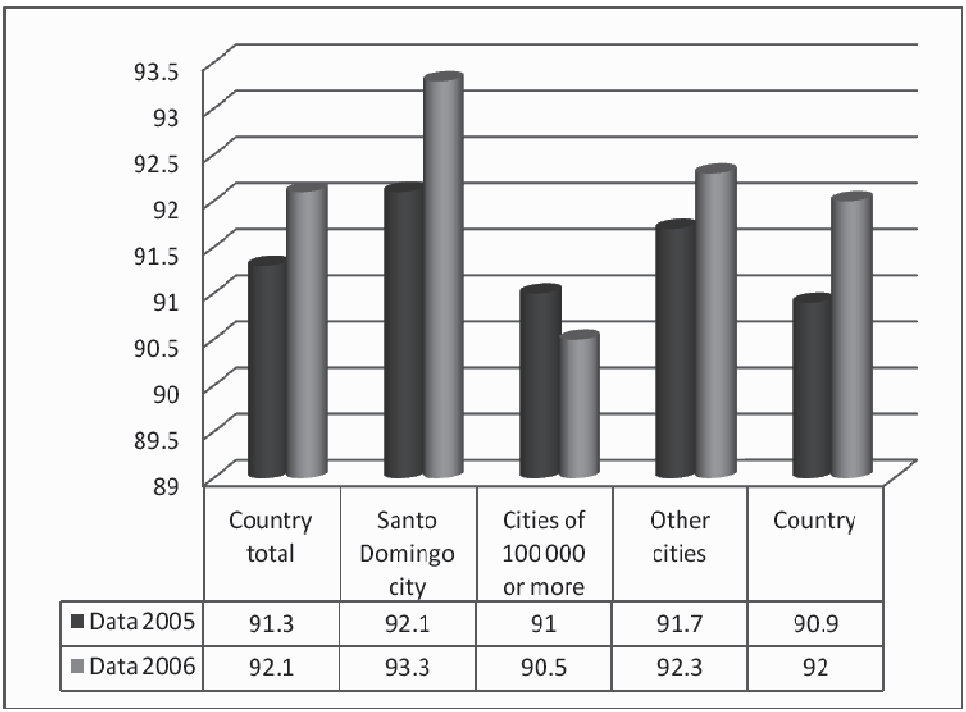
Figure 3.1 **Illiteracy among 15 year olds and over**



Source: SEE, Statistics department 2005.

As a result of late entrance, repetition, and temporary drop out, over-age remains very high, representing 20.1% at the primary level in 2004, and 38% in 2005 in secondary education; the percentage was 51.2% in 2002. According to a cohort analysis, of 100 children entering formal education, only 75 complete grade 4; 63 complete grade 6 and only 52 complete the 8-year primary level. This situation is even worse in rural areas where most schools stop at grade 5.

Figure 3.2 **Enrolment rate among children aged 6 to 13 at primary level and beyond**



	Country total	Santo Domingo city	Cities of 100 000 or more	Other cities	Country
Data 2005	91.3	92.1	91	91.7	90.9
Data 2006	92.1	93.3	90.5	92.3	92

Source: SEE, Statistics department 2005.

According to Urquiola & Calderón (2005), the Dominican Republic ranks third among the countries of the region in terms of years of schooling completed on average by 18-year olds (11.8), lagging behind Argentina and Chile (12.1). However, if one considers the average years of schooling at 18 years old, the average falls to 8.3 and the ranking to 13, ahead of El Salvador, Costa Rica, Brazil, Belize, Honduras, Nicaragua, Haiti and Guatemala. The average years of schooling are only 1.9 at 8 years old and 5.3 at the age of 13. Such percentages are due, among other factors, to late entry and repetition.

Teaching staff and human resources

Some of the data reported here concerning the teaching staff are provided by the Department of Statistics of the Ministry of Education and the National Institute for Teacher Training (INAFOCAM), through a study carried out by INAFOCAM.

Regarding the 2005-2006 school year, broken down by sector, the public sector accounted for the highest proportion (73.05%) of the teaching staff; while the private sector represented 24.73%. nationwide. The semi-official sector, although administered mostly by religious entities, is financed with public funds; thus it may be considered public. When it comes to Adult Education, the size of the teaching staff (45.3%) is worth mentioning. In Adult Education the highest percentage of teachers (98.1%) belongs to the public sector. Relatively high proportions are found in the private sector – in pre-primary, primary, general secondary and vocational/technical education (49.0%, 35.5% and 30.6%, respectively).

During the 2004-2005 school year, a total of 97 474 posts were filled by the teaching staff of the Ministry of Education (public sector), accounting for a total of 58 261 teachers, which reflects a slight increase when compared to 2002 and 2003, with 92 678 and 92 640.

One aspect to be emphasised is the feminisation of the teaching staff. In general, female teachers accounted for a higher percentage for the four years researched (2002, 2003, 2004 and 2005).

These figures, however, vary depending on education levels. Table 3.3 presents the distribution of the teaching staff for the years considered (2002, 2003 and 2004) by level and gender, with percentages exceeding 90%, 70% and 60% in pre-primary, primary and adult education, respectively. The figures fall to around 50% at the secondary level, while at the same time the feminisation rate in vocational education exceeded 50% for those same years.

The participation of female staff was predominant at the pre-primary level and accounted for more than 96% of the teaching staff in 2002-2003, with an absolute total of 9 264 female teachers.

Another significant aspect of the Dominican teaching force refers to certification or qualification. Most teachers (85.8%) are qualified, although non-qualified teachers account for 14.2%, which may affect quality. At the primary level, 88.3% of the teaching personnel are qualified. The Ministry of Education is, however, making efforts to train its teaching staff, given that 91.6% of all positions in the public sector are held by qualified teachers.

Table 3.3 **Distribution of the teaching staff by gender 2002-2003/2003/2004/2004-2005**

Levels	Total	Male	%	Female	%
Pre-primary					
2002-2003	9 264	287	3.10	8 977	96.90
2003-2004	8 879	338	3.81	8 541	96.19
2004-2005	9 048	329	3.64	8 718	96.36
2005-2006	8 188	455	6.0	7 733	94.00
Primary					
2002-2003	62 846	15 613	24.84	47 233	75.16
2003-2004	62 665	15 440	24.64	47 225	75.36
2004-2005	66 315	15 929	24.02	50 386	75.98
2005-2006	67 670	17 878	26.0	49 792	74.00
General Secondary					
2002-2003	14 802	7 515	50.77	7 287	49.23
2003-2004	15 443	7 586	49.12	7 857	50.88
2004-2005	16 456	7 861	47.77	8 595	52.23
2005-2006 [1]	17 937	8 423	47.00	9 514	53.00
Technical/Vocational					
2002-2003	1 945	941	48.38	1 004	51.62
2003-2004	1 631	796	48.80	835	51.20
2004-2005	1 985	951	47.91	1 034	52.09
Adult /Primary					
2002-2003	3 821	1 372	35.91	2 449	64.09
2003-2004	3 842	1 252	32.59	2 590	67.41
2004-2005	3 670	1 240	33.78	2 430	66.22
2005-2006	4 791	1 673	35.00	3 118	65.00
Special Education					
2005-2006	1 093	381	35.0	712	65.00
Total					
2002-2003	97 474	27 059	27.76	70 415	72.24
2003-2004	92 460	25 412	27.48	67 048	72.52
2004-2005	97 474	26 224	26.90	71 250	73.09
2005-2006	99 679	28 810	29.00	70 869	71.00

Source: SEE, Statistics Department.

Note:

[1] Including Technical/Vocational.

Not surprisingly, for both qualified and non-qualified teachers the highest percentages are female. However, it is important to note that non-

qualified females are overshadowed by their male counterparts in secondary and vocational/technical education (67.3% and 66.6%).

Table 3.4 **Qualified and non-qualified teachers by gender, level and sector, school year 2004-2005**

		Qualified				Non-qualified			
Level/sector		Total	%	M	F	Total	%	M	F
Total	*97 474*	*83 598*	*85.8*	*20 688*	*62 910*	*13 876*	*14.2*	*5 536*	*8 340*
Pre-premary	8 924	6 880	77.1	234	6 646	2 044	22.9	91	1 953
Public	4 282	3 801	88.8	144	3 657	481	11.2	30	451
Private	4 372	2 914	66.7	86	2 828	1 458	33.3	56	1 402
Semi-official	270	165	61.1	4	161	105	38.9	5	100
Primary	65 409	57 736	88.3	12 765	44 971	7 673	11.7	2 943	4 730
Public	50 820	46 558	91.6	10 971	35 587	4 262	8.4	1 885	2 377
Private	13 475	10 352	76.8	1 656	8 696	3 123	23.2	939	2 184
Semi-official	1 114	826	74.1	138	688	288	25.9	119	169
General Secondary	16 231	13 562	83.6	5 957	7 605	2 669	16.4	1 796	873
Public	10 074	8 614	85.5	3 776	4 838	1 460	14.5	1 021	439
Private	5 769	4 655	80.7	2 059	2 596	1 114	19.3	719	395
Semi-official	388	293	75.5	122	171	95	24.5	56	39
Technical/Vocational	1 958	1 434	73.2	589	845	524	26.8	349	175
Public	1 249	919	73.6	364	555	330	26.4	223	107
Private	599	440	73.5	191	249	159	26.5	95	64
Semi-official	110	75	68.2	34	41	35	31.8	31	4
Adult/ Primary	3 620	3 157	87.2	994	2 163	463	12.8	229	234
Public	3 550	3 095	87.2	968	2 127	455	12.8	224	231
Private	65	59	90.8	23	36	6	9.2	4	2
Semi-official	5	3	60.0	3	0	2	40.0	1	1
Special Needs	400	314	78.5	30	284	86	21.5	18	68
Public	169	142	84.0	12	130	27	16.0	7	20
Private	50	29	58.0	3	26	21	42.0	5	16
Semi-official	181	143	79.0	15	128	38	21.0	6	32
Work related	845	467	55.3	93	374	378	44.7	83	295
Public	507	307	60.6	45	262	200	39.4	11	189
Private	222	110	49.5	37	73	112	50.5	52	60
Semi-official	116	50	43.1	11	39	66	56.9	20	46
Vocational (*Técnico Básico*)	87	48	55.2	26	22	39	44.8	27	12
Public	7	5	71.4	2	3	2	28.6	0	2
Private	75	40	53.3	21	19	35	46.7	26	9
Semi-official	5	3	60.0	3	0	2	40.0	1	1

Source: SEE, Statistics Department.

Another noteworthy aspect is the ratio of students to teaching staff. Table 3.5 presents the ratio for the years considered. As can be observed, the average ratio is 24.8, 23.8 and 23.9, respectively.

Table 3.5 **Ratio of students to teaching staff**

Level	Years		
	2002-2003	2003-2004	2004-2005
Pre-primary	20.9	20.7	22.2
Primary	26.3	25.7	24.6
Secondary	28.6	29.3	27.9
Vocational	19.5	19.2	20.4
Adult/Primary	28.9	23.9	24.2
Average	24.8	23.8	23.9

Source: Statistics SEE

A study carried out by the National Institute for Teacher Training (INAFOCAM) showed that the SEE staff is made up mostly of teachers working in the classroom (79.4%), followed by administrative/teaching and technical/teaching personnel (11.4% and 6.4%, respectively).

In terms of their qualifications, these civil servants have either a certificate or a Bachelor's degree (76.2% for both categories). Only 2.2% have a Master's degree, while the number of postgraduate degrees or specialisations is at a low 4.7%. Of all bachelor degrees awarded, the majority (75.44%) are earned by females, as well as the highest proportion of teaching certificates (74.41%), while most of the doctorate degrees (52.73%) are obtained by males.

As to years of service, a relatively high percentage of teachers (61.80%) have been working for 14 years or less; this means they joined the teaching force while the latest education reforms were underway. In terms of duties performed, the teaching staff comprises mostly primary teachers of both sexes (61.1% of males and 74.6% of females), followed, although in smaller proportions, by school principals (14.7% and 7.4%, respectively).

Among technically-trained teaching personnel, the highest percentage (60.7%) graduated from Normal School; 34.4% earned a vocational diploma, while the technological level accounts for 4.1% of the qualifications.

Among the directors included in the INAFOCAM study, the highest proportion hold a Bachelor's degree (44.9%), followed by certificate holders (27.2%). Postgraduate and Master's degrees account for only 12.3%.

Regarding the regional directors or assistant-directors, most of them (58.8%) hold a Master's degree. However, when it comes to district directors and assistant-directors, the highest percentages (40.0% and 35.7%, respectively) have earned only Bachelor's degrees and postgraduate diplomas.

As to the specialisation of the teaching staff working at the 18 regional districts of the country, the majority (70.5%) specialised in School Management/Administration. A smaller but not insignificant group (12.2%) reported a major in School Management and Planning. Among those reporting a specialty, the highest percentages (19.6% and 19.2%, respectively) of Master's degree holders earned a diploma in School Management and Planning as well as in Educational Research.

Physical infrastructure: current availability conditions and needs

School facilities are a vital part of the teaching and learning process, since they affect the quality of education. This has been a major stumbling block in the education system of the Dominican Republic, considering the huge deficits persisting for decades.

Insofar as this is one of the thorniest issues and a major source of social pressure, all governments over the past four years have spared no effort to tackle the problem; but no viable solution has yet been found. The main problems lie in a lack of financial resources, and in a lack of clear plans developed by the SEE units involved in infrastructure projects.

In 1996 there were 19 000 classrooms available in the Dominican Republic. This figure rose to 26 000 in 2000 and to 29 000 in 2004, *i.e.* an increase of only 10 000 classrooms in eight years. Successive governments have been assisted by the international community, through the financing of projects aimed to improve and expand existing facilities. Co-operation was offered via multilateral assistance and grants from sister nations such as Japan, Taiwan, Korea, the European Union, Germany (KFW), the United States, to cite but a few; as well as NGOs and other institutions, the business sector, and private individuals. Despite these efforts, if the Dominican Republic is to honour its commitment to the Millennium Development Goals, the education system must replace, renovate or rebuild 14 000 schools, and provide an additional 10 000 classrooms in the short term, if it is to comply with the official plan to reduce the number of daily shifts in

schools to a maximum of two. In other words, there is still a short-term deficit of 24 000 classrooms.

According to cost estimates related to the Millennium Development Goals, the total expenditure needed for school infrastructure is about USD 1 446 million.

Resources and pedagogical strategies

a) Improvement of Pre-Primary Education

The pre-primary education programme aims to expand the availability of quality educational services for children aged 0-5 years, through interventions focused on early development. The programme has four components: i) expansion of services targeting pre-primary education; ii) improvement of quality; iii) strengthening of the pre-primary education sector; and iv) management and monitoring of the programme.

b) Multi-phase Programme for Equity in Primary Education – Phase 1

This programme seeks to improve equity at the primary level, through capacity building in the management and implementation of specific SEE programmes. The programme has the following objectives: i) to improve the learning outcomes of pupils in rural areas; ii) to enhance instructional outcomes in marginalised urban sectors; iii) to improve the management of education centres; and iv) to promote the initiatives identified in the Education Development Plan (PDE).

This programme comprises four components: i) rural multi-grade education, ii) improved equality in marginalised urban areas, iii) strengthening of educational management, and iv) the introduction of bid solicitations in educational innovations.

c) Multi-phase Programme for the Modernisation of Secondary Education

The overall purpose of this programme is to improve access to, and quality of, secondary education. The specific objectives are: i) to revamp education delivery and optimise existing infrastructure; ii) to promote efficiency in school management; iii) to review secondary education plans and programmes leading to adequate provision and workload; iv) to ensure the availability of instructional inputs; v) to modernise human resources

training policies; and vi) to reduce the risks of academic failure among young students.

The programme has three components: i) access to, and internal efficiency of, secondary education; ii) three quality-related axes (education management, curriculum development and human resources training); iii) enhanced equity and risk reduction among young people.

d) TV Centres Programme

The TV Centres stem from a strategy implemented at the secondary level intended for pupils in remote areas, mostly rural, with no access to an education centre, either due to the distance to be covered or to a low student population with no infrastructure or teaching staff available. This strategy requires adequate facilities, video and TV equipment, instructor training, along with the reception and production of adequate video programmes as educational support material.

There are currently an estimated 123 TV Centres operating in 15 of the 18 regional education districts (with the exception of regional districts 10, 15 and 18), accounting for a total of 10 176 students in the four grades of secondary education and covering 208 sections delivering morning, afternoon and occasional evening classes.

e) Distance education: Primary and Secondary Levels for Adults (PREPARA)

This adult education programme, under the supervision of the Adult Education Division, is intended for young people and adults who are given the opportunity to complete primary education or the secondary level through distance education or attending a number of classes. The programme covers the following:

- Third cycle of adult primary education (grades 7 and/or 8 of general education) lasting one-year.
- General secondary education, which normally lasts four years.
- *Bachillerato Acelerado*, an accelerated programme lasting two years instead of the regular four required at the secondary level.

f) Compensation programmes and initiatives

Compensation programmes and initiatives include all actions aimed at reducing the impact of inequality on the most vulnerable groups, by

ensuring educational access and survival to disadvantaged children and young people of both genders.

Among the major programmes are the following:

- The Conditional Cash Transfer (*Programma de Incentivo a la Asistencia Escolar* (ILAE) through which mothers living in conditions of poverty or dire poverty are granted DOP 300, contingent on sending their children to school.
- The School Meal Programme (PAE) which is being developed in disadvantaged urban areas, and also provided in other sectors (distribution of solid and liquid food), intended for children of both sexes at the primary level in urban and rural areas (PAE Real). In 2005, 1 412 577 portions were distributed daily in 3 944 schools in disadvantaged urban areas, amounting to 239 549 080 portions; PAE Real catered for 79 120 pupils in 589 schools, delivering 3 667 799 portions of food each month.
- Health programmes covering the distribution of vermifuge, along with iron and vitamin supplements as well as dental and eye-care.
- An initiative aimed at issuing birth certificates (in cases of late registration), to students under 16 years of age. To date, 12 262 students of both sexes have benefited from this programme.
- Other ancillary services include the provision of backpacks, uniforms, scholarships and other school-related co-operative services.

Educational attainment or quality of learning

Broadly speaking, the performance of eight-grade students taking the national exams at the primary level, and the 3rd cycle of adult formal and non-formal education, as well as in the fourth year of secondary education, can be considered inadequate.

According to the figures of the national examinations report corresponding to the last six years (1999-2005), the average scores of grade 8 pupils at the primary level in the four subject matters assessed fall generally below the passing grade (65), except in Spanish language, mathematics and social sciences (1999).

The same pattern is found in the third cycle of adult formal and non-formal education. Average figures for 2005 are low in Spanish (53.7), maths (50.1) and social sciences (52.1). The lowest average in natural sciences was 49.1% (2000). In non-formal adult education, the results are the same. The

percentages for 2005 are as follows: Spanish (55.3); maths (49.6); social sciences (51.8) and natural sciences (51.1).

Regarding the secondary level, the following table illustrates the averages on the national examinations:

Table 3.6 **National averages for the first sitting at the secondary level 1999–2004**

Year	Spanish	Mathematics	Social Sciences	Natural Sciences
1999	62.0	61.7	58.6	63.1
2000	70.5	55.0	64.7	56.2
2001	67.0	53.4	53.2	40.9
2002	61.6	52.3	54.6	46.6
2003	61.6	58.7	58.4	58.6
2004	61.5	60.0	60.5	64.4

Source: SEE, Statistics department.

In 2002, the National Institute of Teacher training conducted a study measuring performance in the curricular subjects taught in cycles I and II of primary education.

The study was based on a sample of 510 schools in the three sectors – public, private, and semi-official – covering a population of 71 352 students. Its aim was to measure the educational attainment of children and young people of both sexes in the finishing grades of each cycle by assessing curricular skills in Spanish, maths, social and natural sciences. The tests were administered to grade 5 students attending the primary level and the first year of secondary education.

The following table illustrates the results for fifth-grade students in subjects corresponding to the previous year, *i.e.*, the 4th grade of primary education. In the Spanish examination, boys as well as girls perform poorly, regardless of where they live.

The mean performance in mathematics was also quite low, although relatively higher than in Spanish. Again, there were no statistical differences in terms of gender and geographical origin.

In an attempt to better understand the results, the Curriculum Directorate-General implemented in 2000–2001 a companion programme of curricular development in the classroom.

Table 3.7 **Fourth-grade pupils' averages in Spanish by competency**

Competency	Average
Communication	42.71
Intellectual	27.99
Linguistic	24.46
Average	31.72

Source: SEE, Statistics department.

Evidence obtained from the 187 schools surveyed during this period at the 16 regional offices operating in the country reveals that teachers of both sexes experience great difficulties with planning the learning process and preparing students for the exams. There is a lack of coherence between what is planned and what is being implemented and between planning and curricular objectives. Such inconsistencies among purpose, curricular content, and teaching strategy hinders student learning. There is also insufficient use of learning processes based on innovation and available technologies; teaching and learning depend on written material, with not much room for other types of resources.

Clearly, there is a need for significant changes in pedagogy, and for more effective learning strategies.

Goals and actions undertaken between 1996 and 2000, in the framework of the Ten-Year Education Plan.

The most important achievements toward raising the education level of the population were the following: the expansion of pre-primary, primary, secondary and adult education; a higher literacy rate, through implementation of a nationwide programme; strengthening of post-literacy programmes up to grade 8; development of formal education; extension of educational coverage at all levels (4.3% yearly on average); 375 000 new entrants on average per year; a strategic approach in pre-primary education; expansion of coverage to grade 8 in rural areas; an increase in promotion and survival rates, along with shrinking rates of repetition, drop-out and over-age.

As to the improvement of the quality of education**,** the following steps were taken: better training of personnel, through the development of graduate and postgraduate programmes; a new curriculum to guide and train teachers, along with the production of a multitude of support materials; better physical and instructional conditions in classrooms and educational

centres; the distribution of textbooks to all students in pre-primary, primary, secondary and adult education; a two-fold increase in teachers' salaries and other incentives; the Meritorious Students programme and its corresponding college scholarships, awarded to students with outstanding grades on the national examinations; redesigning of national exams; and provision of school meals to 1.2 million pupils.

The programmes implemented toward upgrading the education system and the introduction of new technologies included the following: the installation of 300 computer labs in the same number of schools, to give poor students access to technology; seven virtual classrooms for teacher-centred continuing education; implementation of a computer education programme to teach computer skills and curriculum content; secondary schools equipped with TV sets and instructional videos for student use; design of a web page to support the curriculum and for students' use; enactment in 1997 of General Education Law No. 66, along with revamping of the Department of Education (SEE) in accordance with this Act; upgrading of SEE administrative processes; introduction of modern communication systems, and new strategies related to education financing.

The strengthening of vocational/technical education generated the following outcomes: quality vocational education to teach the necessary skills to integrate young people into the labour market; upgrading of all study programmes and their extension to 40 hours per week; opening of new fields of study; an increase in teachers' remuneration; tougher professional requirements; modernisation of 19 polytechnics, and the introduction of advanced technology; establishment of six new institutions to teach modern skills required by the labour market; and training of 600 teachers.

Efforts to promote the participation of all stakeholders, and to build a school/community partnership led to the following: consolidation of 5 000 associations of parents, tutors and friends of the schools; drafting of new regulations for these associations; creation of 2 500 schools intended for families; training of 84 272 parents of both genders; more technical members on the Community Participation Board; training of 2 000 community leaders related to the schools; distribution of motorcycles to the 112 technical members of Community Participation; creation of the Directorate-General of Community Participation.

A number of challenges are still to be met within the framework of the Ten-Year Education Plan 1992-2002, in terms of access and survival, curriculum reform, teachers' working conditions, institutional reform, community participation, and resource allocation. These are all included in the Education for All (EFA) project and the United Nations Millennium Development Goals.

The strategic education development plan 2003-2012

The Strategic Education Development Plan of the Dominican Republic for 2003-2012, submitted to various stakeholders in April 2003 (EFA Framework for Action) states that Dominican society is committed to the following vision to be implemented by the end of the first decade of the 21st century:

> *"Access to relevant quality education will be provided to all in the Dominican Republic with a view to uphold the principle of diversity, to strengthen cultural identity, to promote education for democracy and active life; and to foster new attitudes, the transformation of society, and collective welfare, as a way to ensure sustainable development and a culture of peace".*[7]

To honour this vision, five strategic focal points have been identified and developed along the following lines: Democratisation and equity; quality of education; quality of teaching; decentralisation; and financing.

The Millennium Development Goals

The second Millennium Goal – "to ensure universal primary-school enrolment" – stipulates that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. This goal has been redefined as follows by the Dominican Republic: "to ensure that, by 2015, all 15-year-old males and females will be able to complete nine years of quality primary education."

To this end, the following must be achieved:

- Starting from the school year 2007/08, all 5-year-old children, boys and girls alike, must have access to quality pre-primary schooling.
- Educational structures must be reorganised to transform it into a school-based system.
- Repetition, drop-out and over-age must be reduced to a minimum.

Specific actions are planned throughout the education system in order to improve the school infrastructure and the quality of the teaching staff, as well as to significantly enhance the learning process.

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7 *Plan Estratégico de Desarrollo de la Educación Dominicana 2003-2012***:** *Visión Estratégica*, Vol.2, (SEE, 2003), pp. 15-16.

Policy design for the education sector

In accordance with General Education Law 66-97, the Strategic Development Plan, and the Millennium Goals, the present management at the Department of Education has set a number of priorities aimed at ensuring the expansion of educational services and the optimisation of the teaching staff, the quality and relevance of the system, as well as the design of a new open, horizontal and participatory management structure. This model should focus on equity, quality, innovation, modernisation and education leading to the labour market.

Ten key policies have been formulated:

- To foster public and private mobilisation in order to ensure that Dominican children, boys and girls alike, will be able to complete at least one year of pre-primary education and 8 years of quality primary education.
- To promote the reform, strengthening and expansion of secondary and adult education in order to foster values of citizenship, and to prepare students for their entry into the workplace or into higher education.
- To encourage family and community participation, along with the involvement of NGOs in the implementation of instructional policies, programmes and projects.
- To promote equality in education and support for students in the most vulnerable social sectors.
- To give priority to the training of highly-qualified human resources, and to promote professional development and retention of the teaching staff.
- To enhance training in science at all levels, and to promote the use of information and communication technology (ICT).
- To review periodically the curriculum to meet the needs for social, political and economic development of the Dominican Republic and international education standards.
- To establish clear quality standards and an evaluation system that ensures the monitoring of education performance and encourages the mobilisation of the school, the family and the community toward the improvement of education. To ensure that the certifications and diplomas awarded are consistent with the learning that is taking place.

- To conduct the restructuring processes necessary to allow open and flexible participation in implementing educational actions, plans and programmes.
- To guarantee the expenditure on education in order to achieve the goals of education coverage, quality and equity in conformity with the General Education Law.

Advances and drawbacks in higher education

Present situation:

"Higher education in the Dominican Republic has been through a unique expansion process since the beginning of the reforms introduced in the 1960s. Up to that decade there was only one higher learning institution in the country, Universidad Autónoma de Santo Domingo, *a public institution with 3 729 registered students. In 2003 there were 38 institutions, including 29 universities, 5 technical institutes, and 5 specialised tertiary institutions (as of September 2005, there were 43 higher education institutions registered)*[8]*. That same year, there were an estimated total of 322 000 registered students accounting for a* net enrollment rate *of 25.8% as regards the 18-24 age cohort (Table 3.8). According to the statistics, from 122 students per 100 000 inhabitants in 1960 the numbers went up to 3 380 per 100 000 inhabitants in 2003."*[9]

The most recent figures for 2004 and 2005 indicate that net coverage (total enrolment as a percentage of the 18-24 age group) has remained unchanged since 2002, practically at the same average level of 25.4%. The proportion of students per 100 000 inhabitants in 2004 was 3 498 and 3 542 in 2005.

Analysis of enrolment growth in higher education indicates that, from 2005, the numbers will grow, supporting (quantitatively) the Dominican Republic's economic development. Nevertheless the structure of the curriculum – in terms of academic programmes – must be revised and adjusted to increase the quality of higher education. A stronger relationship

8 Informe General sobre Estadísticas de Educación Superior 1989-2005, Department of Statistics 2006, p.49.

9 Secretaría de Estado de Educación Superior, Ciencia y Tecnologia. *Informe General sobre la Situación de la Educación en la República Dominicana*. SEESCyT, Santo Domingo, October 2005.

between qualitative and quantitative evolution of higher education and the Republic's socio-economic development levels is needed.

Table 3.8 **Higher education enrolment and system's gross coverage 1950-2005**

Year	Institutions	Enrolment	Population		Gross Coverage (%)
			Total	18-24	
1950	1	1 987	2 135 900	307 777	0.6
1960	1	3 729	3 047 100	390 253	1.0
1970	4	20 602	4 009 500	499 383	4.1
1985	19	123 748	6 416 289	958 739	12.9
1993	28	108 335	7 293 390	1 079 013	10.0
2002	39	286 134	8 562 541	1 112 118	25.7
2003	38	298 092	8 819 000	1 199 961	24.8
2004[1]	44	313 427	8 960 000	1 227 642	25.5
2005[1]	43	322 311	9 100 000	1 247 708	25.8

Source: SEESCyT, Statistics department, Sept. 2005.

Note:

[1] Data further incorporated, *Boletin Estadistico* No. 1, SEECyT, December, 2005.

Programmes and students in higher education

In 2003, there were in the Dominican Republic 38 higher education institutions offering, according to SEESCyT data, 936 study programmes; however, the titles of programmes have since been reduced to 426, in which 298 092 students were enrolled.

Table 3.9 **Programmes offered and students enrolled, by level (2003)**

Levels	Number of Programmes	Programmes Executed	Number of Students	Students (%)
Post secondary Technician	77	114	11 578	4
Undergraduate	169	502	277 311	93
Post graduate	180	320	9 203	3
TOTAL	426	936	298 092	100

Source: SEESCyT, Statistics department 2003.

During 2005, the 43 higher education institutions offered 1 063 academic programmes with 322 311 students enrolled, 93.6% of them in undergraduate programmes.

Table 3.10 **Programmes offered and students enrolled, by levels (2005)**

Level	Programmes	Students	
		Enrolled	%
Not specified	10	168	0.05
Post Secondary Technical	119	12 501	3.88
Undergraduate	720	301 697	93.60
Specialisation	97	3 218	1.00
Masters	117	4 727	1.47
TOTAL	1 063	322 311	100.00

Source: SEESCyT, Statistics department 2005.

During the last three years, there was a steady demand for the ten favourite study programmes, accounting on average for 80% of total enrolment, with slight variations among them regarding preference. In 2003, Education programmes had the highest enrolment rate at technical, grade and post-graduate levels, accounting for 18.8% of total enrolment, followed by accounting, marketing and law (9.5, 9.3 and 8.7% respectively), informatics, administration and medicine have more than 20 000 students. At post-graduate level, medicine and education have the highest percentages, although they account for only 1.9% of total enrolment.

Table 3.11 **The 10 most popular programmes, by study level, 2003**

	Programmes	Technical	Grade	Post-grade	Total	%
1	Education	5 500	48 696	1 958	56 154	18.8
2	Accounting	289	27 842	314	28 445	9.5
3	Marketing	549	26 973	252	27 774	9.3
4	Law	-	25 285	741	26 026	8.7
5	Informatics	1 754	21 682	39	23 475	7.9
6	Administration	110	20 706	576	21 392	7.2
7	Medicine	-	18 673	1 365	20 038	6.7
8	Psychology	-	13 036	341	13 377	4.5
9	Civil Engineering	-	10 905	-	10 905	3.7
10	Industrial Engineering	-	10 120	-	10 120	3.4
	TOTAL (10 programmes)	8 202	223 918	5 586	237 706	79.7
	Total enrolment				298 092	

Source: SEESCyT, Statistics department, 2003.

In 2005, Education remained in first place, but only at undergraduate level; informatics at technical level, and post-graduate enrolment in administration, moved to first place.

Analysis of post-graduate programmes reveals significant growth in this type of studies, due to new options offered by the internationalisation of higher education and an increase in on-line programmes.

Table 3.12 **The 10 most popular programmes, by study level, 2005**

Programme			Level			
Total enrolment: 322 311		Total	Not specified	Tecnical	Under graduate	Post graduate
Total (10 programmes)		253 515	1	9 580	237 725	6 209
1	Education	45 206	1	2 190	42 058	957
2	Accounting	34 815	0	1 819	32 555	441
3	Law	32 660	0	0	32 045	615
4	Administration	26 802	0	159	24 214	2 429
5	Informatics	25 706	0	4 796	20 733	177
6	Marketing	24 577	0	413	23 883	281
7	Medicine	24 408	0	26	23 440	942
8	Psychology	15 293	0	8	14 993	292
9	Civil engineering	12 564	0	88	12 426	50
10	Industrial engineering	11 484	0	81	11 378	25

Source: SEESCyT Statistics department, Nov. 2005.

Updated figures for 2004 and 2005 – by levels and study fields, and organised in differentiated groups – show slight changes in total enrolment but important changes in health and social sciences. Also, enrolment in basic and applied sciences as well as agriculture diminished during 2004 and 2005, while enrolments in philosophy and the humanities remained stable. Enrolment increases substantially at specialisation and Master's levels, which reveals an upward trend in the quality of graduates. The following tables show the variations from one year to another, by study field and levels. (Tables 3.13 and 3.14)

In terms of gender, it is important to note that the distribution of students has changed from year to year showing a steady growth of female students between 1977 and 2003, especially among those enrolled at the state university (UASD) since in private institutions the trend is stabilising, with female participation growing by less than 1% between 1997 and 2002 (See

Quiroga, Lucero, *Feminización de la Matrícula Universitaria en República Dominicana 1977-2000).*

Table 3.13 **Students enrolled in higher education, by level and study field, 2004**

		Levels				
Study fields	Total	Not Specified	Technical	Grade	Specialisation	Master
	313 427	3 291	13 794	291 551	2 165	2 626
Basic sciences and technology	78 786	0	3 228	75 302	65	191
Basic and applied sciences	3 561	0	0	3 506	16	39
Engineering and technology	70 473	0	3 060	67 232	49	132
Agricultural science	4 752	0	168	4 564	0	20
Medicine	36 188	0	2 484	33 094	509	101
Philosophy and humanities	82 054	0	6 631	74 877	336	210
Social sciences	113 108	0	1 451	108 278	1 255	2 124
Not specified	3 291	3 291	0	0	0	0

Source: SEESCyT, Statistics department, 2005.

Table 3.14 **Students enrolled in higher education, by level and study field, 2005**

		Levels				
Study Fields	Total	Not Specified	Technical	Grade	Specialisation	Master
	322 311	168	12 273	301 925	3 218	4 727
Basic sciences and technology	72 642	0	5 827	66 148	142	525
Basic and applied sciences	912	0	19	644	40	209
Engineering and technology	69 038	0	5 657	63 013	72	296
Agricultural science	2 692	0	151	2 491	30	20
Medicine	41 015	0	485	39 259	1 234	37
Philosophy and humanities	82 561	1	2 579	78 423	584	974
Social sciences	125 923	0	3 382	118 095	1 258	3 188
Not specified	170	167	0	0	0	3

Source: SEESCyT, Statistics department, 2005.

By 1977, female enrolment in private higher education institutions was 40% with an increase of 5 percentage points every five years, reaching in 1990 the equilibrium point. In 1995 female participation rose to 58%, in

1999 to 59%, in 2002 to 62.6%; in 2003 female participation was 63.2%, and male participation 36.8%. In 2005, female participation accounted for 61.09% of total enrolment.

Considering this feminisation process in higher education enrolment, and to understand both this phenomenon and the situation of women in Dominican society, the *Instituto Tecnologico de Santo Domingo* (INTEC), has introduced a Master's programme on Gender and Development.

Table 3.15 **Students enrolled, by level and gender, 2003**

Levels	Females	%	Males	%	Total	%
Technical	7 731	4.1	3 847	3.5	11 578	4
Grade	176 307	93.5	101 004	92.2	277 311	93
Post-graduate	4 487	2.4	4 716	4.3	9 203	3
Total	188 525	100	109 567	100	298 092	100

Source: SEESCyT Statistics department, 2003, elaborated by Daniel Vargas.

Table 3.16 **Students enrolled, by level and gender, 2005**

	Not reported		Males		Female			
	Total	%	Total	%	Total	%	Total	%
TOTAL	2 876	100.00	122 531	100.00	196 904	100.00	322 311	100
Not specified	0	0.00	35	0.03	133	0.07	168	0.05
Techical	0	0.00	5 781	4.72	6 720	3.41	12 501	3.88
Grade	0	0.00	114 537	93.48	187 160	95.05	301 697	93.60
Specialisation	1 106	38.46	772	0.63	1 340	0.68	3 218	1.00
Master	1 770	61.54	1 406	1.15	1 551	0.79	4 727	1.47

Source: SEESCyT Statistics department, 2005.

As for geographical origin of the students (rural or urban), the percentage of students from urban areas is by far the largest. According to the *Informe sobre la Educación Superior UNESCO-SEESCyT*, published in 2003, roughly 8% of students enrolled in higher education institutions come from rural areas while 92% are from urban areas, especially from the provinces of Santo Domingo, Santiago, San Francisco de Macorís, La Vega,

San Pedro de Macorís and Monseñor Nouel. According to the same report, 62% are in the public education sector and 38% in the private sector.

The same report shows that 54.2% of students are concentrated in Santo Domingo while 12% take courses in Santiago and the remaining 33.8% of students are distributed unevenly among the different provinces of the country.

According to the UNESCO report, 75% of the students are between the age of 17 and 25, 19% are between the age of 26 and 40, and 6% are over 40. The level of higher education attendance for students between the ages of 17 and 25 is 15.2%, a slight decrease from the level of 15.4% in 1998.

In 2002, student drop-out was estimated at 25%, and another 25% drop-out or change study programme during the first year. At present, drop-out is estimated at more than 50%. The UNESCO-SEESCyT report identified lack of resources and the need to work as the main reasons behind drop-out (pp. 86-87). These figures show a gap between access to and survival in higher education programmes, especially among poorer students.

For the period 1993-2005, the average annual growth rate of academic enrolment was 10.7%.

Table 3.17 **Students' enrolment growth (1993-2005)**

Year	Enrolment	Growth rate (%)
1993	108 335	—
1994	128 335	15.6
1995	136 267	6.2
1996	152 486	11.9
1997	179 826	17.9
1998	197 211	9.7
1999	224 075	13.6
2000	245 056	9.4
2001	231 035	-5.7
2002	286 134	23.8
2003	298 092	4.2
2004[1]	313 427	5.1
2005[1]	322 311	2.8

Source: SEESCyT Statistics department, 2003.

[1] Data subsequently incorporated from *Boletín Estadístico No. 1*, SEECyT, December, 2005.

The following table shows the distribution of student enrolment in 2005. The state university UASD accounts for the greatest percentage of students

(49.5%), followed by *Universidad Tecnologica de Santiago* (UTESA) with 12.1%.

According to the latest figures**,** foreign students attending higher education institutions accounted for 1.61% of the number of the total students registered.[10] As can be seen in the following table, *Universidad Catolica Madre y Maestra* (PUCMM) has the greatest number of foreign students (1,384), 26.7% of the total. Other institutions with relevant numbers of foreign students are: *Universidad Tecnologica de Santiago* (UTESA), 17.9%; *Universidad Iberoamericana* (UNIBE) with 15.3%; *Universidad Central del Este* (UCE) with 11.1%; *Universidad Autonoma de Santo Domingo* (UASD), 6.1%; *Universidad Nacional APEC* (UNAPEC) 4.9%; and *Universidad Católica Santo Domingo* 4.5%.

[10] Secretaría de Estado de Educación Superior, Ciencia y Tecnología. *Informe General sobre la Situación de la Educación en la República Dominicana*. SEESCyT, Santo Domingo, October 2005, p. 144.

Table 3.18 **Student enrolment by institutions and levels (2005)**

			Level			
Institution	Total	Not Specified	Technical	Grade	Specialisation	Master
Total	322 311	168	12 273	301 925	3 218	4 727
1 UASD	159 396	0	2 917	153 569	1 106	1 804
2 UTESA	38 870	0	5 556	33 200	0	114
3 O&M	32 871	0	0	32 674	10	187
4 UNICARIBE	13 971	0	1	13 970	0	0
5 PUCMM	13 050	156	76	11 211	603	1 004
6 UCSD	7 415	0	19	6 527	597	272
7 UNAPEC	7 267	0	365	6 023	399	480
8 UCE	6 824	0	2	6 801	1	20
9 UCATECI	5 219	0	70	5 075	0	74
10 IINTEC	5 092	0	0	4 385	310	397
11 UAPA	4 506	0	0	4 471	0	35
12 UNIBE	3 889	0	0	3 803	2	84
13 UCNE	3 465	0	12	3 382	39	32
14 UNPHU	2 934	0	149	2 700	66	19
15 SALOMÉ UREÑA	2 778	0	121	2 657	0	0
16 ITECO	2 470	0	1 591	879	0	0
17 UFHEC	1 921	0	3	1 918	0	0
18 UTESUR	1 689	0	417	1 272	0	0
19 UTE	1 518	0	95	1 325	71	27
20 UNEV	1 236	12	0	1 145	1	78
21 UNAD	1 143	0	88	1 055	0	0
22 UNIREMHOS	632	0	0	632	0	0
23 ISA	622	0	43	544	0	35
24 UNICA	562	0	49	500	0	13
25 IPL	401	0	362	39	0	0
26 UNICDA	352	0	7	332	13	0
27 INCE	329	0	0	329	0	0
28 UCATEBA	292	0	0	292	0	0
29 UAFAM	284	0	0	284	0	0
30 UPID	265	0	76	189	0	0
31 UCDEP	164	0	0	164	0	0
32 IEESFA	156	0	0	156	0	0
33 UCADE	152	0	0	152	0	0
34 ITESUMJ	149	0	149	0	0	0
35 UNEFA	124	0	0	124	0	0
36 UNNATEC	79	0	10	69	0	0
37 VALERO	65	0	55	10	0	0
38 BARNA	52	0	0	0	0	52
39 IDT	40	0	40	0	0	0
40 UOD	38	0	0	38	0	0
41 ICES	29	0	0	29	0	0
42 INSUTEC (1)	0	0	0	0	0	0
43 IEESPN	…	…	…	…	…	…

Source: SEESCyT, Statistics department, 2005.

Table 3.19 **Foreign students, by levels, gender and institutions, 2005**

		Level							
		Not Specified		Technical		Degree		Post-graduate	
Institutions	Total	Males	Females	Males	Females	Males	Females	Males	Females
TOTAL	5 184	34	121	103	48	2 571	2 183	55	69
PUCMM	1 384	31	119	10	6	545	623	22	28
UTESA	926	0	0	57	11	569	289	0	0
UNIBE	794	0	0	0	0	428	361	1	4
UCE	576	0	0	0	0	337	239	0	0
UASD	325	0	0	0	3	147	175	0	0
UNAPEC	253	0	0	6	8	105	115	10	9
UCSD	232	0	0	0	0	87	125	10	10
INTEC	164	0	0	0	0	75	71	7	11
ISA	140	0	0	10	10	97	23	0	0
UNPHU	127	0	0	0	2	59	62	2	2
UNICARIBE	58	0	0	0	0	34	24	0	0
UNICDA	38	0	0	0	0	23	14	0	1
UTE	38	0	0	2	2	14	17	0	3
UNICA	22	0	0	4	2	8	5	2	1
O&M	18	0	0	0	0	15	3	0	0
UCNE	18	0	0	0	0	5	13	0	0
UFHEC	15	0	0	0	0	6	9	0	0
OSCUS	12	0	0	12	0	0	0	0	0
UNNATEC	8	0	0	1	0	5	2	0	0
INCE	5	0	0	0	0	1	4	0	0
ITESUMJ	5	0	0	1	4	0	0	0	0
IEESFA	5	3	2	0	0	0	0	0	0
UCATEBA	4	0	0	0	0	2	2	0	0
UNEV	4	0	0	0	0	3	1	0	0
UCDEP	3	0	0	0	0	2	1	0	0
UAFAM	2	0	0	0	0	0	2	0	0
UCADE	2	0	0	0	0	0	2	0	0
UNAD	2	0	0	0	0	2	0	0	0
UAPA	1	0	0	0	0	1	0	0	0
UNEFA	1	0	0	0	0	1	0	0	0
BARNA	1	0	0	0	0	0	0	1	0
UNIREMHOS	1	0	0	0	0	0	1	0	0

Source: SEESCyT, Statistics department, 2005.

Graduate students

Education reform has led not only to an increase in the number of institutions and in the flow of students. The flows of graduate students also clearly reflect a steady growth over the last four decades. Available data from the SEESCyT Department of Statistics indicate that, between 1950 and 1960, some 376 students graduated per annum from Universidad de Santo Domingo. During the 1990s, the 25 institutions that constituted the system awarded diplomas to a total of more than 160 000 students, an average of 16 064 students per year. The figure for 2004 was above 32 000 according to data reported by 29 institutions, an increase of 53.5% compared to 1990. The average annual growth rate of graduates for the period 1990-2004 was 5.5%. The following table 3.20 shows the flow of graduates per year during the period 1990 to 2004, as well as post-graduate degrees granted by UASD.

Table 3.20 **Higher education institutions and flow of graduates, per year (1990-2004)**

Year	Higher education institutions	Graduates	Annual growth rate (%)
1990	22	15 297	—
1991	24	15 726	2.8
1992	26	15 903	1.1
1993	26	14 905	-6.3
1994	25	15 219	2.1
1995	25	18 132	19.1
1996	24	16 695	-7.9
1997	26	15 876	-4.9
1998	29	16 749	5.5
1999	27	16 139	-3.6
2000	29	21 928	35.8
2001	28	21 982	0.2
2002	32	24 281	10.5
2003	32	28 579	17.7
2004	44	32 746	14.5
Post-graduate UASD 1990-2003		4 950	—
Total		295 107	

Source: SEESCyT Statistics department.

Table 3.21 presents data from 2004 which show that 83.4% of the total number of graduates were at undergraduate level; 9.0% at the technical level and 7.7% at the post-graduate level. Institutions that reported the greatest number of graduates are *Universidad Autónoma Santo Domingo* (UASD)

with 8 054 graduates; *Universidad Tecnologica de Santiago* (UTESA) with 3 809 and *Universidad Abierta para Adultos* (UAPA) with 3 337 graduates.

Table 3.21 **Graduates by institutions and levels, 2004**

	Institutions	Total		Levels			
				Technical	Grade	Specialisation	Master
		32 746	100.00	2 935	27 303	1 370	1 138
1	UASD	8 054	25	354	7 700	0	0
2	UTESA	3 809	12	89	3 720	0	0
3	UAPA	3 337	10	37	3 149	78	73
4	PUCMM	2 206	7	199	1 341	305	361
5	O&M	1 494	5	0	1 479	4	11
6	UCE	1 466	4	13	1 395	13	45
7	ISFODOSU	1 372	4	1 096	276	0	0
8	UNAPEC	1 203	4	24	625	333	221
9	INTEC	1 152	4	0	742	213	197
10	UNICARIBE	917	3	0	917	0	0
11	UCDEP	853	3	36	817	0	0
12	UNPHU	813	2	81	655	52	25
13	UTESUR	780	2	206	574	0	0
14	UFHEC	654	2	156	498	0	0
15	UCNE	650	2	50	509	91	0
16	UCSD	645	2	2	409	225	9
17	UCATECI	628	2	38	559	1	30
18	UNIBE	589	2	5	553	7	24
19	ITECO	536	2	287	249	0	0
20	UTE	334	1	7	301	25	1
21	UNEV	319	1	13	301	0	5
22	UNIREMHOS	156	0	1	102	0	53
23	IPL	146	0	146	0	0	0
24	UNAD	123	0	7	116	0	0
25	UNEFA	106	0	0	106	0	0
26	UAFAM	72	0	6	66	0	0
27	BARNA	70	0	0	0	0	70
28	ISA	57	0	5	28	11	13
29	UOD	51	0	2	49	0	0
30	UPID	49	0	49	0	0	0
31	IEESFA	42	0	0	42	0	0
32	UNICDA	40	0	24	4	12	0
33	INCE	21	0	0	21	0	0
34	IDT	2	0	2	0	0	0

Source: SEECyT Statistics department - *Note:* Of the existing 44 higher education institutions in 2004, only those included in this table provided information about graduates.

The 15 study programmes with the greatest number of graduates in 2004 were education, law, administration, accounting, marketing, medicine, informatics and psychology, which represent 81.16% of the total.

Table 3.22 **The 15 programmes with the greatest number of graduates, by level, 2004**

	Programmes	Total		Technical	Graduate	Specialisation	Master
		Total	%	Total.	Total	Total	Total
		29 686	100.0	2 537	25 148	998	1 003
1	Education	10 145	34.2	2 090	7 667	207	181
2	Law	3 584	12.1	0	3 408	160	16
3	Administration	3 335	11.2	58	2 227	491	559
4	Accounting	2 917	9.8	71	2 833	0	13
5	Marketing	2 649	8.9	68	2 415	6	160
6	Medicine	1 459	4.9	0	1 345	79	35
7	ITs	1 366	4.6	160	1 127	45	34
8	Psychology	1 122	3.8	30	1 092	0	0
9	Industrial engineering	897	3.0	8	889	0	0
10	Civil engineering	703	2.4	3	696	0	4
11	Architecture	331	1.1	1	328	1	1
12	Nursery	321	1.1	30	291	0	0
13	Dentistry	303	1.0	7	287	9	0
14	Advertisement	288	1.0	0	288	0	0
15	Tourism and hotel administration	266	0.9	11	255	0	0

Source: SEESCyT, Statistics Department.

Teaching personnel

Of the 10 870 teachers registered in 43 higher education institutions in 2005, 35.4% have a degree, 9.5% have a specialisation, 25% have a Master's degree and only 1.4% a PhD. Twenty-five percent of all teachers in HE are employed by *Universidad Autonoma de Santo Domingo* (UASD) and 11.4% by *Universidad Tecnologica de Santiago* (UTESA), both institutions accounting for one-third of the total teaching personnel. It is important to point out that some teachers work in more than one institution.

Information related to *Universidad Autónoma Santo Domingo* (UASD) has not been disaggregated; it appears in the "non-specified" column. However, it is likely that it follows the same structure as in 2002, with more than half the teacher staff having a degree.

Table 3.23 **Teachers by level of training, 2005**

Institution	Total		Not Specified		*Diplomado*[1]		Technical		Grade		Specialisation		Master		PhD	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
	10 870	100.00	2 900	100.00	65	100.00	115	100.00	3 851	100.00	1 036	100.00	2 753	100.00	150	100.00
UASD	2 718	25.00	2 718	93.72	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
UTESA	1 239	11.40	0	0.00	0	0.00	0	0.00	686	17.81	43	4.15	500	18.16	10	6.67
PUCMM	854	7.86	0	0.00	0	0.00	29	25.22	287	7.45	59	5.69	437	15.87	42	28.00
UCE	669	6.15	15	0.52	0	0.00	0	0.00	576	14.96	18	1.74	52	1.89	8	5.33
INTEC	577	5.31	8	0.28	0	0.00	0	0.00	165	4.28	1	0.10	374	13.59	29	19.33
UNIBE	572	5.26	0	0.00	0	0.00	10	8.70	108	2.80	200	19.31	246	8.94	8	5.33
O&M	563	5.18	2	0.07	0	0.00	38	33.04	315	8.18	100	9.65	104	3.78	4	2.67
UNICARIBE	539	4.96	0	0.00	0	0.00	0	0.00	453	11.76	0	0.00	86	3.12	0	0.00
UNAPEC	528	4.86	4	0.14	37	56.92	2	1.74	125	3.25	107	10.33	247	8.97	6	4.00
UCSD	340	3.13	40	1.38	0	0.00	1	0.87	110	2.86	129	12.45	55	2.00	5	3.33
UCNE	318	2.93	76	2.62	0	0.00	3	2.61	238	6.18	1	0.10	0	0.00	0	0.00
UCATECI	300	2.76	0	0.00	0	0.00	0	0.00	134	3.48	72	6.95	93	3.38	1	0.67
UFHEC	222	2.04	1	0.03	12	18.46	0	0.00	86	2.23	65	6.27	57	2.07	1	0.67
UAPA	171	1.57	0	0.00	0	0.00	0	0.00	33	0.86	32	3.09	106	3.85	0	0.00

Institution	Total		Not Specified		*Diplomado*[1]		Technical		Grade		Specialisation		Master		PhD	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
UTE	144	1.32	0	0.00	0	0.00	0	0.00	53	1.38	11	1.06	75	2.72	5	3.33
UNIREMHOS	126	1.16	3	0.10	14	21.54	0	0.00	47	1.22	37	3.57	25	0.91	0	0.00
UNEV	114	1.05	1	0.03	0	0.00	0	0.00	58	1.51	15	1.45	35	1.27	5	3.33
S. UREÑA	103	0.95	0	0.00	0	0.00	2	1.74	32	0.83	27	2.61	40	1.45	2	1.33
UNAD	86	0.79	2	0.07	1	1.54	0	0.00	41	1.06	1	0.10	40	1.45	1	0.67
UCADE	67	0.62	0	0.00	0	0.00	0	0.00	57	1.48	0	0.00	10	0.36	0	0.00
UNICDA	65	0.60	0	0.00	0	0.00	0	0.00	24	0.62	16	1.54	23	0.84	2	1.33
UTESUR	64	0.59	0	0.00	0	0.00	0	0.00	19	0.49	32	3.09	12	0.44	1	0.67
ISA	61	0.56	26	0.90	0	0.00	0	0.00	19	0.49	8	0.77	8	0.29	0	0.00
IEESFA	58	0.53	2	0.07	0	0.00	0	0.00	35	0.91	6	0.58	15	0.54	0	0.00
UPID	49	0.45	0	0.00	0	0.00	0	0.00	25	0.65	11	1.06	13	0.47	0	0.00
IPL	46	0.42	0	0.00	0	0.00	20	17.39	14	0.36	8	0.77	4	0.15	0	0.00
BARNA	43	0.40	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	29	1.05	14	9.33
UCATEBA	43	0.40	0	0.00	0	0.00	2	1.74	13	0.34	10	0.97	17	0.62	1	0.67
UAFAM	36	0.33	0	0.00	0	0.00	0	0.00	24	0.62	5	0.48	7	0.25	0	0.00
UCDEP	31	0.29	0	0.00	1	1.54	0	0.00	26	0.68	1	0.10	3	0.11	0	0.00
UNEFA	30	0.28	0	0.00	0	0.00	0	0.00	3	0.08	7	0.68	18	0.65	2	1.33

Institution	Total		Not Specified		*Diplomado*[1]		Technical		Grade		Specialisation		Master		PhD	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
UOD	23	0.21	0	0.00	0	0.00	0	0.00	23	0.60	0	0.00	0	0.00	0	0.00
ICES	18	0.17	0	0.00	0	0.00	0	0.00	4	0.10	0	0.00	12	0.44	2	1.33
MERCY JACQUEZ	15	0.14	2	0.07	0	0.00	5	4.35	6	0.16	1	0.10	1	0.04	0	0.00
OSCUS	15	0.14	0	0.00	0	0.00	0	0.00	7	0.18	1	0.10	7	0.25	0	0.00
UNNATEC	9	0.08	0	0.00	0	0.00	0	0.00	2	0.05	5	0.48	1	0.04	1	0.67
INCE	8	0.07	0	0.00	0	0.00	0	0.00	1	0.03	6	0.58	1	0.04	0	0.00
IDT	6	0.06	0	0.00	0	0.00	3	2.61	2	0.05	1	0.10	0	0.00	0	0.00

Source: SEESCyT, Statistics department.

Note:

[1] *"Diplomado"* literally translated into English means "graduate"; however, in the Dominican Republic it refers to short-term higher education certification.

Deficiencies in teacher training are being reduced significantly, considering that in 1998 about 75% of all teachers had an undergraduate degree, only 15% had a post-graduate qualification, while for 10% the training level was unknown. The growth rate at the postgraduate level was 113%, increasing from 2 570 teachers to 5 485 in 2002. By 2005, 43.7% of teachers in higher education had a postgraduate qualification.

In terms of gender, male teachers account for 63%. The average age of teachers, according to the UNESCO-SEESCyT study, is 41 years.

Support personnel in higher education institutions (HEIs)

HEIs reported a total of 6 383 administrative staff in 2004. This represents only 0.2% of the total number of employees in the country, which amounts to 3 174 594 of the economically active population (EAP), according to the *Oficina Nacional de Estadísticas.*

In 1997-1998 the total number of administrative staff in HEIs was 5 300, of which 42% were female. The growth rate of support staff between 1997 and 2002 was 42%, with an annual growth rate of 8.43%. The average age is 36 years for males and 30 years for females. This ratio changes frequently, due to personnel being recruited and replaced.

In terms of training, 40% of support personnel in HEIs have a higher education degree; the remaining 60% have secondary or basic education (watchmen, gardeners, messengers, drivers, cleaners, etc.).

Art. 40 of Law 139-01 permits the participation of employees of HEIs in CONESCyT.

ICT Facilities

The use of information and communication technologies in Dominican HEIs is increasing steadily, according to research funded by IESALC/UNESCO, and later confirmed by SEESCyT. Internet services started in the country in 1995, and by the end of 2005 the use of computers in universities had increased by more than 50% from which 60% of the institutes of higher education has ICT systems and 80% a web page.

The following table shows the number of students in ICT, which is an indication of the sources of training for human resources for ICT. It should be noted that in this area of higher education institutes and programmes, more than 20 000 Dominicans currently receive training at present.

Table 3.24 **Students matriculated in the area of informatics according to career or programme and institution**

Institution	Career or Programme	Total
Universidad Dominicana Organización y Método, O&M	Specialty in AudO Computer Systems	10
	Engineer of Systems and Computerization	8.742
	Master in Software Engineering	144
	TOTAL O&M	**8,896**
Universidad Autónoma de Santo Domingo, UASD	Licencia in Informatics	6,182
	Master in Telecommunications	21
	Higher Technology in Repearing and Assembling of Computers	62
	Technology in Informatics	495
	TOTAL UASD	**6,760**
Universidad Tecnológica de Santiago, UTESA	Technology in Informatics	3,870
	TOTAL UTESA	**3,870**
Universidad del Caribe, UNICARIBE	Informatics	1,124
	TOTAL UNICARIBE	**1,124**
Pontificia Universidad Católica Madre y Maestra, PUCMM	Engineer of Systems and Computerization	447
	Telematics Engineerins	511
	Master in Engineering of Data Networks	1
	Master in Computer Technology for Education	1
	Technology of Systems and Computerization	5
	Telematics Technology	8
	TOTAL PUCMM	**973**
Universidad Apec, UNAPEC	Systems Analyst	176
	Engineering in Computer Systems	656
	Engineering in Information Systems	118
	TOTAL UNAPEC	**950**
Universidad Católica de Santo Domingo, UCSD	Engineerings	484
	Licencia in Informatics	74
	TOTAL UCSD	**558**
Universidad Católica Tecnológica del Cibao, UCATECI	Computer Systems Engineer	419
	Technology in Informatics	39
	TOTAL UCATECI	**458**
Universidad Central del Este, UCE	Systems Engineering	331
	Electrical Engineering	1
	Technology in Programming	2
	TOTAL UCE	**334**
Universidad Católica Nordestana, UCNE	Engieering in Systems and Computers	270
	Technology in Engineering of Systems and Computers	5
	TOTAL UCNE	**275**
Instituto Tecnológico del Cibao Oriental, ITECO	Licencia in Informatics	35
	Technology in Informatics	239
	TOTAL ITECO	**274**

Institution	Career or Programme	Total
Universidad Nacional Pedro Henriquez Ureña, UNPHU	Systems Engineering	56
	Licencia in Informatics	179
	Technology in Informatics	11
	TOTAL UNPHU	**246**
Instituto Tecnológico de Santo Domingo, INTEC	Systems Engineering	227
	TOTAL INTEC	**227**
Universidad Tecnológica del Sur, UTESUR	Informatics	187
	TOTAL UTESUR	**187**
Universidad Católica Tecnológica de Barahona, UCATEBA	Informatics	121
	TOTAL UCATEBA	**121**
Universidad Nacional Adventista, UNAD	Informatics	28
	Systems Engieering	40
	Licencia in Informatics	35
	TOTAL UNAD	**103**
Universidad Cultural Dominico Americana, UNICDA	Systems Engieering	80
	TOTAL UNICDA	**80**
Universidad Interamericana, UNICA	Informatics	59
	TOTAL UNICA	**59**
Universidad Nacional Tecnológica, UNNATEC	Licencia in Systems and Information Technology	49
	High Technology in Informatics	10
	TOTAL UNNATEC	**59**
Universidad Abierta Para Adultos, UAPA	General Informatics	37
	TOTAL UAPA	**37**
Universidad Psicología Industrial Dominicana, UPID	Technology in Informatics	26
	TOTAL UPID	**26**
Universidad Nacional Evangélica, UNEV	Informatics	25
	TOTAL UNEV	**25**
Instituto Tecnico Superior Oscus San Valero, OSCUS	Technology in Information Systems	23
	TOTAL OSCUS	**23**
Universidad Agroforestal Fernando Arturo de Meriño, UAFAM	Informatics	17
	TOTAL UAFAM	**17**
Universidad Eugenio María de Hostos, UNIREMHOS	Computers	16
	TOTAL UNIREMHOS	**16**

Institution	Career or Programme	Total
Universidad Central Dominicana De Estudios Profesionales, UCDEP	Licencia in Computer Systems Administration	8
	TOTAL UCDEP	**8**

Source: SEESCyT, Statistics Department.

More than half of all Dominican HEIs have computer laboratories. Another important aspect is how universities process information within their daily activities.

Students benefiting from computer laboratories

With SEESCyT policies to promote the enhancement of the use of TIC among students and teachers in higher education institutes, more than 13 computer rooms were set up in co-ordination with the Dominican institute of telecommunications (INDOTEL). From the opening to the public of the computer rooms on 11 April 2005 until 31 July 2006, 101 367 user consultations were registered, details of which follows.

Research on higher education

Research related to Dominican higher education has been limited. Sporadic activities include exhibitions, seminars, news articles, conferences and workshops organised by the system, however, those activities are not systematic, consistent or permanent. Among the possible reasons are:

- Lack of institutionalised incentives to support researchers.
- Difficulties in accessing the available information held in HEIs.
- Lack of information and statistics available in HEIs, leading to improvised and/or inconsistent data.

These three factors interact appear to interact to hamper self awareness of the higher education system and the reality of its work. Significant contributions have been developed in Master's degrees in higher education and education governance which exist in 13 programmes offered by seven universities. These contributions remain unknown outside the institutions. These programmes are not linked to institutional policies of publication of relevant contributions.

Development of SEESCyT policies

At the end of 2005, the country faced the new millennium with deficits and challenges. In order to ensure quality and relevance of the human resources demanded in an evolving world economy, higher education in the Dominican Republic is in need of fundamental reform. In particular, the following characteristics must be changed:

- The predominance of the undergraduate level, along with a progressive decrease of the technical and post-graduate levels in spite of recent expansion, should be better balanced according to the new demands of the labour market and scientific and technological development at national, regional and global levels.
- Qualitative differences among programmes offered by HEIs, and increasing asymmetries in physical infrastructure, laboratories, documentation centres, connectivity, and quality of teachers.
- Asymmetries among the basic functions of HEIs, with a concentration on academic activities, relegating activities like innovation, research and extension to second place.
- Absence of basic science programmes, in particular mathematics, biology, chemistry, physics, Spanish and foreign languages, among others.
- Differences among institutions in terms of the use of information and communication technologies, for both teaching and research, as well as for institutional management.
- Lack of institutional strategies able to respond to new trends in learning methods, such as in-classroom, out-of classroom, on-line classes, and "multi-modal" approaches.
- Insufficient international exchange with foreign HEIs, especially in areas related to science, technology and training of teachers and administrators.
- Lack of commitment among HEIs, businesses and commercial sectors in promoting national development.

Despite increasing national and public awareness of the need for education reform – especially in higher education – the system remains traditional, with little attention to labour market relevance and national competitiveness, as is evident from the following table:

Table 3.25 **The 10 HE programmes enrolling the largest number of students (2004-2005)**

	Programmes	2004		2005	
		Total	Percentages	Total	Percentages
Total		**225 761**	**100.00**	**253 515**	**100.00**
1	Education	38 967	17.26	45 206	17.83
2	Accounting	28 769	12.74	34 815	13.73
3	Law	25 825	11.44	32 660	12.88
4	Marketing	24 367	10.79	24 577	10.59
5	Administration	24 277	10.75	26 802	10.14
6	Medicine	21 972	9.73	24 408	9.69
7	IT	21 388	9.47	25 706	9.63
8	Civil engineering	14 943	6.62	12 564	6.03
9	Psychology	14 828	6.57	15 293	4.95
10	Industrial engineering	10 425	4.62	11 484	4.53

Source: SEESCyT, Statistics department, November, 2005.

When looking at table 3.25, we can see that Education, as of September 2005, is the programme with the highest level of enrollments, with 45 206 students (17.83%), even though it grew a little compared with the percentage registered in 2004. The programmes of accounting, law, marketing, administration, medicine and ICT with percentages between 13.73% and 9.63% are those with the next highest level of enrollments, whereas the programmes of civil engineering, psychology and industrial engineering remain at 6.03%, 4.95% and 4.53% respectively.

The increase in the number of HEIs has not provided significant advances in terms of diversity, quality and relevance of the programmes offered, contrary to the characteristics of the open economy model adopted by the Dominican Republic. Nor is the present system able to face the challenges arising from agreements signed with the World Trade Organisation (WTO) and the DR-Central America- United States of America agreement (DR-CAFTA). This new trade scenario requires a new orientation, so that the education system can serve the sustainable development of the country.

This situation, together with the experience gained from the Bologna Agreement, requires developing programmes, plans and projects aimed at promoting an authentic reform of the higher education system that respond, in the short, medium and long term to the powerful and demanding open market.

However, it must be recognised that both the Dominican society and government authorities are interested in creating mechanisms to promote the changes needed. The Department of Higher Education, Science and Technology (SEESCyT) develops, jointly with the HEIs, the policies required to improve equality, quality and relevance, as well as research and innovation. The following initiatives are mentioned here:

- The national and international scholarships programme, which has had a positive effect on the overall system. Between August 2004 and November 2005, 2 455 scholarships were granted, 2000 to local universities, and 445 to study abroad.
- Aiming to expand educational opportunities for Dominican youth, the Institutos Técnicos Comunitarios (Community Colleges) programme was designed to allow students to attend a two-year college leading to the job market or to go on to the graduate level.
- Similarly, in order to raise educational quality, the Programma de Orientación y Prueba Diagnóstica (POMA) has been established to assess the aptitudes and skills as well as the weaknesses of new entrants. This evaluation programme has been designed to guide students toward the careers in which the odds for success are high, and to implement strategies aimed to overcome students´ weaknesses. At its start, the programme evaluated 12 000 students at Universidad Autónoma de Santo Domingo and four private universities.
- The Programma de Inglés de Inmersión para la Competitividad introduces a second language into tertiary programmes. It seeks primarily to promote better-quality higher education in the country, and to increase the international competitiveness of the Dominican Republic. The programme also teaches basic English to students applying for international scholarships.
- In order to help narrow the digital gap in higher learning through the strengthening of ICT use by both teachers and students, SEESCyT launched the Salas Digitales de Educación Superior, or virtual classrooms designed to provide connectivity and access to, as well as training in, information and communication Technologies (ICT) to students from low-income households.
- In compliance with Article 94 of Law 139-01 and to promote competitiveness through the funding of activities, programmes and projects for innovation and scientific development, the SEESCyT began to receive project proposals for scientific research and technological development projects in 2005 by establishing the

National Fund for Innovation and Scientific and Technological Development (FONDOCyT). During the three years of its existence, 43 projects have been financed in the areas of biotechnology, basic sciences, energy, environment and health, for a total of DOP 1.74 million. With the FONDOCyT, it is intended to establish a system of permanent promotion of scientific and technological research.

Advances and drawbacks in Vocational Education

The training of professionals in the Dominican Republic has been developed by a group of public and private institutions. According to estimates, INFOTEP covers about 30% of the national demand for technical training. The National System of Technical Professional Training must be empowered to provide productive jobs, through strategic alliances that will reduce the existing gaps between demand and supply of training and formation.

Relationship between the productive system and professional training

The relationship between the productive sector and the professional training centres should guarantee a better match with the demands of the work force. According to the research results obtained,[11] the most efficient institution for professional formation in the country is INFOTEP.

The needs for training and the formation of professionals were determined by INFOTEP through the Consultation Committee, the Technical Commission, and Business Evaluation Commission, intergraded entities with representatives from the Chamber of Commerce and Production, provincial development institutions, technicians and professionals that serve as liaisons between the productive sector and the professional formation centres, by means of market investigations and needs assessment studies.

INFOTEP participants

Between 1984 and 2004, INFOTEP has trained 1 686 731 people, as shown in the following table:

In terms of methodology and technical development, the instructors taught 1 290 courses during 115 666 hours to 21 775 participants.

[11] ENDECA, 2003.

Table 3.26 **Training needs and number of participants 1984-2004**

Types of training	No. of Participants
Complementary	420 745
Permanent training	830 982
skills	428 476
Dual training	4 083
Continual training at centres	1 304
Technical teacher formation	544
Occupational certification	597
Total	1 686 731

Source: Department of Labour Markets Investigation & Statistics, INFOTEP, 2005.

The demand for professional training according to occupations

Training demands vary according to the economic sector; such as industrial manufacturing, the Free Zone (which was the group most in need of training), and the hotel sector, bars and restaurants, as well as service workers. According to the business people interviewed in the National Survey of Demand and Training (ENDECA 2003), the occupational groups that required the greatest performance assistance are shown in Table 3.28.

Table 3.27 **Training needs according to group occupation July 2005**

Group Occupation	Percentage
Office workers	19.8%
Managers & administrators	15.0%
Service workers	14.2%
Mid-level technicians	12.4%
Operators & conductors	12.1%
Non-qualified workers	9.9%
Operators and craftsmen	8.8%
Professionals & intellectuals	7.8%

Source: National Survey of Training Demand (ENDECA 2003).

The Free Zone sector shows the greatest needs, with 38.6% of the total of the workers. After this comes the wholesale and retail trade, with 17%;

the manufacturing industries with 13.6%; the hotel management sector with 10.5%; other services with 9.6%. Financial mediation and insurance showed 7%; transport and communications 3%, and the area with the least need of training is the construction industry, with just 0.5%.

The largest group of workers to train, according to ENDECA 2003, are the operators and drivers group with 37%; then follow service workers with 16%; operators and craftsmen, 13%; office workers 12%, intermediate level technicians with 9%; non-qualified workers 8%; professionals and intellectuals 3%; and managers and administrators with 2%.

During March and April 2005 the National Institute of Public Management (INAP – *Instituto Nacional de Administración Pública*) carried out a national survey of public servants' training needs. The study sampled a thousand public employees throughout the country and showed that public employees want training in computing, public management, personal improvement, efficiency and effectiveness, as well as the need to speak English. However, in order of preference, INFOTEP training actually delivered between January and May 2005 covered computing, automotive mechanics, beauty and hairdressing, telecommunications, instructor training, decoration and interior design, electronics, accounting, and bartending and service.

Gender equality in professional technical formation

INFOTEP – as the agency regulating technical training in the Dominican Republic – must contribute to the social advancement of workers, and diminish the levels of social exclusion. Since its creation, INFOTEP has taken an open, participative approach; although 52.4% of the graduates are males, data show a steady annual an increase in the rate of female participation (from 31.2% in 1982 to 52.5% in 2004). Although this shows that female participation in the labour market has increased over time, more attention must be paid to ensuring that women also have access to the more highly-demanded and better-paid professional areas.

Therefore, INFOTEP maintains a policy of affirmative action in favour of equal opportunities for women in the labour force, especially women trained in non-traditional fields; it also promotes agreements of technical co-operation with several national and international institutions – such as the IBD, World Mission, Kellogg Foundation, etc. – in the implementation of projects that generate self-employment, in particular for women.

Training through competition

INFOTEP is developing a Training Certification Project, under the labour regulations, in order to respond to requests for training from various economic sectors of the Dominican Republic. Training using a "competitive" approach allows the participant to develop the necessary knowledge, abilities, aptitudes and attitudes to function effectively in specific work situations. This type of training is being provided first in the area of educational training, hotel management, industrial sewing, electrical installation and maintenance, electronic maintenance, preparatory automotive and industrial mechanics.

Education budget and financing

The Dominican Republic faces a situation of a structural character that imposes very rigid limits on the possibilities for increasing the public resources for the social area. The increasing dependency on external resources in the national budget is also reflected in the financing of the social expenditures. The heavy load of debt servicing has, and will have, a negative impact on the government budget during this decade. Against this background, the possibilities of greater resources for the social sectors will depend on the identification of new sources (new taxes) and to prioritisation of the social expenditures within the expenditures of the government.

Greater investment in the priority social sectors (health, education and social security) will have a positive effect, and result in greater synergy between the social investment and the sustained economic growth in the country in the medium term.

Commitments of the countries exist to fulfill the Millennium Development Goals of the United Nations and of Education for All, which demand policies and strategies of mobilisation of financial resources for the development of the education and the suitable programming and budgetary execution.

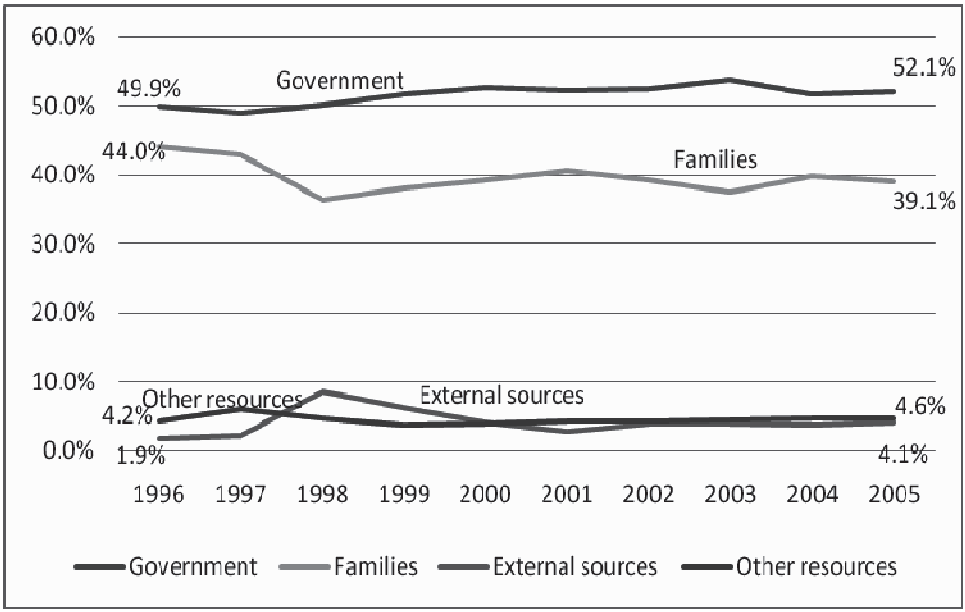
Main sources of financing of education

The Dominican education system is financed mainly with resources of the central government, 52%, families, 39%, and the remaining sources come from external loans, donations, resources and contributions of private companies (see graph of financial structure, 2005)

The financial statistics of the Dominican education reveal that the contributions of families have diminished significantly, as of year 2000, the

contribution of the year 2005 being similar to year 2000. Similarly, the government diminished significantly its financing, as of the 2003, by effect of the economic crisis that forced budgetary adjustments to be made that affected the social expenditures for education. The other sources of financing such as external resources and from other private institutions had an important effect that compensated in some years for the reduction of the contributions of the government and the families (see figure 3.3).

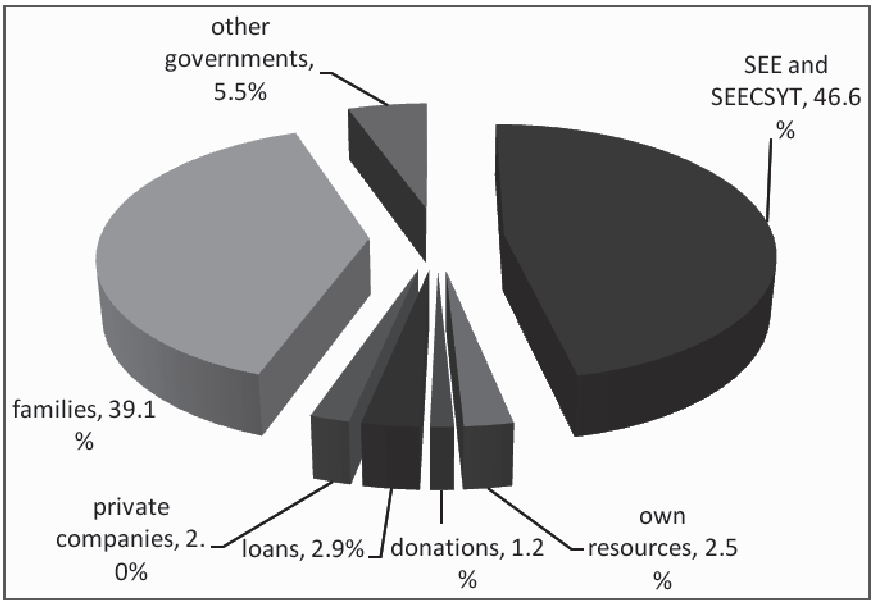
Figure 3.3 **Evolution of the financing structure**



Source: Statistics department, SEE.

The indicators of coverage and internal efficiency of the Dominican education system demonstrate that it has advanced very little in improving the quality of the education, correcting inefficiencies and elevating the coverage in initial and secondary education, because of the low level of resources that have invested by the government and the family. In the case of the government, the percentage to finance education increased only 2.2% from 1996 to the 2005 (it increased from 49.9% to 52.1%), whereas families decreased their participation from 44% to 39.1%, a loss of 4.9 percentage points in the same period, which partly has been covered with external resources (loans and donations) and contributions with private institutions.

Figure 3.4 **Financing system of education in 2005**



Source: Statistics department, SEE.

Percentage of the GDP designated for Education

Percentage for public education

Analysis of the percentage of GDP and of the public budget designated for education, as well as budgetary execution, demonstrate the level of attention given to the educational needs of the population and to the priority assigned by the government the development of the country.

Between 1996 and 2002, public expenditure on education as a percentage of GDP increased from the 1.9% to 2.9%. This tendency was more accentuated in the period 1997-1999,[12] constant in 2000-2001, and increased significantly in 2002, although it did not reach the percentage that must be achieved according to the Law of Education 66-97.[13] In the years

[12] The *Ley General de Educación (66-97)*, adopted in 1977, establishes that 4% of GDP from the government or 16% from the budget would be designated for education, depending on which one is the highest.

[13] Idem.

prior to 1997 the proportion of GDP dedicated to public education was below 2% (see picture of relationship of expenditure for education to GDP).

Table 3.28 **Relation between expenditure in education and GDP in millions of DOP**

	1	2	3	4	5	Percentage (%)			
Yearrs	Total Budget expenditure	Total expenditure Educación	Total expenditure SEESCYT	Total expenditure SEE	GDP	Total expend. Educ. / Central budg expend (2/1*100)	Total expend SEE / Central budg expend (4/1*100)	Expend. SEESCYT / Central budget expendit. (3/ 1*100)	Total expend. Educ. / GDP (2/5*100)
	&		^	&	+				
1990	7,172	535	0	535	-	7.5	7.5	0.0	-
1991	10,186	936	414	522	123,426	9.2	5.1	4.1	0.8
1995	22,838	3,019	665	2,354	211,025	13.2	10.3	2.9	1.4
1997	34,540	4,778	1,117	3,661	274,424	13.8	10.6	3.2	1.7
1998	39,120	6,083	678	5,405	311,283	15.5	13.8	1.7	2.0
1999	46,280	7,545	564	6,981	343,745	16.3	15.1	1.2	2.2
2002	73,850	10,335	1,184	9,151	463,624	14.0	12.4	1.6	2.2
2003	93,650	10,670	1,186	9,484	617,989	11.4	10.1	1.3	1.7
2004	142,062	13,270	1,545	11,725	909,037	9.3	8.3	1.1	1.5
2005	188,833	17,488	2,135	15,353	1,020,002	9.3	8.1	1.1	1.7
2006	258,277	20,625	2,711	17,914	1,189,802	8.0	6.9	1.0	1.7

Source: ONAPRES.

Notes :

&: Data obtained from the analysis presented by SEE

^: Data obtained from internal files of SEESCYT and SIGEF

+: Data obtained from the Banco Central of the Dominican Republic

The high proportion of GDP allocated to the financing of public education in 2002 was reflected in a greater proportion of expenditure on education within the total cost of the central government (nearly 16%), and in a real increase of public expenditure for education of 11.7%.

The economic crisis of 2003 severely hit public financing, with levels reverting to those of 1996 when public expenditure for education was almost

2.0% of GDP, a loss of 0.9 percentage points compared with 2002. Public investment in education decreased from 16% in 2002 to 10.6% of the government budget. As a result, the real expenditure on education in 2003, compared to 2001, decreased by 34%. In 2004-2005, because of the aforementioned crisis, the percentage continued decreasing to 1.5% and 1.9% with respect to GDP, respectively, erasing the gains made between 1997 and 2002. In those years, the government had to make adjustments in the fiscal accounts to adapt expenses to income that had decreased significantly.

Percentage of GDP designated for general education

The expenditure on general education (public, private and other expenses) has remained below that of other countries with characteristics similar to the Dominican Republic. During the period 1995-2005, this expenditure as percentage of the GDP only reached the greater level (5%) in 2002, when the government made greater investments in education (2.9% of the GDP) and families, external resources and other contributions were 2.1%. These results demonstrate that the investment in education is driven mainly by the government and that insofar as the percentage that the government must invest in education (4% of GDP) is fulfilled according to established Law 66-97, the effort of the private sector and external contributions could be increased and contribute to elevate the quality of the education, to help correct the deficiencies that exist in the Dominican education system.

In the series analyzed, it was demonstrated that in the years 1997-2002, higher percentages of GDP were spent on general education, due to the effort that the government made to invest in the sector. In these years the public investment of the government in education remained high with a percentage that oscillated between 2.2% to 2.9%. Nevertheless, as of 2003, because of the aforementioned crisis, the percentage of the expenditure of the government with respect to GDP decreased drastically, being compensated partly by the increase of the expenditure of families, external resources (loans and donations) and private contributions to Dominican education that maintained percentages similar to the years mentioned earlier, but always below those of 2002 (see picture of relation of education expenditure with GDP).

Those countries that make great investments in education are also those that have managed to overcome the under-development and delayed growth of most nations of the Latin American region and the Caribbean. There are Asian and some American countries like Chile and Costa Rica that invested

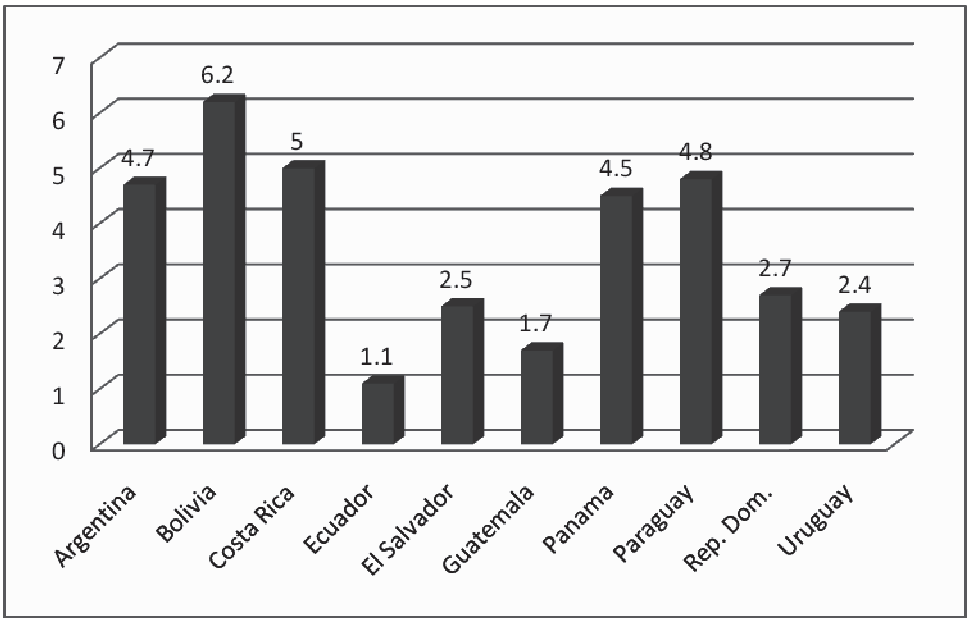
and continue to allocate a large proportion of the budget to education ,thereby gaining a privileged position in the global marketplace.

Comparison with other countries of the region and Central America.

From the main UNESCO project of education in Latin America and the Caribbean in 1980, the respective governments were committed to assign to the sector of education resources of nearly 7% of GDP; nevertheless, when assessing this project in 2000, it was shown that very few countries of the region arrived at the levels of recommended expenditure. The others - as is the case of the Dominican Republic, are still a long way from reaching this goal. Equally, countries are committed to the UN Millennium Development Goals, and to Education for All; these commitments demand policies and strategies of mobilization of financial resources for the development of education and suitable programming and budgetary execution.

Within the countries of Latin America and the Caribbean, the Dominican Republic has one of the lowest percentages of Public Expenditure in Education as a proportion of GDP.

Figure 3.5 **Public expenditure in education in % of GDP in 2001**



Source: Report *Seguimiento* EPT, UNESCO, 2005.

According to the Institute of Statistics of UNESCO, in its report on progress towards Education for All 2005, the Dominican Republic only surpasses to Ecuador and Guatemala in the percentage of expenditure of the government in education in relation to GDP. In effect, for year 2001, Ecuador has a percentage of 1.1% and Guatemala 1.7%, whereas other countries such as El Salvador and Uruguay have percentages similar to the Dominican Republic (2.5% of GDP).

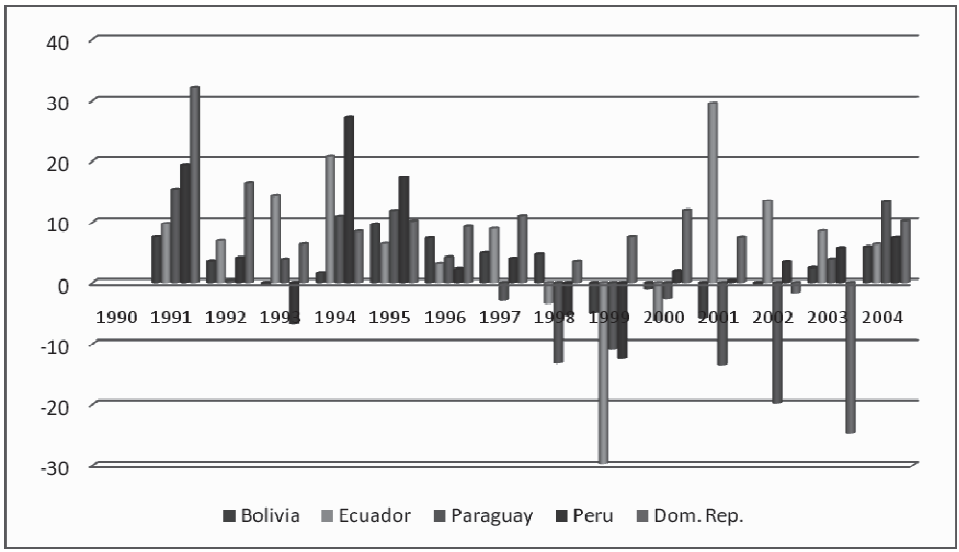
Of the countries of Central America that assign more resources to education are: Costa Rica (5%) and Panama (4.5%). Other South American and Andean countries have percentages that oscillate between 3.5% and 6.2%, respectively.

In Argentina, total public expenditure on education represents 4.7% of GDP; 6.2% in Bolivia and 3.5% in Peru, whereas other countries such as Uruguay and Paraguay assign amounts of public expenditure equivalent to 2.4% and 4.8% of GDP, respectively.

This situation becomes very critical taking into account that as of the year 2001, the public expenditure average in education of Latin America was 4.7% of GDP. Among 26 countries of the region, the Dominican Republic occupied position 24, very near the lowest level of financing for education in Latin America. With the recent economic crisis and the drastic reduction of the financing of education, the Dominican Republic could be one of the countries with the lowest level of resources dedicated to education in all the region.

On the other hand, there is no clear correlation between the financing of education n and GDP per capita, which indicates that the education priority of countries does not necessarily depend on GDP per capita. In fact, countries like Paraguay, El Salvador, Peru, Bolivia, Jamaica, among others, have a level of expenditure in education as a percentage of GDP that in some cases is double that of the Dominican Republic, even though the GDP per capita of those countries is much lower.

Figure 3.6 **Comparison of GDP per capita in USD by country**



Source: *Memoria Anual e Informe de la Economía Dominicana*, Central Bank of the Dominican Republic, 1990-2004.

Budgetary execution by level

Financing of public education in the Dominican Republic tends to concentrate mainly on basic education. In the 2005 budget, around 54% of the resources of the budget in education were concentrated in basic education; whereas middle-level education and higher education received only 12% and 11%, respectively. Initial (preschool) education is the level in which the least resources are invested, which explains the low coverage at that level, as well as at the middle-level education.

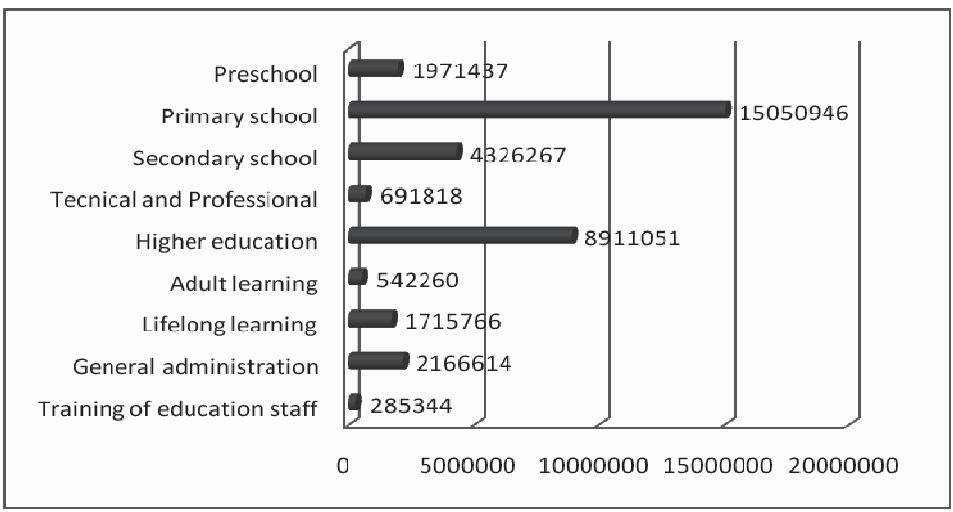
The magnitude and source of financing of the education sector is based on the Law 66-97, which establishes that the public expenditure in education must reach, as of year 1997, a minimum of 16% of the total expenditure of the Central Government or 4% of GDP, whichever is greater. Similarly, the composition of the expenditure had to maintain a ratio of not more that 80% for current expenses and 20% for capital expenses.

General investment by education levels

In general the investment by levels of education in the Dominican Republic is very low, especially at the Initial level, Middle level, General and Professional Technical, which — in the analyzed series 1996-2005 — do not obtain 20% of the total investment in general education (see Fig. 3.7). Nevertheless, when we relate the investment made in each level to the number of students of that same level, in 2005, it is clear that the costs per registered student are lower at the levels Initial and Middle Level General, since the Professional Technical education has the highest cost per students registered by the smaller amount of students than it has with respect to the indicated levels.

These results demonstrate the great deficiencies that exist in the Dominican education system, and the unequal allocation by education levels regardless of national priorities, because it dedicates more resources to the basic education and higher education levels (nearly 67% of the total investment), and penalizes the Initial and General Middle-Level that constitute the basis for a sound foundation in the first years and in the education of the pre-college student (see Figure 3.7).

Figure 3.7 **Investment by education levels, year 2005**



Source: *Secretaría de Estado de Educación* (SEE); *Secretaría de Estado de Educación Superior, Ciencia y Tecnología,* (SEESCyT); *Instituto Nacional de Formación Profesional* (INFOTEP); Central Bank of the Dominican Republic, survey of income and expenses, 1998.

Investment in Higher Education

Up to 2001 the funds assigned to the National Education Council of that time (CONES) came from the Administrative Secretariat of the Presidency as a subsidy. Since the promulgation of Law 139-01, the funds for the newly created State Secretariat for Higher Education, Science and Technology are included in the programme of the National Budget which allocated an initial amount of 1.6% of the 2002 budget. This percentage of participation decreased for 2003-2006, although increases in absolute terms were registered of 0.2% for 2003, 23.24% for 2004, 27.64% for 2005 and 21.25% for 2006.

The annual budget of the SEESCyT includes the allotment granted by the government to the public and private institutes of higher education, in particular UASD, which absorb two thirds of the budget, the remaining third being for the operations of the Secretariat.

External resources, debt service and investment in education

In previous years, the component of external resources (indebtedness and donations) within the investment in education has been increased gradually representing in some years (1998) almost 9.0% of the total financing of the education. This dependency combined with the low percentage that the government contributes to public education are the elements that constitute the lagging behind of the in the Dominican education system.

In the last five years, the growth of the external debt has been of great magnitude, making the commitment of payment of service and capital a heavy burden that weighs on the national budget and hits in a direct way the possibilities of investment in the main social sectors, mainly in the education. In 2006, the Dominican Republic paid USD 1 0564 million on amortisation and interest of external debt, and RD$ 11 928 million on internal debt, which altogether represent around 20% of the budget of central government and 5% of GDP.

As of December 2004, the amount of the national debt increased to USD 6 400 million, 34.2% of GDP, while the service of the debt reached around 5% of GDP, a percentage that altogether surpasses the resources assigned by the government to the sectors of health and education, which represented only 3.6% of this aggregate (2.1 and 1.5%, respectively).

Chapter 4. Economic Impact and Education Reforms

This chapter analyses the progress of the Dominican economy and its impact on the development of education. It details political initiatives to modernise and improve the efficiency of the education system in order to meet the demands of a constantly growing services economy. Information is provided on educational reform and teacher training initiatives as well as the far-reaching training programme in education planning which is currently being implemented. The final section of the chapter deals with the goals of the Presidential Forum on Excellence in Education which was established as a means to debate educational issues through participative mechanisms.

Economic development and education reforms

Between 1970 and 2005, the Dominican economy – like other economies of the region – adopted various growth models that had a significant impact on the links between economic, social and school reforms. In the 1970s, structural changes in the economy were rather erratic; this affected the national education system, in particular higher education. The concept of development was, at that time, based on investments in physical capital as a key variable of economic growth and development, overshadowing expenditures on human capital.

During the first years of the decade — in order to support the improvement of quality in Middle and Basic education — the Dominican Republic launched a number of praiseworthy initiatives to improve the training of teachers, putting emphasis on the Middle level. This was one of the main strategies aimed at reforming the Middle level, as well as Professional Technical education.

Within the framework of this reform, and in answer to the Decree 1-70, the Inter-University Plan was implemented, designed to train professors in

the main universities of the country in the areas of natural sciences, mathematics, social sciences and Spanish.

On the other hand, the dynamics of the population registered a high increase in urban density which weighed significantly on the demand for new education services and explains basically, as of 1970, the phenomenon of expansion of education in general, specifically of the Higher Education.[14]

These population dynamics strongly affected the education demand at all levels, and especially the growth of the higher education sector.

In 1950 and 1960, the country had a single institution of Higher Education, the University of Santo Domingo, today the Autonomous University of Santo Domingo, with a matriculation of 1 987 students in 1950 and 3 729 students in 1960, reaching in 1970 a matriculation of 17 878 students, for a population of 4 009 500 inhabitants, of whom 499 383 were varying in age between 18 and 24 years. This amounts to a gross coverage of 3.6%.[15]

During the 1980s, the country's economy was increasingly based on services, a trend that was consolidated during the 1990s, a time of growing globalisation and an open market. During that decade, the continuing population growth led to a deterioration in socio-economic conditions which in turn required urgent education reforms. The education system could not provide the human resources needed for economic growth; coverage of the primary and secondary levels was insufficient; and the traditional higher education programmes were not suited to the demand for new job skills. The Free Zones and the tourism sectors required a different type of national education, as well as expansion of coverage and a review of vocational and professional training. As a result, the system became more complex in its structure and more dynamic in terms of educational reforms.

Also during the 1990s, the level of foreign credit for the education system rose significantly, both from the Inter- American Development Bank (IDB) and the World Bank, along with an increase in bilateral technical and financial co-operation aimed at reforms in pre-primary and primary education, and (to a lesser extent) in secondary and higher education. The

[14] The population grew from 3 047 070 inhabitants in 1960, with a density of 63 inhabitants/km2, to 4 009 438 in 1970, with a density of 83 inhabitants/km^2.

[15] The trend that shows an increase in the number of institutions of higher education, as well as of its gross student coverage, continued during 2004 and the first part of 2005, with a total of 44 IES (institutes of higher education). Among these, 36 institutions in 2004 reported information on 315 007 students to the SEESCyT. In the first part of 2005, 38 institutions had sent information on 316 084 students.

most important educational milestones were the Ten-Year Education Plan (1992), the World Conference on Education for All (Jomtien, 1990), various summits of heads of states, education ministers and university presidents, and finally the Dakar Conference on the Evaluation of the Results of Education Reforms (2000). These events led to a growing awareness of the need for the improvement of coverage and quality of learning in the Dominican Republic.

However, in spite of significant progress during the first half of the 1990s in terms of coverage in pre-primary, primary, secondary, and vocational education, the country was unable to meet the demands of an ever growing services economy requiring more relevant education reforms and a greater share of social expenditure for the education sector.

During the 1996-2000 period, there was a strong political will to promote the modernisation and efficiency of Dominican education at all levels, with special emphasis on pre-primary, primary and secondary schooling. Energetic foreign policy was aimed at strengthening international links. The country reached macroeconomic stability, and – for the first time in history – a growth rate of 8%. These factors generated noticeable growth in the business sector, restoring and strengthening the confidence of the international community, which led to significant foreign investments supporting, in particular, the development of pre-primary, primary secondary and higher education.[16]

Despite these improvements, the country entered the new millennium with a long-standing deficit, and facing a number of challenges that will persist for some years. New fields of knowledge such as computer science, telematics, robotics, mechatronics and biotechnology, among others, are bringing about a new economy based on information and knowledge. Although there is a growing national awareness and public debate about the need for reform of the education sector (and of higher education in particular), curricula remain traditional; the needs of a new job market and new scientific and technological fields will need to be met, if the country is to be internationally competitive.

The phenomenal growth of higher learning institutions nationwide, in particular during the 1978-1982, 1982-I986, and 1986-1996 Presidential mandates, has already been mentioned. Between 1966 and 1996, 19 institutions of higher learning were established; by contrast, between the

[16] During this period, there was considerable assistance from the international community, *i.e.* the IDB, the World Bank, the United Nations, the European Commission within the framework of the Lomé Agreement, and USAID, along with bilateral support from a number of countries including Spain, Japan, Germany and Chinese Taipei.

years 1996 and 2000, only two more higher education institutions were created. During each of these terms of government, it appears that the number of institutions created and their rapid growth were in response to *political* agendas, rather than to the need for economic development of the country. Indeed, the increase in the number of institutions of higher learning did not lead to significant progress in terms of its academic diversity and quality, nor of its relevance to the open-market economy model adopted by the Dominican Republic.

It would be fair, however, to recognise that the Dominican State and its society have shown keen interest in tackling higher education issues, for example through the creation (1983) of the National Higher Education Board *(Consejo Nacional de Educación Superior,* CONES) and of the Ministry of Higher Education, Science and Technology in 2001.

Education reform and teacher training

The first initiative in the area of teacher training in the country was taken by Eugenio María de Hostos with the establishment, in 1880, of the "*Escuela Normal para Varones*" intended for the training of male students. Inspired by this school, another institution "*Instituto de Señoritas*" headed by Salomé Ureña was created in 1882 to provide teacher training to female students. Teacher college programmes were established in response to the socio-economic and cultural demands of the time and as a means to go beyond traditional schooling.

The capacity of the State to train teachers could not satisfy the demand of the education system. It therefore became necessary to "incorporate" outstanding secondary education graduates and students, to meet the shortage of trained teachers. In most cases, such "incorporation" was through competitive tests based on students' merits. Nevertheless, shortages of trained teachers, and a lack of professional development (in-service training) remained a persistent feature of Dominican education.

Although normal schools or teacher colleges (teacher education and training centres) had been set up all over the country to serve the needs of various regions, certified teachers preferred to work in urban areas with better socio-economic conditions. Uneven provision of qualified teachers meant that educational coverage and quality suffered in some rural areas.

In the 1970s, State funded training programmes for primary school teachers, and literacy campaigns for the border population and for people living in mountain areas, were implemented. However, more fundamental reform of the education system clearly required a new breed of teachers; new approaches to initial training and in-service development were needed.

The normal schools that typically provide training to urban and rural primary and secondary teachers were focused mainly on standardised programmes for all teaching personnel at the *primary* level, placing teacher education for the *secondary* level under the responsibility of the universities, along with the normal schools.

The reform of secondary education, pursuant to Ordinance 1/70, put an end to the diversification process initiated earlier. University level teacher training programmes for secondary schools were unified through an inter-university agreement on March 31, 1973.

During the 1980s, a number of actions related to both in-service training and refresher courses were undertaken, such as the "Plan Sierra" designed to provide in-service teacher training, and the *Plan Integrado de Desarrollo Educativo* (PIDE), an integrated educational development plan aimed to provide in-service training and refresher courses. The in-service training programmes were intended to provide teachers with basic pedagogical tools that were in line with modern practices.

In response to the 1990 "Education for All" conference in Jomtien, Thailand, a broad range of civil society representatives took part in discussions that led to the formulation of what is known as the Ten-Year Education Plan, aimed at transforming the DR education system in the most significant reform process that ever took place in the country. An important component of the Plan refers to teacher training.

Within the framework of the Plan, priority has been given to teacher training and refresher programmes establishing "a system of training and refresher courses on methodology and adequate technology geared toward the implementation and use of education-related multimedia tools and fostering creativity in the students" (extract from *Plan Decenal de Educación*, 1992, p. 76). Education Law 66-97 reiterates this commitment by making it compulsory for the State to ensure that teachers will have access to university-level training.

As part of the same Plan, a programme was set up in 1992 to improve primary education through a project called *Proyecto de Desarrollo de Educación Primaria* (PRODEP) which provided university-level training and refresher programmes to teachers, with a minimum duration of 2 years. Another programme, "In-Service Professionalisation of Secondary Teachers" (*Profesionalización de Maestros de Bachilleres en Servicio* (PPMB), was intended for secondary teachers, while the FIMEB *(Formación Inicial de Maestros de Educación Básica)* programme aimed to provide primary school teachers with initial training. Other Master's programmes in education supervision are run jointly by Dominican and Canadian universities. A Doctorate component will be added. Parallel to the

Ten-Year Plan, a far-reaching training programme in education planning is being carried out.

The main policies being implemented under the Ten-Year Plan are the following:

- Conversion of Normal Schools into university-level teacher training colleges, and the creation of a central structure – as well as regional campuses – to diversify academic provision.
- Enhanced participation of the universities in teacher training programmes, as well as in continuing education.
- Expansion of scholarship programmes for teacher education and training, as well as scholarships for attending refresher courses.
- Postgraduate programmes intended for administrative and technical personnel.
- Development of a new training curriculum.
- A Bachelor's degree as a requirement to enter the teaching profession.

As a result, teachers' abilities for self-development, self-confidence and self-esteem were enhanced, along with a new awareness of their role in society, their motivation to further develop their knowledge, and to improve the efficiency of their teaching and administrative duties. There is also a more democratic relationship between teachers and students, greater use of active teaching and learning methods, participation of both teachers and students in school management, improvement of the academic quality of the teaching staff, as well as a more sustained and meaningful relationship between various training institutions.

Presidential Forum on Education Excellence

President Leonel Fernández has established a Forum on Education Excellence, calling for the mobilisation of the community and the learning institutions to debate educational issues through participative mechanisms. The aim is to identify and give priority to problems requiring short-, medium-, and long-term solutions. The Forum also promotes national debate about essential education problems, far beyond day-to-day issues such as schools and institutions, class hours and days, calendars, academic periods, curricula, or education modes. The Forum provides a way to promote excellence in education programmes, aiming at providing Dominican

society with a high-quality education system that is in line with international standards and advances equity, fairness and social solidarity.

Roundtables and other participative activities of the Forum were conducted at the municipal, provincial, regional and national levels in order to promote empowerment and awareness among the populations. SEE, SEESCyT and INFOTEP have organised their own consultations, either open or specialised, in every setting throughout the country. In this context, the Department of Higher Education has already sponsored a first round of events related to the links between higher education and the DR-CAFTA treaty.

During the second phase, SEESCyT conducted an intensive process of consultations and national and regional meetings, in order to generate proposals related to the following themes: i) *Higher Education, Science and Technology: Present Status and Prospects in the Context of Globalisation, the Knowledge Society, and DR-CAFTA.* ii) *The Use of Information and Communication Technology in Higher Education: Present Status and Prospects;* iii) *Higher Education Values: Truth in Education: Present Status and Prospects;* iv) *Higher Education Management: Present Status and Prospects*

As a fundamental conclusion, the Forum approved the elaboration of a Ten Year Education Plan that includes the Ten Year Plans of each subsector. This Plan is being elaborated with the participation of the different stakeholders in each institution, civil society and the production and the service sectors.

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Chapter 5. Progress Toward Gender Equality in the Dominican Education System.

Chapter 5 stresses the importance of gender equality and analyses the progress made toward this goal in the Dominican Republic. An important advance made recently is that statistical data on education is now disaggregated by gender. This action undertaken by the Department of Education indicates a willingness to tackle outstanding issues relating to gender equality. The chapter also outlines some key indicators on the current level of gender parity.

Gender parity must be part of Dominican education policy, if we are to move away from long-held socio-cultural stereotypes with regard to education, the teaching and learning process, and social inequities between men and women.

Consequences of these stereotypes still pervade society, through discrimination against and subordination of women and girls. The growth potential of women, and the exercise of their rights as full-fledged individuals, are still limited. Illiteracy, drop-out, repetition, over-age and absenteeism affect boys as well as girls, but they have a stronger impact on girls, who are more likely to be needed at home to help with household chores.

The Department of Education, aware that education plays a major role in the promotion of social and human development, and, in an effort to counteract factors leading to inequality, is reviewing the curriculum from a gender perspective in order to change conventional views and power relations. At the inception of the Ten-Year Plan, priority was given to this issue, and the first department dealing with the gender perspective was created.

The activities of the "Gender Committee" aim to close gender gaps and inequalities in the Dominican Republic. To contextualise these activities,

and assess their potential to eradicate gender inequity in the country, the following issues are highlighted.

In terms of participation in education, there are no significant differences between males and females by quintile of income. The most significant inequalities are those between urban and rural sectors, and between poor people in urban areas and the rest of the population in these same areas. According to the IDB (2003),[17] while 25% of all household heads in the rural zones never attended primary education, the same was true of only 11% of their urban counterparts. There are also striking contrasts within the urban population, where 23% of household heads in the poorest quintile never attended primary, compared to 3.8% of household heads in the richest quintile. In terms of gender, the proportion of uneducated women is still high in the country, standing at 10.3%, while for men the percentage is 9.3%. Illiteracy among females aged 15 years or older was 12.2%. On the national and rural levels, the gender gap is favourable to women in the 20-24 year-old group; there is also a lead in the 15 - 9 age cohort, while in urban areas only in the group aged 20 - 24 there is progress towards equality.[18]

According to UNESCO,[19] in 1999, 75.1% of all children completed primary schooling, with a higher percentage for girls, who accounted for 79.1% vs. 71.4% for boys. ENDESA 2003[20] reveals that 85.6% of children of both sexes were attending primary education, with the girls accounting for a higher proportion (87.4%). SEE indicators on national enrolment between 1996 and 2002 show that at the primary level the ratio of males to females was 0.97 for the 1996-1997 period falling to 0.94 in 2005-2006. Overall, the number of girls enrolled in primary education each year is slightly lower than that of boys. By contrast, at the secondary level the ratio of boys to girls stood at 1.24 during the same period, while in higher education it was 1.68 in 2002-2003, in other words 168 girls for every 100 boys.

The Department of Education (SEE) oversees 75% of all primary education centres; the private sector and other primary institutions receiving

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17 Centro de Estudios Sociales y Demográficos, 2003*, Encuesta Demográfica y de Salud, 2003*

18 United Nations System in the Dominican Republic, 2004, The Millennium Development Goals, 2004.

19 United Nations Educational, Scientific and Cultural Organisation, 2003, *Gender and Education for All: The Leap to Equality.*

20 Centro de Estudios Sociales y Demográficos, 2003, *Encuesta Demográfica y de Salud*, 2003

private subsidies account for 25%. 58% of primary schools are in rural areas and 42% in urban areas.

One of the key gender-related actions undertaken by the Department of Education refers to statistical data, which now are disaggregated by gender. However, although there is a growing awareness of gender issues among the Department staff, some indicators remain unclear.

Over the last decades, the educational level of the Dominican population registered an upward trend, reflected in a decline of illiteracy, which fell from 33% in 1970 to 10.8% in 2006.

The illiteracy rate among the population aged 15 years or older in the Dominican Republic is 12.7%, according to the ENDESA-2002 census on demography and health, indicating differences in illiteracy levels by place of residence. In rural areas, the illiteracy rate is double that of urban areas. Differences by gender are also registered, the level of illiteracy among women being slightly lower than among men.

In terms of levels of education, women have consolidated the trend which began in the 1980s. The census on population and health revealed that women participate more than men in the Dominican education system, especially in secondary and higher education, both in urban and rural areas. This trend remains unchanged, showing higher enrolment rates for men and women alike.

Regarding instruction related data, there are some differences between urban and rural areas when it comes to the population aged 6 years or older who did not attend school. In the rural areas, the percentage of people with no schooling is six times higher than in urban areas. These figures also highlight the difference by gender, showing a higher percentage of men with no schooling whatsoever, in both rural and urban areas.

The net rates of school attendance indicate that nearly 15% of the 6-13 age group did not attend primary education during the school year 2001-2002. The attendance rate is higher for girls, accounting for 87% *vs.* 84% for boys.

Thirty-five percent of the 14-17 year-old population attended secondary education during the 2001-2002 period. Female attendance (40%) was significantly higher than that of males, which accounted for only 29%. High repetition and drop-out rates affect the overall efficiency of the school system. The repetition rates in the first grade of primary education stand at around 4.0%; from grade 2 to 4, around 6 to 9% of the students repeat a year, during the years 2004-2005. The figures are slightly higher for boys than for girls, and they are also higher in rural areas than in urban ones.

Broadly speaking, drop-out, unlike repetition, increases as the cohort progresses from the first to the grade eight of primary schooling. Drop-out affects more boys than girls. The drop-out rate for grades 7 and 8 is higher in rural areas.

Chapter 6. Conclusions and Challenges in the Development of Dominican Education

Chapter 6 draws conclusions and gives details of the essential challenges faced by policymakers in working to continue the development of the Dominican education system.

Conclusions and challenges are viewed from the following perspectives:

a) A participative approach to national policy.

b) Strengthening of demographic information systems, and better training opportunities for the labour force.

c) Adoption of policies and measures geared toward economic development and enhanced possibilities to increase expenditure on education.

d) Improvement and strengthening of the entities that form the Dominican school system, in order to raise its efficacy and efficiency, and contribute to the achievement of its institutional and programmatic goals.

e) Expansion of access and coverage in pre-primary, primary and secondary education, aimed at raising quality levels, ensuring equality, and achieving education and literacy goals.

f) Further expansion of coverage and improvement of quality in higher education, in the priority fields of study and programmes that support national development.

g) Expansion of vocational education offers to respond to the needs of socio-economic development and to contribute to quality vocational and professional training.

h) Comprehensive reform of the Dominican education system to meet the challenges of the National Education Plan.

a) Design of the National Education Project: a participative approach to national policy

Education has always been a major concern in the country. But the present structures do not, generally speaking, fit well with the nation's development or with the changing national and international needs. As in most Latin American countries, education in the Dominican Republic has always been subject to the ups and downs of the national and world economy on one hand, and of political ideologies on the other hand. This produces a lack of continuity, with each new administration discarding the decisions and reforms of the previous one.

The educational reforms have not been systematic or comprehensive, but specific to different sectors and levels, which hindered their success and – more often than not – generated more entropy than efficacy and efficiency. The aim was to create a sound and adequate institutional infrastructure for education at all levels, but given the system's insularity and isolation there is a lack of co-ordination and a great deal of wasted effort. Although a number of participative experiments were carried out involving government, entrepreneurs, and civil society in order to formulate the country's instructional programmes, they have not, so far, led to a coherent political culture. However, over the last decade some progress has been made towards better orientation and decision-making, aimed at improving the development of the system and the quality of instruction.

In its design and implementation, the Ten-Year Plan approved in 1992 focussed on participation. It was a major event in terms of the goals of schooling, literacy, and improvement of quality, in line with commitments in the Major Education Project for Latin America and the Caribbean. In that sense, significant progress has been made towards raising the education level of the population, modernising the system, introducing new technology, strengthening vocational education, and fostering participation of stakeholders as well as establishing closer links between the school and the community.

The main challenges are to ensure that education contributes to the achievement of key goals of the Plan, first and foremost "to eradicate extreme poverty and hunger", as well as "to promote gender equality and empower women".

Therefore, actions should now be undertaken to achieve the six goals of Education for All: i) expanding and improving comprehensive early childhood care; ii) ensuring that, by 2015, boys and girls alike will have access to and complete free and compulsory primary education of good quality; iii) meeting the needs for education of young people and adults; iv)

achieving a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for adults; v) eliminating gender disparities in primary and secondary learning; vi) improving the quality of education, especially in literacy, numeracy and essential life skills.

b) Strengthening of demographic information systems, and better training opportunities for the labour force

Significant changes have occurred in the size and growth of the population, as well as in its density, geographical distribution, and structure by age group, with a strong impact on educational demand and the need to improve the educational level of the population. There is a need for further demographic research in response to education issues. The population is still growing, from 894 700 inhabitants in 1920 to 8.6 million in 2002, despite a substantial decline in the rural population. Over this same period, the population density grew from 18 persons/km^2 to 177. Between 1950 and 2002, there was a significant decline in the number of people living in rural areas, from 76.2% to 36.4%. The changes in historical trends in terms of fertility, mortality and migration had an impact on the distribution of the population by age, generating additional social demands as to education, health, housing and manpower.

Today, the economically active population is growing and the educational level of the labour force is on the rise, although unemployment remains high as a result of population growth and the economic situation of the country. (For example, in 2004 the unemployment rate stood at 18.4% as a result of economic recession.) More than 70% of the labour force has attended primary and secondary schooling, and a smaller proportion went on to higher education, while on average 8% of the workers have no schooling whatsoever. The level of education is higher among female workers, compared to their male counterparts. Young people in the Dominican Republic have been significantly affected by unemployment (38.6% in 2004). During that same year, 85 777 people were on unemployment benefits.

The main challenges are to strengthen the information systems related to the population and the labour force, as well as to the educational improvement of the economically active population, both in urban and rural areas. INFOTEP should implement a training and redeployment plan aimed at offering training and refresher courses to the economically active population as well as other instructional offers provided by the education system as a whole.

c) Adoption of policies and measures geared toward economic development and enhanced possibilities to increase expenditure on education

The Dominican economy grew at an average rate of 6% per year, one of the best economic performances of the region, notwithstanding a downwards trend from the year 2000, accumulating an increase of 2% per annum and reaching 4% over the years 2001-2002. This success can be explained in part by a carefully-led fiscal policy and other economic measures, despite of the large internal and external debt, as well as the excessive public spending.

Financial resources allocated to education have not reached the level stipulated in Law 66-97. The education share represents an estimated 2% of GDP, which can be raised if there is an increase in public expenditure on education. Pursuant to the said law, investment in the area must reach 16%, or 4% of GDP, as a minimum. Only in 1999, 2000 and 2002 did educational expenditure reach 16% of the total spending of the central government and a maximum of 2.7% of GDP.

The main challenges are the adoption of policies and measures that secure sound economic performance and appropriate allocation of resources, in order to meet the requirements of the educational system: a minimum of 4% of GDP, as required by Law 66-67, if not the 6% stipulated in some international commitments. The Presidential Forum on the Excellence and Quality of Dominican Education seeks to contribute to the achievement of the Millennium Development Goals. Strategic planning for education at the national level should also be reactivated and strengthened.

d) Improvement and strengthening of the entities that form the Dominican school system, in order to raise its efficacy and efficiency, and contribute to the achievement of its institutional and programmatic goals

The Departments of Education, Higher Education, Science and Technology, and INFOTEP are the three entities that constitute the Dominican education system. They perform important tasks such as planning, technical consultancy, execution and supervision, support, implementation of general policies related to higher education, science and technology. They also work with the Presidential office in an advisory capacity, and are in charge of establishing sound relationships among various parts of the system, as well as between the State and a range of scientific, technological, cultural, and business institutions. Similarly, these ministries benefit from the support of the National Education Board (SEE), and the National Sub-commission for Higher Education, as well as the Sub-

commission for Science and Technology and the National Board of Higher Education, science and Technology. INFOTEP performs duties related to the training of human resources for the national productive sector, plays an advisory role for the business sector, and oversees vocational education throughout the country.

The main challenges are to implement a continuing evaluation system, designed to guide and enhance the activities of the entities involved in Dominican education; to review its organisation and norms in order to optimise its institutions; to implement a strategic education planning; to modernise the management and decentralisation of the system; to improve staff training and education; to enhance working conditions, and to make better use of information and communication technology, in order to improve efficiency and institutional performance.

e) Expansion of access and coverage in pre-primary, primary and secondary education, aimed at raising quality levels, ensuring equality, and achieving education and literacy goals. This means that, by the year 2015, the Millennium Development Goals should be achieved (specifically Goals 2 and 3), as well as the six goals of Education for All

Significant progress has been made in pre-primary, secondary and adult education in terms of enrolment rates and improvement of promotion and survival, while the rates of repetition, drop-out and over-age have decreased. For instance, over-age in general secondary learning fell from 51.2% in 2002-2003 to 38.7% in 2005-2006, and in primary level it fell from 23% to 19% in the same period. Promotion or passing rates grew from 66.8% for the 1994-1995 school-year to 86.3% in 2004-2005. This means that there was a 29.3% increase in pass rates during that period. Repetition rates and drop-out tend to decrease. In the case of primary level, repetition fell from 15.5% to 7.3% between 1994-1995 and 2004-2005, and drop-out from 21.4% to 6.4% in the same period. Over-age reached 34.5% during the 1996-97 school year, shrinking to 19% in 2005-2006. This indicates a trend toward greater internal efficiency of the education system.

However, educational coverage remains an issue, especially in pre-primary and secondary schooling. A workable solution must be found to the problem of retention of students. The drop-out rate remains high; 50% of pupils entering grade 1 complete only four years of schooling, 22% complete the eight-year primary level, and only 10% complete secondary school. In addition, in order to complete the eight years of primary

education, the average expenditure required per student is equivalent to 14 years, due to high repetition rates.[21]

As to illiteracy, a decrease was registered in the 15-45 age group, from 31.4% in 1980 to 18% in 1996 and 11.5% in 2000. Similarly, adult education programmes were strengthened. According to UNESCO estimates, in 1980, six countries (Guatemala, Nicaragua, Surinam, El Salvador, Honduras and the Dominican Republic) had illiteracy rates between 30 to 50%, while only four countries (Uruguay, Trinidad & Tobago, Cuba and Barbados) were below 5.0%. In 2000, illiteracy rates accounted for 11% to 19% in the Dominican Republic, Bolivia, Brazil and Jamaica, while three countries are below 5% (Costa Rica, Chile and Argentina). The rise of literacy in the Dominican Republic is related to factors such as educational access, coverage, quality and equality, reflecting a firm commitment to raise the education level of the population.

The low level of quality poses a major challenge, regardless of all efforts made, especially in terms of education management, curriculum development, human resources, and the introduction of adequate instruction materials. The expansion of the system in quantitative terms was not accompanied by qualitative improvement.

Significant efforts have been made in assessment of learning, although the low levels of quality are still reflected in the poor performance of students taking national examinations (at the end of grade 8 in primary, the third cycle of adult and non-formal education, and the fourth year of secondary school). In 2005, the lowest averages were recorded in Spanish language (57.5%); social sciences (48.1%); natural sciences (53.0%); in mathematics, the lowest was 52.7% in 2000, all well below the passing grade of 65. Clearly, these results call for a review of curricula and new strategies for teaching methodology and teacher training. In addition, resources should be targeted on these core subjects, and different methods of assessment should be tried to give students a better chance of demonstrating their achievements.

Another factor related to learning achievement is the current state of the physical infrastructure, whose expansion does not keep pace with the educational demand. The deterioration of a number of school buildings, and the chronic deficit of classrooms, are thorny issues calling for a master plan, financial resources and strong administrative and management capacities. In 1996, the Dominican education system had 19 000 classrooms, reaching 26 000 in 2000 and 29 000 in 2004.

[21] United Nations Development Programme (UNDP) (2005).

In summary, although the education system shows encouraging and competitive indicators in general – even when compared to other countries in the region – there are still a number of deficiencies requiring attention. These include, among others, the building of new classrooms, the provision of textbooks to all students, and a school meal programme.

The main challenges are the implementation of strategic actions designed to extend coverage, especially in pre-primary and secondary education, as well as the reduction in rates of repetition, drop-out, over-age and illiteracy. Strategies and policies must be implemented to substantially raise the quality of education, with emphasis on student learning, pedagogical and curricular transformation, and teacher training. There is also a need to pursue innovations in education, to modernise management and make better use of education resources, including information and communication technology. The development of decentralisation policies and educational institutions at the local level enables further improvement of the quality of schooling on a permanent basis. These measures are necessary if national and international objectives (such as the United Nations Millennium Development Goals, Education for All, and the Secondary Education Reform) are to be achieved.

f) Further expansion of coverage and improvement of quality in higher education, in the priority fields of study and programmes that support national development, including the promotion and implementation of distance and virtual education.

There has been a significant expansion of higher learning, in terms of the number of institutions and programmes, coverage, and graduation. In 1950, there was only one university in the country, *Universidad Autónoma de Santo Domingo (UASD),* with a population of 1 987 students, accounting for a gross coverage of only 0.6% of the 18-24 age cohort. By 2003, the number of institutions had reached 38 and the student population 298 092, for a total coverage of 24.8%, while in 2005 there were 43 higher learning entities and 322 311 students, an increase in coverage to 25.8%. However, even this rapid expansion rate does not necessarily respond to the needs for social and economic development, nor does it advance the quality and diversity of higher education. The development of higher education remains a major national concern, in terms of the country's socio-economic requirements.

The main challenges are the improvement of the quality of higher learning, which must suit the needs for economic development and national productivity, gender equality, scientific and technological development, teacher education, and qualified administrative and technical personnel. In

short, a sweeping reform must be carried out in higher education. In this context, it is important to set up a mechanism or system ensuring educational quality and honouring international commitments, such as the goals defined for the 21st century in the Declaration of the World Conference on Higher Education. Within the framework of the Presidential Forum on Education Excellence, a national and regional consultation was initiated, focussing on the state and perspectives of higher learning, science and technology in the Dominican Republic. This consultation is taking place through a number of roundtables, aimed to formulate a Ten-Year Plan for higher education.

g) Expansion of vocational education offers to respond to the needs of socio-economic development and to contribute to quality vocational and professional training

The current offer of vocational and professional education is suited to the requirements of the production and social sectors. In that context, it is important to stress the high percentage of urban dwellers (72.1%), as a consequence of massive migration from rural areas to the cities. This means that the school system (via INFOTEP and system of professional training) must ensure a type of instruction based on activities that promote and reinforce retention of populations *in the rural areas*, where important contributions are made to the country's development and productivity, especially through agriculture.

The working-age population in actual employment accounted for 53.6% between 1996 and 2000, reaching 58% in 2004. The increase in the number of unemployed looking for their first jobs (39.7% between October 2003 and 2004), indicates a need for new strategies in vocational and professional training.

The main challenges are to match vocational education opportunities to the needs of the country; to design better-quality educational programmes; to instil a culture of productivity; to revise the role of the training provider; and to strengthen the entrepreneurial and productive sectors related to the development of the country, in order to improve access to the labour market for young people. In this context, it is also imperative to reconsider the employment of women, who are still at a significant disadvantage when it comes to job opportunities, although in general female workers are better prepared than their male counterparts. Another key challenge relates to the training of human resources suited to the requirements of the treaties of free trade agreement, in particular the DR-CAFTA treaty.

h) Comprehensive reform of the Dominican education system to meet the challenges of the National Education Plan, to ensure educational quality and equity, and improve the working conditions of the teaching staff

The economic models adopted by the country have already had a marked impact on the allocation and targeting of funds earmarked for education, compared with the 1970s when priority was given to investments in physical capital instead of in human resources. During that decade, commendable efforts were made in order to improve education; however, the reforms that took place in secondary, vocational and higher education focused on teacher training, neglecting other needs. Now, a more comprehensive reform of education is needed, rather than a piece-meal approach that does not result in greater efficiency and effectiveness of the education system as a whole.

Demographic trends have also affected, and will continue to affect, educational demand, especially in higher education. During the 1990s, the socio-economic conditions of the country worsened, posing great economic challenges and calling for urgent reform of education to compensate for deficits that had accumulated since the 1960s. Such reforms, as mentioned earlier, must be based on a global approach and not on the contingencies of the moment, which often lead to investments and efforts out of all proportion to results.

Nevertheless, education reforms – though partial – have contributed to the transformation of various components of the system, to decentralisation, to local decision-making, better participation, more efficient finance flows, and social investment. But attention should be paid to teacher education and training, as well as to better working conditions and security of employment in order to achieve a better performance of the system. Dominican teachers have made progress toward self-development, self-confidence and self-esteem, as well as toward a growing awareness of their role in society. Teachers show greater motivation to develop new knowledge and skills, along with greater efficiency in teaching and administration.

The Dominican school system has been making progress since the crisis of the 1990s, raising the low levels of attendance and improving the poor survival rates that marked the beginning of that decade. The system now faces a new challenge: modernising education in the midst of new economic hardships that limit the possibility of implementing many of the planned reforms.

In conclusion, the main challenges are to implement comprehensive reforms and formulate clear-cut policies aimed at enhancing the social,

scientific and technological competitiveness of the country in a global information and knowledge economy. In particular the initial and continuing education of teachers, as well as their status and career structure, must be addressed.

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PART TWO
Examiners' Report

Preface

Progress of education reform

The education system of the Dominican Republic is in a process of transition and uneven development. It has suffered from difficult historical circumstances in the past, and it faces many challenges in the future as it seeks to cope with the forces of globalisation and the demands of the knowledge society. Educational reform is a declared public policy priority and the long-term well-being of the society will depend heavily on the successful realisation of such a reform.

After the sharp decline in support for education in the 1980s, a process of recovery of the education sector started in 1992 with the Ten Year Education Plan, *Plan Decenal de Educación* (PDE), a modernisation project of the educational sector with the goal of raising people's educational level. The PDE resulted from a national consultation, which involved the State Secretariat of Education (SEE), the Dominican Teachers Association, civil society and the private sector. The objectives of the PDE were to:

- Increase significantly the access to and retention in basic education and strengthen activities to facilitate access of marginalised social sectors to the education process.
- Introduce major changes in the curriculum to improve quality, pertinence and relevance to the present and future demands from Dominican society.
- Improve significantly teachers' social, economic and professional conditions.
- Raise the level of competency and efficiency of the Secretariat of Education and its decentralised branches in policy making, planning and managing of education under its responsibility.

- Win an effective participation from society in general and organised community of parents in particular in managing the education process.
- Increase noticeably economic resources that society and the State invest in education, expanding significantly the contribution of conventional and non-conventional sources of educational funding.[22]

Over the last 14 years, the government has taken a number of major initiatives to implement the goals of PDE to modernise and reform the education system. After a long period of consultation, the General Law on Education (*Ley de Educación No.*66-97 – LDE) was approved in 1997. The LDE emphasised key points including reorganising the structure of the education system, promoting flexibility and curricular innovation, specific goals related to financing of the education sector, basic organising principles to decentralise the system, and professional development of teachers. Implementation of key aspects of the LDE has been slow, but good progress has been made in key areas such as decentralisation and teacher professional development.[23]

The Law on Higher Education, Science and Technology (*Ley 139-01 de Educación Superior, Ciencia y Tecnología)* enacted in 2001, set forth the policy framework for the nation's tertiary education system and established the State Secretariat for Higher Education, Science and Technology (SEESCyT) as cabinet-level entity separate from the State Secretariat for Education (SEE). The Law sets forth the objectives of the National System of Higher Education, Science and Technology, including objectives focused on (a) the promotion, articulation and offer of a relevant, quality and accessible higher education to all Dominicans, (b) the creation and incorporation of knowledge, innovation and invention at all levels of Dominican society, and (c) achieving the intermediation and articulation of the institutions and results of the National System of Higher Education, Science and Technology with the rest of society.

The Strategic Plan for Development of Education in the Dominican Republic, 2003-2012 (*Plan Estratégico de Desarrollo de la Educación),* reflects a continuing commitment to implement the goals of the PDE of 1992. The OECD team sensed less commitment to this plan compared to the 1992 PDE perhaps because this new plan was developed with less

[22] Plan Decenal de Educación. (1992). Congreso Nacional de Educación Santo Domingo, R.D.

[23] Alvarez, 2004, p.2.

engagement of civil society than the earlier plan and was completed before the 2004 presidential transition. The Dominican Republic has set forth bold but pragmatic objectives to meet the expectations of the Millennium Development Goals (MDG), especially Goal Two regarding education. Goal Two is that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. The Dominican Republic made this goal more specific and challenging: that, by 2015, all 15 year olds will have completed nine years of quality basic education[24] (one year of initial education and eight years of basic education) (SEE, *Los Objetivos del Milenio)*. To reach this objective, the document, *Los Objetivos del Milenio (ODM),* calls on the Dominican Republic to:

- Ensure that as from the academic year 2007-08, 100% of five year old children attend a quality initial level and that all six year olds enter the first basic level grade.
- Reorganise and institutionalise the education system placing the school as the centre itself.
- Solve the civil registration problems which prevent many students from completing basic education and set up legal mechanisms to demand early school registration for children and their permanency in it until they have completed basic education or reached sixteen years of age, at least.
- Increase the offer and improve the quality of secondary education as an incentive to complete basic education and as a response to the educational demand which will be generated by the consolidation of a basic education of quality.
- Reduce repetition, desertion and over-age to the minimum in order to make it possible for children to finish basic level in time and prevent extended repetition from overloading the school unnecessarily.
- Strengthen adult education so that more citizens can complete their basic education, in order to stimulate the interest of adults in their children's education and to serve over-age students.

[24] This level *(básico)* which lasts for 8 years, includes children from 6 to 14 years old. It is considered as compulsory the world over and, consequently, is the responsibility of government to make it available for all citizens. It includes two cycles: the first cycle with grades 1 to 4 for the population of 6 to 10 years old and the second cycle for grades 5 to 8 is intended for the 10 to 14 years old age group.

- Redefine, together with universities and teacher training institutes, the new strategy for the training of teachers and school directors, as well as that of research and educational innovation.
- Mitigate the social risks which affect adequate performance at school.
- Mobilise Dominican society in favour of education.

SEESSCyT policies

General policy

Develop a Ten-Year Plan that includes relevance, equality, quality, science and technology, ICT, modernisation and innovation, links-articulation with the other sectors and values, identified in the national project adopted by the Government.

Other policies include:

- Modernise the structures, the process and the services of the SEESCyT.
- Strengthen the programmes of equity and attention to diversity, offering greater opportunities to young people for successful participation in higher education.
- Strengthen ongoing actions to raise the quality of higher education, favouring the formation of human resources with the capacities and competencies required by the global knowledge-based society.
- Reform the use of information and communication technologies (ICT) in the higher education institutions.
- Redesign and upgrade the curriculum of higher education institutions, making it more relevant to the requirements of national development.
- Strengthen and expand the Programme of English for competitiveness, offering students learning opportunities at a high level, through contributing to the process of competitiveness of the country.
- Develop the programme of extension that permits strengthening the System of Higher Education and its links with society.

These actions would make significant progress toward addressing the problems identified in the course of this OECD review. The recently established President's Forum on Excellence in Education (*Foro Presidencial por la Excelencia de la Educación*) demonstrates the President's commitment to pursue these changes and to broaden and deepen the education reform process.

The OECD examiners' findings and observations agree substantially with and reinforce the findings of other recent studies. The report draws where appropriate on these other studies to underscore its own findings. The problems and the major actions are well known and have been thoroughly documented in the Dominican Republic. Now, the basic challenge is to move from diagnosis and strategy to action.

At the time of the OECD examiners' visit to the Dominican Republic in October 2005, the campaign for election to the Congress scheduled for May 2006 was well underway. At that time, the President's political party was in the minority in both houses of the Congress. While the OECD team sensed a broad consensus among education, civic and political leaders from different parties on the need for fundamental education reform, political divisions were a significant barrier to progress. Political divisions and the discontinuity in reform created in the transition between Governments have been significant impediments to the practical, step-by-step implementation of needed changes. In May 2006, the President's political party gained majorities in both houses of Congress. This new political context has the potential for establishing the basis for building a national consensus on the goals of education reform and developing the political will needed for implementation.

Structure of the Examiners' Report

The first four chapters, including chapters two through five, focus on initial, basic, and middle-level (secondary) education. Chapter 4 focuses primarily on the transition from secondary education to the labour market and further learning. Chapter 6 addresses issues of leadership, governance, and monitoring performance of the system from initial through middle-level education, generally the elements of the system under the authority of the State Secretariat for Education (SEE) but not including tertiary education.

The Examiners' Report uses the general framework of Figure 1.1, the principal dimensions of the effectiveness of a country's education system, to structure the observations and findings in Chapters 2 through 5. This framework underscores that the ultimate goal of the system is to improve student learning of not only the school age population but also adults

through lifelong learning. The capacity of an education system to achieve this goal depends fundamentally on:

- The capacity of schools, especially the teachers in the classroom, to deliver the intended curriculum.
- The context for learning at the classroom and school levels and at the district, regional and system levels.
- External support in terms of parents and communities, and the leadership, management and monitoring capacity at the school, district, region and national levels.

Chapter 7 addresses issues related to tertiary education, science and technology, the issues generally under the purview of the State Secretariat of Higher Education, Science and Technology (SSESCYT). The final chapter includes overall conclusions and recommendations regarding priorities.

Figure 1.1 **Dimensions of educational effectiveness**

Focus	"Outside" factors that affect learning	The context in which learning takes place	The content of learning	The outcomes of learning: what can be evaluated?
System level	Laws, system design and [social] conditions	Institutional settings and finance	Intended curriculum: the desired situation; policy, 'standards'	System outcomes: indicators of access, equity, student flow, efficiency
School level	Community, school, and teaching conditions	School and classroom conditions	Delivered curriculum: classroom teaching, textbooks, hours	School or classroom outcomes: school quality, teaching quality
Student level	Student background and social/individual factors	Student motivation, interest and behaviour	Attained curriculum: what the student actually learns	Student learning outcomes: *e.g.* as measured by tests/exams related to national standards

Source: Johanna Crighton in *Reviews for National Policies for Education: Lithuania* – OECD, 2001.

***Note*:**

1. From the OECD Review of National Education Policy in Lithuania, based on advice from Johanna Crighton and the IEA studies of international achievement. See also "Conceptualisation of Monitoring Quality in Education: The Relation with Education Standards and Assessment." Tjeerd Plomp and Joke Voogt (1998) in *Education Standards and Assessment in the Russian Federation* Leuven. pp. 81-88.

Chapter 1. Context

Chapter 1 frames the context of the review of national policies for education in the Dominican Republic. It outlines key background statistics relating to the population of the country and the current status of the economy, particularly key statistics on public expenditures for education. The chapter also discusses the structure of the education system. The system is defined in the General Law on Education and includes an initial level, two cycles of basic education, a middle level and a higher level.

The Dominican Republic is a developing country in the Latin American/Caribbean (LAC) region. It shares the island of Hispaniola, the first ground touched by Columbus in the Americas, with Haiti, and is flanked by Cuba to the west and the United States Commonwealth of Puerto Rico to the east.

Population

The population of the Dominican Republic was 9 million in 2005. Most of the inhabitants are of mixed aboriginal, European and African descent, with a significant segment formed by Haitians and their descendants. The national language is Spanish, and most of the population is Roman Catholic.

The population has grown dramatically over the past century, but the rate of growth has slowed in the past decade as illustrated in Table 1.1.

Perhaps the most striking educational challenge that has faced the Dominican Republic over an 80 year period is the physical provision of educational facilities for a population which has increased almost tenfold. The pressure of population increase has been particularly intense over the last 20 years, increasing by over 50% from 5.6 million in 1981 to 8.6 million in 2002. The fact that about 44% of the Republic's current population is under 20 years of age underlines the challenge of the quantitative dimension of educational provision. Within the context of such pressure, it was an achievement to reduce the illiteracy rate from 33% in 1970 to 13% in 2002

even as the population grew[25]. As discussed in greater depth in this report, the Dominican Republic has made significant gains in access. The problems remain in improving retention and the internal efficiency of the system getting more students through the system to higher levels of student learning.

Table 1.1 **Population and inter-census growth rates 1920 - 2005**

Year	Population (Thousands)	Growth Rate (%)
1920	894.7	----
1935	1 479.4	3.4
1950	2 135.9	2.5
1960	3 047.1	3.6
1970	4 009.5	2.8
1981	5 648.0	3.1
1993	7 293.4	2.2
2002	8 562.5	1.8
2005	9 033.0	1.8

Source: National Statistics Office (ONE), Population National Census.

In utilising data on population trends in the Dominican Republic, one must consider that historically births and deaths were not consistently registered, if at all. Ensuring that all births are registered remains a major problem today. Registration is a prerequisite for eligibility for social services. A key intervention in the country's plans to achieve the second Millennium Development Goal (as restated by the Dominican Republic), ensuring that all 15-year-olds have completed nine years of quality education, is the introduction of administrative and legal measures to solve issues of students' birth registration.

Migration, both international and internal, has major implications for education in the Dominican Republic. The Dominican Republic experiences a "dual" pattern of migration: a massive out-migration, primarily to the United States and Europe, and a significant in-migration, primarily from Haiti. The Dominican population of the United States doubled in the decade of the 1990s from 520 121 in 1990 to 1 041 910 in 2000. Most of that growth (300 000) resulted from immigration. The Dominican population is projected to become the third largest Hispanic/Latino population group in

[25] UNESCO Institute for Statistics, Statistics in Brief, Dominican Republic. 87.0% of adults and 94.2% of youth were literate in 2002.

the United States by 2010. Remittances from Dominicans in the United States and Europe mainly to relatives are an important element of the nation's income, constituting approximately 10% of the Dominican Republic's GDP. While most Dominican immigrants arrived in poverty and with low levels of education attainment, they have shown remarkable progress in acquisition of education, especially in the second generation, outdistancing all other Hispanic/Latino populations in the United States, and their economic status is likewise improving.[26] Several implications for the Dominican Republic flow from these trends. The increase in education and economic status of the Dominican Diaspora in the United States and Europe is contributing to a permanent flow of resources to relatives at home. However, this population outflow constitutes an extraordinary loss of potential human capital for the Dominican Republic. The trends indicate clearly that Dominican students do well in improving their education attainment when challenged by high expectations and provided access to good schools and teachers. In the long run, one would hope that as the economy improves, the Dominican Republic could persuade Dominicans to return to contribute directly to the country's economy and quality of life. The impact of the current pattern of migration and dependence on remittances may be having a negative impact on efforts to achieve improvements within the country. Carola Alvarez notes that the Dominican Republic has one of the lowest levels of participation of the population in the work force, and that there is a clear and negative correlation between participation in the work force and access to remittances from abroad.[27] In other words, foreign remittances may be having a dampening effect on the need for work and on the pressure to increase the competence levels of the population to seek for higher salaries.

Balancing out-migration, the Dominican Republic continues to experience significant and not fully documented immigration from Haiti of a population with significant problems of low education attainment and poverty. According to the International Migration Office (OIM), the Dominican Republic is the principal receiver of Haitian workers in the Caribbean with 750 000 entries in 2006, and the second in the world behind the United States with 800 000 entries.[28] Given the problems of documentation, reliable data on the total impact of Haitian immigration are difficult to obtain.

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[26] Hernández & Rivera-Batiz, 2003.

[27] Alvarez, 2004, p.31-32

[28] "Proposal for a management policy of Haitian workforce migration"

The Dominican Republic is also experiencing a steady migration from rural to urban areas. The proportion of the population in urban areas has increased. This change presents significant problems for education policy as migrants from rural areas lead to over-crowding of urban schools, especially in urban fringe areas, and it becomes more difficult to serve isolated, poor and less-educated populations remaining in rural areas.

Table 1.2 **Total population by zone, 1950-2005 in thousands**

Year	Total	Urban		Rural	
		Population	%	Population	%
1950	2,133	508	23.8	1,625	76.2
1960	3,047	922	30.3	2,125	69.7
1970	4,009	1,593	39.7	2,416	60.3
1981	5,648	2,936	52.0	2,712	48.0
1993	7,293	4,094	56.1	3,199	43.9
2002	8,563	5,447	63.6	3,116	36.4
2005	9,033	5,746	63.6	3,287	36.4

Source: Background report, ONE, National Population Census. 2005 estimate based on 2002 census.

Economy

The gross domestic product per capita (GDP) in the Dominican Republic is an estimated USD 7 000 parity purchasing power (PPP). This is a level similar to that of Colombia and Panama, above the extreme situations of Haiti, Nicaragua, Bolivia and Honduras, but still distant from middle-income countries such as Mexico, Chile, Costa Rica, Uruguay and Argentina.

Historically, the Dominican Republic economy was geared to the production of sugar cane and other agricultural products and mining (raw materials). Today, and increasingly, revenues come from tourism, remittances of Dominicans residing in the United States and Europe, and revenues derived from several Free Trade Zones established in different parts of the country. In 2002, 51% of the economically active population worked in services (including tourism, public administration and security) and 15.9% worked in agriculture and animal husbandry.

As is clear from the following table, the Dominican Republic experienced impressive economic growth rates over the last thirty years, outperforming other Central American and Caribbean Countries.

Table 1.3 **GDP Per Capita Growth in the DR, LAC and the World, 1971-2005 (%)**

	1971-80	1981-90	1991-99	2000-05
Dominican Republic	4.17	0.31	3.75	2.40
Central America[1]	1.50	-0.81	1.81	0.53
LAC[2]	3.44	-0.74	2.05	0.26
World[3]	2.68	2.29	1.72	2.70

Source: Based on Loayza, Fajnzylber and Calderon (2002) and WDI (2004).

***Notes*:**

GDP measured at USD 1995 purchasing power parity.

1. Simple Average
2. Weighted average; n = 26
3. Weighted average, n = 109

After a decade of little to no growth in the 1980s, the Dominican Republic's economy boomed, expanding at an average rate of 7.7% per year from 1996 to 2000. Tourism (the leading foreign exchange earner), telecommunications, and free-trade-zone manufacturing are increasingly important industries, although agriculture is still a major part of the economy. The Dominican Republic owed much of its success to the adoption of sound macroeconomic policies in the early 1990s and greater opening to foreign investment. Growth turned negative in 2003 (-0.4%) due to the effects of a major banking crisis and limited growth in the United States economy.

According to the Dominican Republic Central Bank, the economy shrank by 1.9% in 2003, but grew by 2% in 2004, and reached 9.3% growth in 2005.[29] Consolidating the recovery process began in the second half of 2004. As a result, the Dominican Republic is one of the fastest growing economies in Latin America, together with Cuba (11.5%), Venezuela (9.0%), and Argentina (8.6%).

Public expenditures for education

The General Law of Education 66-97 requires public expenditures on education to be 16% of the total public expenditure, or 4% of the GDP, whichever is higher (Ley No. 66-97, Art. 197). The Law on Higher

29 Central Bank of the Dominican Republic 2005, p. 44.

Education, Science and Technology (Ley 139-01, Article 91) requires that not less than 5% of public expenditures be allocated to public higher education.[30] These levels of expenditure have never been reached, even though there was a significant advance between 1998 and 2001.

Table 1.4 **Gross Domestic Product, Percent Composition by Economic Sectors 2001-2005**

	2001	2002	2003	2004	2005
Total	100	100	100	100	100
Agriculture and husbandry	11.9	11.2	10.0	11.5	11.2
Agriculture	6.1	5.6	5.5	5.5	4.8
Cattle	5.1	4.8	4.7	5.1	5.6
Forest products and fishery	0.7	0.9	0.8	0.9	0.8
Mining	1.7	1.4	1.6	1.6	1.5
Manufacture	16.0	15.9	15.6	15.8	15.0
Sugar	0.8	0.7	0.7	0.8	0.6
Local industry (not sugar)	12.2	12.6	12.2	12.2	11.9
Free zones[1]	3.0	2.6	2.7	2.9	2.5
Construction	12.4	12.6	12.2	12.2	11.9
Commerce	13.3	13.7	11.9	11.3	12.5
Hotels, restaurants[2]	6.6	5.9	7.2	7.3	7.2
Transportation	5.7	5.6	5.2	5.2	5.2
Communications	8.7	10.7	12.0	13.4	15.7
Electricity and water	2.5	2.6	2.4	1.9	1.8
Financial activities	3.9	3.8	3.7	3.6	3.5
Housing	4.2	4.0	4.2	4.2	4.0
Government	7.4	7.4	7.8	7.9	7.3
Other Services	5.7	5.5	5.7	5.7	5.5

Source: Central Bank of the Dominican Republic, 2005.

Notes:

1. Includes salaries at 1970 prices. 2. The period of 2003-2004 was revised to take into account devaluation and inflation in these years.

[30] The actual language of these laws is as follows: Act 66-97, Art. 197. Within the two years following the enactment of this law, the annual public spending on education shall reach a minimum of 16% of total public spending or 4% of the gross domestic product (GDP) estimated for the current year; whichever is greater. After this time period, said values shall be proportionally adjusted annually at a rate not lower than annual inflation, not reduced by ongoing increases in public spending and gross domestic product (GDP). Higher Education, Science and Technology Act. Art. 91. Public investment for the first year following the enactment of this law shall not be lower than 5% of budgeted income and public spending specified in Act 5778 of December 31, 1961, which grants autonomy to the Universidad de Santo Domingo, and will be allocated to said university and other public universities. In addition, this shall include grants given to all other institutions of higher learning.

Historically, the Dominican Republic has had one of the lowest levels of social spending in the Latin American region and one of the lowest expenditures in education. According to the data from UNESCO's Institute for Statistics for 2002/3, public expenditure in education as a percentage of GDP was only 2.27%, compared to more than 4% for all other countries in the region, except El Salvador, Nicaragua, Surinam and Venezuela.

Public expenditure on education as a percentage of GDP decreased in the 1980s and increased in the 1990s. However, in 2001, it occupied the third lowest position among 25 Latin American Caribbean countries as is shown in Table 1.5.

Table 1.5 **Public expenditure on education as a percentage of GDP, 1999-2001**

Country	%
Ecuador	1.0
Guatemala	1.7
Dominican Republic	2.7
El Salvador	2.5
Uruguay	2.5
Antigua and Barbuda	3.2
Peru	3.3
Chile	3.9
Brazil	4.0
Trinidad Tobago	4.0
Panama	4.3
Colombia	4.4
Argentina	4.6
Paraguay	4.7
Costa Rica	4.7
Dominica	5.0
Mexico	5.1
Bolivia	6.0
Belize	6.2
Jamaica	6.3
Barbados	6.5
Saint Lucia	7.3
St. Kitts and Nevis	7.7
Cuba	8.5
St. Vincent/Grenada	9.3
Average	4.3

Source: UNDP Dominican Republic, 2005 p.173.

The low percentage of GDP dedicated to education in the Dominican Republic in 1999-2001 was, however, an improvement compared to 1991, when expenditures fell to less than 1% of GDP from a decade earlier, leading to a dramatic decrease in teacher salaries. According to a study carried out by the Inter-American Development Bank, in 1991 teacher salaries in real terms were just 20% of what they were in 1966. By the beginning of the 1990s the education sector had deteriorated considerably. The average teacher salary per shift (*tanda)* was equivalent in 1990 to USD 50 per month, which was less than the minimum wage of USD 63 during that year. This salary reduction translated into an increase of the teachers' desertion rate. It is estimated that between 1989 and 1990, a total of 3 853 left the profession, thus increasing the teacher desertion rate to 7% of all teachers. These teachers were replaced by "empirical" teachers – teachers without teacher training.[31] In the 1990's, salaries increased again gradually, thanks to high rates of economic growth and the new Ten Year Education Plan (*Plan Decenal)* established in 1993.[32] Since 2003, however, public expenditures on education were 2.2% in 2006, 2.0% in 2003, 1.5% in 2004, and an estimated value of 1.9% for 2005.[33]

The Dominican Republic invests only about 0.03% of GDP in public higher education, compared to the level of 1% to 2% in other LAC countries.

One reason for the low level of resources allocated to education is the small weight of the public sector in the country's economy, at about 21.3% of the country's GDP in 2005 (Prevision for 2005 regarding GDP). In 2003-4, the country suffered a profound financial crisis. A stand-by agreement administered through the International Monetary Fund placed severe limitations on public expenditures with most of public resources allocated to the payment of foreign debt and to expenditures on energy, aggravated by the increase in the cost of oil.[34] The entrance of the Dominican Republic in the Central American Free Trade Agreement (CAFTA) requiring the lowering of trade tariffs could lead to a further decrease in public revenues.

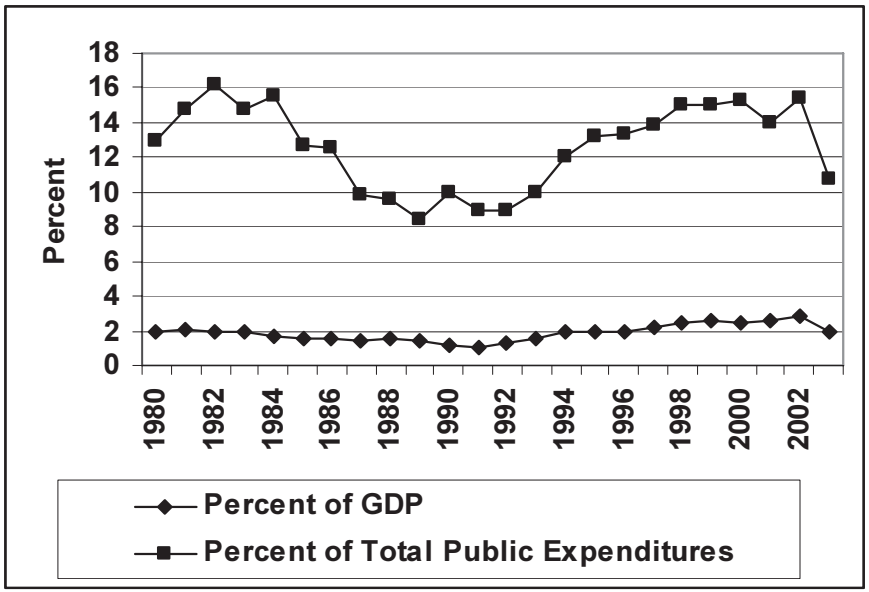
[31] Dauhajre and Aristy 2002, p. 4-5.

[32] Alvarez 2004.

[33] Lizardo 2005, p. 23.

[34] International Monetary Fund, 2005.

Figure 1.2 **Public expenditure in education in the Dominican Republic 1980-2003**



Source: UNDP, Dominican Republic.

The Dominican Republic spends most of these resources on basic education – 62.7% in 2002/3, compared to 11.84% for secondary education, and just 2.7% for tertiary education. The percentage allocated to basic education is the highest in the Latin American region, and the percentages going to secondary and tertiary education are the lowest. The reason for this situation is that the public expenditure for elementary and lower secondary is not divided (level 1-6 and level 7-8) which is the case in other countries of the Region where expenditure is divided by grades. Furthermore, some parts are included which benefit to other levels, for instance teachers who are paid by basic education but work in other levels or modes.

Another characteristic of the Dominican Republic is that a large part of the resources for education is not allocated to any specific level (20.5% according to the UNESCO data for 2002/3, the highest percentage in the region, followed by Colombia and Peru, both with 15% of such funds). This is related to the high discretionary powers of the President of the Republic in the management of public resources. Recently, the scope of these powers has been reduced significantly and represented only 10.4% in 2006. Typically, decisions and management of resources about investments in construction and special programmes are made outside the remit of the education secretaries. The advantage of this arrangement is that it makes it

possible, in principle, to concentrate resources in new, strategic investments and policies that would otherwise not be contemplated in the routine activities of the administration; but it also opens the way for uncertainty and politically-minded decisions.

Education and income distribution

As in most Latin American countries, income distribution is highly concentrated. Comparative data prepared by the United Nations Economic Commission for Latin America indicate that the mean income levels of the 10% richest segment of the population is 19.3 times the income of those in the 40% poorest households. This is better than Brazil and Colombia, but worse than Costa Rica, Chile or Panama.[35]

Table 1.6 **Mean per capita income of households, deciles 10/decile 1-4, Latin America, 2002**

Countries	Proportion
Argentina[1]	20.0
Bolivia	30.3
Colombia[2]	25.0
Costa Rica	13.7
Ecuador[3]	15.7
Guatemala	18.4
Honduras	23.6
Mexico	15.1
Panama[2]	15.0
Dominican Republic	19.3
Uruguay[2]	9.5
Venezuela	14.5

Source: Economic Commission for Latin America and the Caribbean (ECLAC 2005).

Notes:

1 32 urban areas.

2 total urban.

3 urban area.

In the preface to the National Human Resources Development Report, Miguel Ceara-Hatton states that "the Dominican Republic is in transition,

35 ECLAC, 2005.

towards a global economy and society, living in an incomplete global economy and society, that shows great imbalances, where there are sections living in the modernity of the 21st century, while others are living under economic and cultural conditions of the 19th century". The Report explains how the Dominican economy registered in the last 50 years an exemplary average growth rate of over 5% annually. However, the lack of deliberate policies to convert economic growth into social welfare determined that the life of the population did not improve in the same magnitude as economic growth. The benefits of economic advances are felt unequally, and differ according to region, gender, and income strata.[36]

Structure of the education system

The structure of the education system of the Dominican Republic as defined in the General Law on Education includes an initial level, two cycles of basic education, two cycles of middle level and a higher level.[37] The initial level includes children less than six years of age. Only the last grade of initial level and all grades of basic level are obligatory. The basic level is divided into two cycles, the first cycle from grades 1-4, the second cycle from grades 5-8. All citizens have the right to nine years of schooling, including pre-school, and eight years of basic education. These nine years are obligatory.

The secondary level, the middle level (*nivel medio*) in the Dominican Republic, lasts four years and is divided into two cycles of two years each. The first cycle is common to all students, while the second cycle is divided into three main streams: general academic (*modalidad general*), technical/vocational (*modalidad técnico-profesional*), and the arts. The age of students who are on time is 14 at the outset and 18 at the end of the fourth year.

According to the legislation, the middle level is free but not compulsory, only the basic level being mandatory. The first cycle, common to all students offers the following subjects: Spanish, mathematics, foreign languages, social sciences, natural sciences, technology, arts, physical education, and religion. The second cycle allows for electives and specialisation inside each of the three streams: general, technical/vocational, and arts. At the end of the four years, the students must take a national examination to be awarded: the "*bachillerato*".

[36] UNDP, 2005, p. 15.

[37] The level commonly called "secondary education" in other counties is called "middle-level" or *nivel medio* in the Dominican Republic.

Table 1.7 **Structure of education sector (not including tertiary education) by intended age levels**

Level	Cycles		Grades			
			1 – 4	5 - 8	9 –10	11 –12
Initial	Pre-school	5 years				
Basic *(nivel básico)*	1st Cycle		6 to 9 years			
	2nd Cycle			10 to 13 years		
Middle (Secondary) (*nivel medio)*	1st Cycle				14 to 15 years	
	2nd Cycle					16-17 Years

Source: Alvarez, p.3, as amended by SEE.

Note:

As indicated in this report, Dominican Republic has considerables problems with overaged students, especially in the first years of basic education.

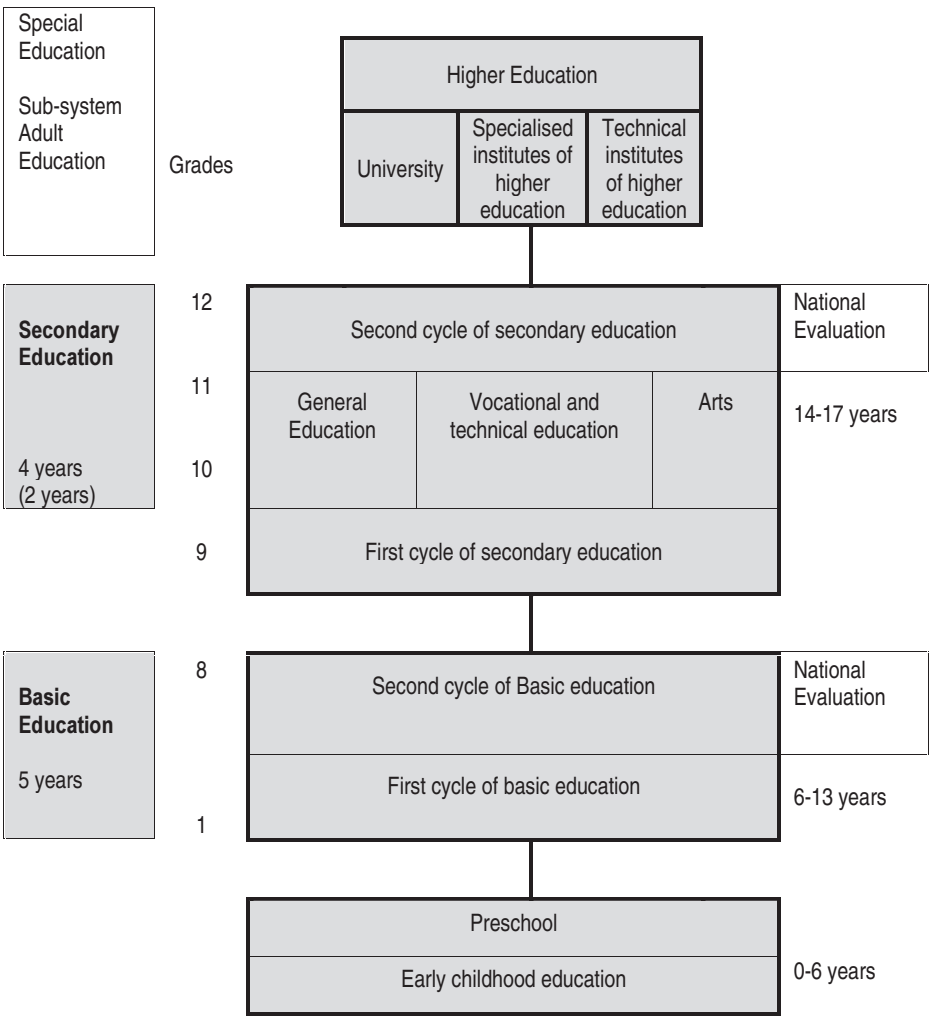
In addition to these educational levels, the Dominican educational system includes two subsystems: special education and adult education. With respect to special education, the policy of the Dominican Republic is for children with special needs to be educated with their own age group and for special education to be integrated in regular programmes, adapting the curriculum as necessary. While effective programmes for special needs students are important elements of the system, the OECD team did not have sufficient information or time to make an assessment of this area in the course of the review. Given the severe resource limitations and the conditions in schools described below, it is clear that the Dominican Republic faces a major challenge in serving special needs students, especially in regular programmes.

According to the Country Background Report, the subsystem of adult education serves students who did not receive or dropped out of the formal education system, as well as those who have completed basic and middle-level education and are seeking additional professional training. Adult education includes literacy, basic education, and four-year (two-cycle) middle-level education. Basic education for adults is five years in duration divided into three cycles: the first two cycles are two years each and the final cycle is one year.

Students completing their secondary education receive a "*bachillerato*" and may enter tertiary education at either a technical level (two-year

programmes) or "graduate" level (four-year programmes) leading to a graduation degree or "*licenciatura*". Master's and doctoral programmes are considered "post-graduate" degrees. There are three types of tertiary education institutions: universities, technical institutes (*Instituto Técnico de Estudios Superiores)*, and specialised institutes.

Figure 1.3 **Structure of the Dominican Education System**



Source: World Bank (2004), *Informe Sobre el Gasto Público*, p. 43 as amended by SEESCyT.

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Chapter 2. Access, Equity, Student Flow and Efficiency

Chapter 2 is concerned with access to the education system and the current situation regarding equity of that access. There has been a rapid expansion of access to education in the Dominican Republic. However, several important challenges remain which the country must face – regarding the provision of access to certain sections of the population and, importantly, the quality of the system and means to move students through to completion of the higher levels. The Dominican Republic has made significant gains in internal efficiency (the progression of students through the system) from the exceptionally low levels in the late 1980s, although the chapter notes the disparity in access and internal efficiency between students in urban and rural areas. The review team provided recommendations for improvement of the system in these areas.

Access and equity

Access to education in the Dominican Republic has been expanding rapidly, but the country still faces challenges in providing access to certain populations and especially in moving students through the system to complete higher levels of education. While achieving quantitative gains, quality remains a significant concern as discussed in subsequent chapters. According to ENCOVI (household survey), the average years of schooling of the adult population aged 15 and above is 7.43.[38]

Approximately 2.4 million students are enrolled in initial, basic and secondary education and most of these students are enrolled in basic school (Table 2.1). Public schools bear the responsibility for educating the vast majority of Dominican students. Approximately 21% of total enrolment is in private institutions, but this varies significantly by level: 39% at the initial level, 15% at the basic level, and 24% at the middle level. Approximately

[38] ENCOVI, 2004.

2.0% of the enrolment is in schools subsidised by the Government and usually operated by religious orders. These schools provide free public education but are able to select students based on academic criteria without regard to family income, and appoint their own teachers. Examples of these schools visited by the OECD team served communities with high levels of poverty.

Table 2.1 **School enrolment by gender, according to school levels (excluding higher education), school year 2005-2006**

	Total	Male	Female	% Female
Total	2 362 395	1 174 564	1 187 831	50.3%
Pre-school (*Inicial*)	211 513	107 589	103 924	49.1%
Basic school (*Básico*)	1 547 351	795 873	751 478	48.6%
Middle level (*Media, general*)	445 780	201 449	244 331	54.8%
Technical professional	35 319	13 928	21 391	60.6%
Adult education	117 538	53 795	63 743	54.2%
Special education	4 894	1 930	2 964	60.6%

Source: National Statistics Office (ONE), SEE 2005-2006.

The Dominican Republic made significant gains in access in the decade of the 1990s. From 1991-1992 to 2001-2002, the gross enrolment ratio (GER) in the first cycle of basic (*nivel básico*) education (grades 1-4) increased from 91% to 138% and the GER for the second cycle (grades 5-8) increased from 42% to 90%. The increases in the same time period were even greater at the secondary (*nivel medio*) level: from 23% to 62%. The increases at the secondary level resulted not only from greater numbers of students moving through the basic level but also from a reduction in the number of dropouts and the return of older students to complete secondary education.[39] Alvarez, in a report for the Inter-American Development Bank, points to policies to increase the flexibility of schooling intended to encourage students to return to school as an important reason for improved access. Policies such as providing three shifts (morning, afternoon and evening), while causing problems as discussed later in this report, have the benefit of permitting youth to continue to work and while attending school.[40]

[39] The gross enrolment ratio (GER) often exceeds 100% because enrolments include students who are repeating grades and those that are over the age commonly enrolled at the grade level, Alvarez, p. 8.

[40] Alvarez 2004, p. 10.

There are known limitations of the available statistics from both the 2002 Household and Population Census and the statistics collected by the education authorities. One can observe the limited reliability of the 2002 Census, for example, in the large variations in the reported number of people by age group, and the high percentage of non-responses in the information on school attendance. Regarding the statistics gathered by the State Secretariat for Education in schools, the data for 2004 school census had not been published at the time of the OECD review and data collection for 2005 was postponed until 2006.

The UNESCO Institute for Statistics estimates of gross enrolment (GER) and net enrolment (NER) ratios for 2005 (as shown in Table 2.2) provide a comparative perspective on access and participation in the Dominican Republic.

- The gross enrolment ratio (GER) at the pre-basic level (*nivel inicial*) is 30 – about one-half the average for LAC countries and among the lowest ratios in the region. It should be noted, however, that only the last year of this level is obligatory in the Dominican Republic. The GER for this single year is 83.7.
- The gross enrolment ratio (GER) for the basic level (*nivel básico*) was 104 compared to 118 for LAC. The higher regional average is skewed by exceptionally high ratios in only a few countries in the region so the ratio for the Dominican Republic is comparable to many other countries in the region. The significant difference is in the net enrolment ratio (NER) where the Dominican Republic ratio is only 92% in the school year 2005-2006 compared to the LAC ratio of 94.9. The difference reflects the high percentage of over-age students enrolled in Dominican basic schools.
- The Dominican Republic GER for all secondary levels (*nivel medio*) was only 71 compared with the average of 89 for LAC.

One can also compare the number of students enrolled in each grade of basic education as reported by the State Secretariat for Education (SEE) with the census data,[41] to see the gross and net enrolment rates by age. Because of late entry and repetition, there are more students enrolled in the first four grades and a significant drop in numbers after that.

[41] Presumably, all age cohorts should have a similar number of people, with slight variations due to change in birth rates. The large variations observed in the census data are probably due to undercounting, and the highest value found was taken as the basis for comparison for each age cohort.

Table 2.2 **UNESCO, Estimated Enrolment Ratios, Latin America and the Caribbean 2005**

	Pre-Basic	Basic		Secondary All programmes	
	GER	GER	NER	GER	NER
LAC	62	118	80	89	69
Dominican Republic[1]	30	104	94	71	53

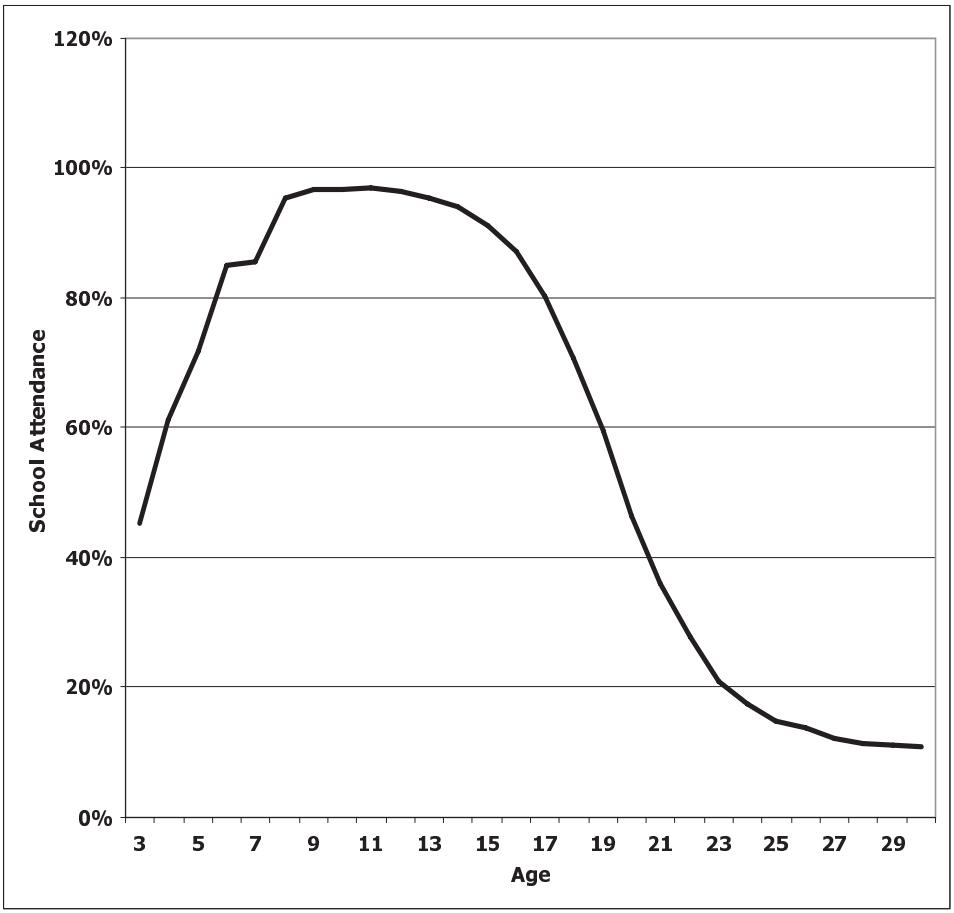
Source: UNESCO Institute for Statistics.

Note:

[1] Amended according to Statistics 2005-2006.

Data from the 2002 Household and Population Census show that most children between ages 9 and 14 are in school, but attendance drops rapidly after that.

Figure 2.1 **School attendance by age cohort**



Source: 2002 Census.

***Note*:**

1. This graph compares the number of those attending school with the total number of those who answered the question about school attendance. It should be noted, however, that there is no information on school attendance for 18% of the population 8-30. In addition, the definition of "attendance" (*assistencia*) for the purpose of the Census and sources of information are not the same as those for enrolment (*matrícula)*. The Census obtains information from individuals and asks questions such as, "Do you or your children attend school?" Education statistics are commonly obtained from schools in a systemic data collection process. This report uses the words "attendance" and "enrolment" carefully to distinguish between these definitions and data sources.

Although the marked drop in school attendance of older youth should be a concern, from a comparative perspective, a higher percentage of the younger Dominican population, especially from age 12 and over, enrols in

education than most LAC countries.[42] As noted above, one can attribute this performance to the flexibility in provision, particularly at the secondary level for students who had previously left the system but have subsequently returned to continue their education. Again, this flexibility also has negative consequences for quality because of overcrowding and inefficient use of resources.[43]

Disparities in access between urban and rural zones

In another measure of access to education, UNDP analysed differences between school attendance of girls and boys in rural and urban schools utilising data from the 2002 Survey of Demography and Health (ENDESA). As shown in Table 2.3 there were no significant differences in attendance rates for boys and girls at the basic school (*nivel básico*) between urban and rural zones. The difference between gross and net rates reflects the high rate of repetition, as discussed earlier. At the secondary level, however, the attendance rates were significantly lower for rural zones.

Table 2.3 **Net and gross school attendance rates for basic (*nivel básico*) and secondary (*nivel medio*) schools by gender and zone of residence, 2002**

Primary Education							
Zone of residence	Gross attendance rate (%)			Gross attendance rate (%)			Gender parity index
	Male	Female	Total	Male	Female	Total	
Urban	84.2	87.8	86	117.7	113.5	115.6	1
Rural	83.3	86.9	85	118	111.1	114.7	0.9.
Secondary Education							
Zone of residence	Gross attendance rate (%)			Gross attendance rate (%)			Gender parity index
	Men	Female	Total	Men	Female	Total	
Urban	33.6	43.1	38.3	56.7	66.9	61.8	1.2
Rural	21.8	34.1	27.3	39	53.2	45.4	1.4

Source: ODH/PNUD based on ENDESA 2002.

42 Alvarez, p.9

43 Alvarez, pp. 9-10.

Student flow and efficiency

Repetition and desertion (dropouts)

Through policy actions following the *Plan Decenal,* initiatives of the Inter-American Development Bank, and the special World Bank programme for basic education, the Dominican Republic made significant gains in internal efficiency (the progression of students through the system) from the exceptionally low levels in the late 1980s. From 1988 to 1998, the rate of graduation from grade 8 for a cohort of students entering the first grade increased from 23% to 53%.[44] The total numbers of years of schooling to produce a basic education graduate declined from 13.5 years in 1996 to 11.4 in 2002.

Table 2.4 **Indicators of internal efficiency of the public sector, in percent, 1980-2001**

Year	Promotion	Repetition	Desertion
1980-1981	74.5	15.9	9.6
1984-1985	65.0	16.7	18.3
1989-1900	56.9	16.6	26.5
1990-1991	62.4	13.8	23.6
1995-1996	70.6	11.9	17.5
2000-2001	85.1	6.3	8.2
2005-2006 [1]	84.8	6.4	8.8

Source: UNDP, p. 176, based on *Plan Decenal de Educación* (1992) and SEE.

Note*:*

[1] This refers to Secondary Education based on statistics from 2005-2006.

Nevertheless, internal efficiency remains lower than that of only a few countries in the LAC region (*e.g.* Ecuador and Guatemala).[45]

An analysis of census data in relation to data from the SEE illustrates the extent of the problem of repetition. A comparison of census data on repetition with the enrolment data shows repetition rates of more than 10% even for the first grades, despite the practice of automatic promotion in the first three years of education. Because of the known limitations of these data, these figures should be considered with caution.

[44] *Ibid*., p. 12.

[45] *Ibid*., p. 13.

Table 2.5 **Enrolment and repetition in basic education, Dominican Republic, 2002**

Age groups	Population 2002	Population adjusted	Grade	Enrolment	Number of repeaters	Gross enrolment rate	Percent repeaters
7	199 122	204 033	1	225 672	14 893	110.6%	6.6%
8	194 743	204 033	2	226 295	25 353	110.9%	11.2%
9	195 610	204 033	3	236 644	27 885	116.0%	11.8%
10	204 294	204 033	4	214 756	28 286	105.3%	13.2%
11	188 605	204 033	5	200 702	24 787	98.4%	12.4%
12	204 033	204 033	6	185 676	25 681	91.0%	13.8%
13	186 485	204 033	7	167 543	21 574	82.1%	12.9%
14	175 921	204 033	8	148 722	19 169	72.9%	12.9%
Total	1 548 813	1 632 264		1 606 010	187 628	98.4%	11.7%

Source: 2002 Census for data on population and repeaters; SEE for enrolment data.

Another way to analyse internal efficiency is to compare data on the years students spend in school and data on years of schooling actually achieved. These data are available from household sample surveys, conducted periodically in most Latin American countries using similar methodologies and collecting similar data, A study by Miguel Urquiola and Valentina Calderón, supported by the Inter-American Development Bank, finds that the Dominican Republic has a high rate of school enrolment for the population ages 6 to18 (91.1%, second only to Chile, with 93.1%).[46] At age 18, students in the Dominican Republic have been *in school* for 11.8 years, the third longest in the Latin American region, slightly shorter than Argentina and Chile. Despite 11.8 years in school, these students have had only 8.3 years *of schooling* because of the high rate of repetition. This compares to 10.4 years of schooling for Chile and 9.8 years for Argentina. Based on these figures, and compensating for the difference in countries about the education levels at age six, the authors arrive at an index of "effectiveness gap", in which the Dominican Republic had the largest gap (two years) for students at age 13 and one of largest gaps (three years) for students at age 18. Brazil had the largest gap of 3.7 years).

The report, *Objectives for the Millennium,* indicates that, according to cohort analysis, of every 100 children who enter formal education, only 75% completes grade 4, 63% grade 6, and only 52%, eight years of basic

46 Urquiola and Calderón, 2005.

education. The situation is worse in rural zones where most education centres do not reach grade 6.[47]

Disparities in internal efficiency among urban schools, rural schools, and schools with high levels of poverty

Alvarez analysed data from the SEE for not only urban and rural basic schools but also schools in high poverty on the margins of urban areas (Table 2.6).

Table 2.6 **Indicators of internal efficiency at the basic school level (*nivel básico*) (Percent)**

	1st Cycle			2nd Cycle		
	Urban	Marginal	Rural	Urban	Marginal	Rural
Distribution of enrolment	40.1	18.6	41.4	50.1	18.1	31.9
Annual Repetition	5.3	5.2	12.5	4.4	6.5	10.3
Annual Desertion (Dropouts)	8.8	11.7	12.4	10.5	14.1	14.1
Over-Age	36.0	39.0	44.0	46.0	48.0	59.0
Graduation Rate	80.0		60.0	65.0		45.0

Source: Alvarez, p. 16 based on analysis of data from SEE, 2002.

These data show that urban and marginal urban schools have generally similar rates of repetition in both the first and second cycles, but these rates are significantly lower than the rates in rural areas (12.5% for the first cycle and 10.3% for the second cycle). The rates of desertion (dropouts), however, for marginal urban schools and rural schools are similar and both are higher than urban schools. The differences in graduation rates are most significant. Eighty percent of students complete the first cycle in urban schools compared to only 60% in rural schools. Sixty-five of students in urban schools complete the second cycle compared to only 45% in rural schools.[48]

In summary, while the Dominican Republic has made significant progress in improving access, the country faces remaining problems, especially in improving access to the second cycle of basic education in rural areas. The country also must continue to improve internal efficiency: reduce repetition and desertion (dropouts), and increase graduation rates. Schools in rural areas and schools located in marginal urban areas require

47 *Objectives for the Millennium*, p. 3.

48 Alvarez, p. 16.

special attention. A failure to move students through the system on time in terms of age and grade level only compounds the education and social problem of over-age students at every level of the system. The actions necessary to address these problems relate to the quality of the education system as discussed in the following chapters.

Recommendations

- Continue efforts to broaden access to initial education, drawing on the programme funded by the World Bank.
- Concentrate on eliminating barriers to access for children who are not now in school for reasons of poverty, ethnicity, lack of birth registration or other barriers.
- Focus on getting young children into the initial level and the first year of basic education on time in terms of age and development.
- Target the areas with the lowest rates of retention, the highest rates of desertion, and the highest percentages of over-age students – especially rural schools and schools in high-poverty, urban fringe areas.
- Focus attention on the rural multi-grade schools (50% of rural schools) and extend and generalise the model implemented gradually since 1994, *Escuela Multigrado Innovada* (EMI). The number of students who took advantage of the EMI project was 52 596 at national level, thus representing 2.2% of the total national registrations. This model was inspired by the best practices of other countries such the new schools of Colombia, and it is used now in 50% of multi-grade schools.
- Recognise that significant improvements in retention, as well as reduction in over-age and desertion, depend fundamentally on improvements in quality, especially the quality of teachers and teaching and the conditions for teaching.

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Chapter 3. Quality: The Contrast between Intention and Reality

Chapter 3 analyses the quality of the education system in the Dominican Republic. Importantly, it discusses the contrast between the policy initiatives and improvements proposed by the government and the actual implementation of these initiatives in the education institutions themselves. The review team noted that the curriculum development process, the resulting new curricula and the intended implementation reflect the most progressive practice among developed nations. The new curriculum was developed by the National Council for Curricular Transformation. The reform efforts should have led to improved student learning. However, the realities of graduates' knowledge, skills and competencies did not reflect the expectancy of the newly-developed curriculum. The problems causing this contrast, including infrastructure conditions, working conditions for teachers, limited time available for instruction and limited use of the new approaches to teaching and learning, are discussed. The review team then outline their recommendations for development and improvement.

Intended curriculum

Following the directions established by the *Plan Decenal,* the Dominican Republic embarked on far-reaching process to develop a new curriculum. The curriculum development process, the resulting new curricula, and the intended implementation reflect the most progressive practice among developed nations. The driving force for change was the desire to transform the curriculum and the culture of the nation's education system to eliminate vestiges of the authoritarian past, and to develop the knowledge, skills and competencies of all students for full participation in an open, free, democratic country.

The latest edition of basic documents resulting from the curriculum development process in the late 1990s, demonstrates an impressive

understanding in the Dominican Republic of best practice in curricular design and guidance to teachers in the use of these materials. These include the curricula for the initial, basic and secondary (*nivel medio*) levels, and the curriculum for the sub-system for adults, as well as a guide for teachers (*Planificacion Effectiva de la Labor Docente)*.[49]

A National Council for Curricular Transformation led the extensive participatory process for the new curriculum. The Council included representatives of the Secretariat for Education (SEE), the Teachers Association (ADP), Presidents of Universities, representatives from the business sector, private schools, Catholic schools, student associations, as well as from Congress, NGOs, other International Organisations, IDB, UNDP, Churches and Unions. The intent was to ensure that the new curriculum design was not exclusively the product of the work of specialists, stemming from the logic of their particular disciplines, but that it also considered the perspectives of the broader society that was calling for change.

There were three types of consultations: Open, National and Internal, and Regional.

- The Open Consultation was intended to maintain links with the community, through which the school would construct a synthesis between every day knowledge, content knowledge, popular culture and universal culture. This continuous dialogue would allow the new curriculum to be open and receive support and feedback for its effectiveness.

- The National and Internal Consultations were made up of specialists and pedagogical professionals from the different areas of knowledge that converge into the curriculum. There were 17 Working Committees by levels: Initial, Basic, Middle, Adult and Special Education, and by areas of knowledge: Spanish Language, Foreign Languages, Mathematics, Natural Sciences and Technology, Social Sciences, Artistic Education, Physical Education, and Integral, Human and Religious Training. To the above Committees, special Committees were added, including: constructivist approach to knowledge, socio-cultural animation, orientation and psychology, and ethics. Each Committee had a team of specialists who produced a series of documents for discussion and critique by other consulting teams. All the work by the different committees culminated in a final workshop, held in December 1993, which validated a preliminary curriculum design.

[49] These documents and other important resources are available on www.educando.edu.do

- The preliminary curriculum design was then discussed at Regional, Municipal and District Consultations.[50]
- Careful attention was given to the steps necessary for successful implementation of the new curriculum design.
- Participation of all the different actors – teachers, students and members of the community – in an effort to ensure that the curriculum would contribute to the quality of education, and to oversee its development in practice.
- Preparation of the different actors for implementation (*e.g.* prepare teachers for increased responsibility in curriculum design and parents and other community members for new roles). The intent was to make curriculum development a permanent theme of all programmes of teacher professional development (in-service education, ISET). The emphasis of professional development was to be on discussion and enrichment, not simply on training teachers for uncritical adoption of the new curriculum.
- Provision for flexibility and capacity for revising the planning stages, readjusting according to what was achieved.
- Emphasis on efficient use of available resources.
- Planning and selection of different activities to develop the curriculum according to each level, complementing what is done at the central, district and school level.[51]

As indicated below, many of the implementation problems can be traced to a failure to follow these steps.

The curriculum was conceived as being open, able to include scientific and technological advancement.

The OECD team notes in particular two critical elements in the original implementation plans. First, teachers had the possibility of reorganising the content within each area, with creativity taking into account the needs of, and relevance to, each learning community. In other words, successful implementation required a significant change in the basic competencies of teachers to assume increased responsibility for curricular design and implementation at the classroom and school levels.

[50] SEE, *Fundamentos del Curriculum* 1994 pp, 1, 7-11.

[51] SEE, *Fundamentos del Curriculum*, 1994, pp. 7,8-9.

Second, the intention was that implementation of curriculum reform would be accompanied by a fundamental change in State oversight and supervision, moving away from control and inspection towards a new emphasis on support and technical assistance to teachers.

Evidence of student learning

Ultimately, one would expect that the curricular reform efforts in the 1990s would result in evidence of improved student learning. Unfortunately, the National Tests in the Dominican Republic are not designed for and cannot be used for longitudinal analysis (see Chapter 6 for discussion of the National Tests and monitoring student performance). Nevertheless, data from international assessments as well as the results from National Tests in relationship to expected levels of performance show a serious gap between the expectations of a new curriculum and the realities of graduates' knowledge, skills and competencies.

A study conducted in 1997 for grades 3 and 4, just as the new curriculum was being introduced (UNESCO OREALC),[52] provides a comparative perspective on academic achievement of students in the first and second cycles of basic education. The results of the LLECE (Latin American Laboratory of Evaluation of the Quality of Education) (Table 3.1) show that the Dominican Republic had an academic achievement below the mean for the region in both language and mathematics (the average results were standardised with an average of 250 points).

A further analysis of these results reveals significant differences in levels of learning of students from schools in the largest metropolitan area of Santo Domingo, other urban areas and rural areas.

[52] UNESCO OREALC 1998. *Laboratorio Latinoamericano de Evaluacion de la Calidad de la Educacion, LLECE, "Primer Estudio Internacional Comparativo sobre Lenguaje, Matematica y Factores Asociados en Tercero y Cuarto Grado".*

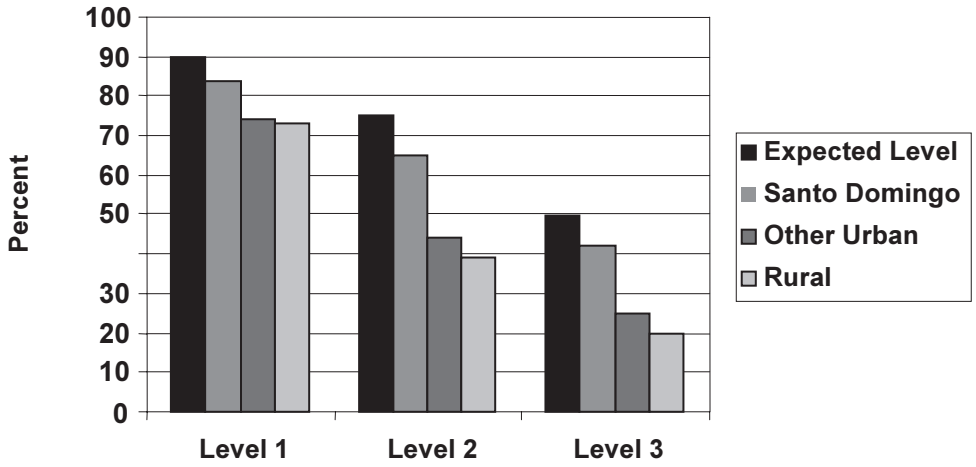
Table 3.1 **First international comparative study of language, mathematics and associated factors in grades 3 and 4.**

Countries	Language		Mathematics	
	Grade 3.	Grade 4	Grade 3	Grade 4.
Argentina	263	282	251	269
Bolivia	232	233	240	245
Brazil	256	277	247	269
Chile	259	286	242	265
Colombia	238	265	240	258
Cuba	343	349	351	353
Dominican Republic	220	232	225	234
Honduras	216	238	218	231
Mexico	224	252	236	256
Paraguay	229	251	232	248
Venezuela	242	249	220	226

Source: UNESCO OREALC 1998, Laboratorio Latinoamericano de Evaluacion de la Calidad de la Educacion, LLECE, *"Primer Estudio Internacional Comparativo sobre Lenguaje, Matemática y Factores Asociados en Tercero y Cuarto Grado*.

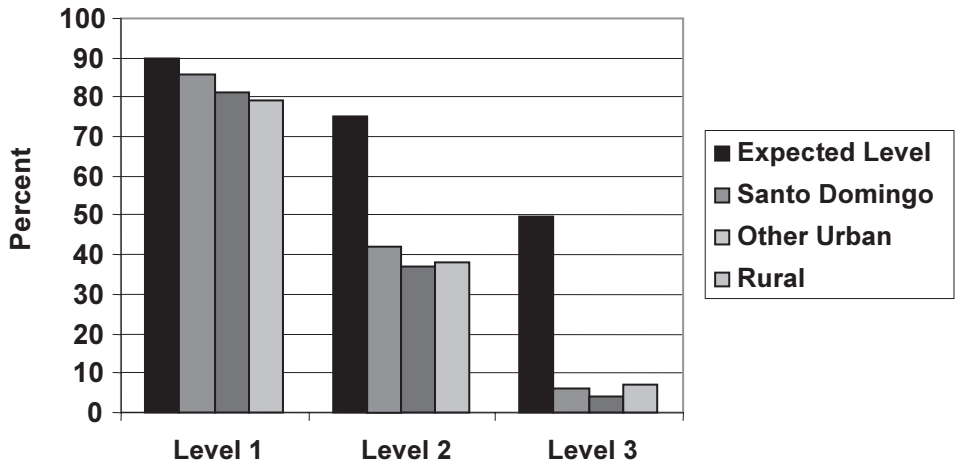
As shown in Figures 3.1 and 3.2, the performance of students in the Santo Domingo area was higher than that of students in the other areas, but still lower than the expected level in both language and mathematics. Of even greater concern is the lower percentage of students in both areas, but especially in mathematics, who performed at the highest level (level 3) in either subject area.

Figure 3.1 **Percent of graduates by level of performance in language**



Source: Valeirón, J. (2005) *Acceso, Permanencia, Progresión y desempeño de los alumnus: caso dominicano," II Foro Hemisférico, "Calidad de la Educatión*". Basilia, Brasil, analysis of UNESCO OREALC 1998, Laboratorio Latinoamericano de Evaluacion de la Calidad de la Educacion, LLECE, "Primer Estudio Internacional Comparativo sobre Lenguaje, Matematica y Factores Asociados en Tercero y Cuarto Grado."

Figure 3.2 **Percent of graduates by level of performance in mathematics**



Source: Valeirón, J. (2005) "Access, Permanencia, Progresión y desempeño de los alumnus: caso dominicano," II Foro Hemisférico, "Calidad de la Educatión". Basilia, Brazil, analysis of UNESCO OREALC 1998, Laboratorio Latinoamericano de Evaluacion de la Calidad de la Educacion, LLECE, "Primer Estudio Internacional Comparativo sobre Lenguaje, Matematica y Factores Asociados en Tercero y Cuarto Grado."

Results from National Tests

Over several decades, the Dominican Republic has debated the use of National Tests as a requirement for student promotion as opposed to diagnosis for the purpose of improving student learning. Prior to 1973, National Tests were used for promotion in line with the Government's strategies for central control. Beginning in 1974, the National Tests were abolished and promotion depended only on classroom evaluation. With the *Plan Decenal*, the National Testing System was restored to serve as a both diagnostic and a promotion instrument. The new National Tests were redesigned to reflect the new curriculum, starting in 1995. However, the grade 4 test was eliminated. As a result, the Dominican Republic has no national system for monitoring how the students are performing in the first cycle when essential literacy and numeracy skills are established (see Chapter 6 for further discussion of this issue).

The results of National Tests are low when compared with the cut off score of 65.

Table 3.2 **National test results, national averages in four curricular areas**

Level	Spanish Language	Mathematics	Social Sciences	Natural Sciences
Grade 8	57.5	55.8	48.1	53.0
Adults	53.7	50.1	52.1	51.9
Middle Level	53.3	57.7	54.0	52.2

Source: Background report.

At no level and in no subject area is the national average performance above the cut off score. These results are poor, but they raise a question of whether the tests and even the curriculum are appropriate for what can reasonably be expected of students, given the conditions in schools (see discussion of "delivered curriculum" below). The SEE publishes data on National Test results for each year, but as emphasised above, these tests are not designed to monitor changes over time. It therefore is impossible to conclude from existing data how performance may have changed since the implementation of the mid-1990 reforms.

As indicated earlier, the SEE has reduced the importance of the National Tests in determining student promotion from the initial 50% to the current 30%. Therefore, classroom evaluations by teachers now determine 70% of the basis for student promotion. A particularly interesting finding is that grades given by teachers are 17 points higher on the average than the results

from the National Test.[53] It is not clear whether these results reflect the lower importance of the National Tests in promotion or a misalignment of the tests with the curriculum as actually delivered in the classroom. The experience of other countries indicates that teachers tend to over-estimate their students' capabilities.

The OECD team is especially concerned that a significant emphasis on the current National Tests for promotion places a significant level of "blame" for low performance on the individual student. The reasons for low performance are far more complex (poverty, poor school conditions, lack of instructional time) as discussed later in this Chapter and in Chapter 6.

Results of study by the Concorcio de Evaluación e Investigación Educativa (CEIE)

The recently published results of a study of basic education in the Dominican Republic by the Concorcio de Evaluación e Investigación Educativa (CEIE) provide the first picture of student learning in the first cycle of basic education since the UNESCO OREALC international assessment in 1998.[54] The CEIE is a consortium of the three universities: the Instituto Tecnológico de Santo Domingo (INTEC), the Pontificia Universidad Católica Madre y Maestra en Santiago (PUCMM), and the University at Albany/State University of New York. The CEIE conducted an assessment of students in May 2005 of students in a national sample of 200 public urban, public rural, and fully accredited private schools throughout the Dominican Republic. A goal of the study was to determine the level of mastery of the objectives of the Dominican curriculum (the intended curriculum defined by the formal curriculum, textbooks and other materials) for grades 1, 2 and 3 by students in grades 3, 4, and 5. The focus was on two areas: reading comprehension and mathematics. The purpose was to determine the extent to which students had mastered the fundamental knowledge in the early years of basic school that is necessary for success in the subsequent grades.

The following is a summary of several key published findings from this study:

- In reading comprehension, of 21 questions using a variety of texts, the majority of students in grades 3, 4 and 5 could correctly answer only an average of 7.37 questions that were intended to be mastered

53 Alvarez, p. 22.

54 Concorcio de Evaluación e Investigación Educativa (CEIE) 2006, Bulletins Number 1, 2 and 3, USAID Dominican Republic.

in the curriculum at grade 3. On average, grade 3 students could answer only 5.62 questions, grade 4 students only 7.05, and grade 5 students only 8.95 questions.

- In mathematics, based also on the curriculum for grades 1, 2 and 3, of 35 questions, grade 3 students could answer on average only 5.9 questions correctly, grade 4 students only 9.02 questions, and grade 5 students only 11.94.
- These results show that students are not acquiring the fundamental knowledge in the first three grades intended as the foundation for learning in subsequent grades. Nevertheless, students do continue to learn, but on average they do not reach the expected level of grade 3 when they are in grade 5.
- In reading comprehension, there were significant differences in mastery between girls and boys. On average, girls were able answer 7.87 questions correctly, compared to only 6.9 for boys – a statistically significant difference of two questions answered between boys and girls.
- In mathematics, there is also a difference in performance of boys and girls, but the difference was not statistically significant.
- The students in accredited private schools showed average levels of learning significantly higher than students in public schools. The range of performance among private schools was wide, but the performance among public schools, both urban and rural, was more homogeneous.
  - In reading comprehension, public school students in grade 5 on average did not achieve the levels of learning that private school students achieved on average in grade 3. The average level achieved in grade 5 for public schools was lower than the performance of 75% of students in private schools.
  - In mathematics, the situation was similar. The students finishing grade 5 of both public urban and rural schools did not obtain better on average than private school students in grade 3. The differences between public and private schools were statistically significant, but the differences between urban and rural public schools were not.
- In a more detailed analysis of the results in mathematics, the results showed low levels for all types of schools and all grades in learning in basic areas of natural numbers, fractions and decimals, geometry

and measurement. There were significant differences, as indicated above, in the average performance of public and private schools.

These results are striking evidence of the deficits in student learning in the Dominican Republic's public basic schools, the schools that serve more than 80% of the nation's young children. Subsequent reports from the project will provide greater insights regarding the differences among schools based on the background data collected in conjunction with the assessments. Two points are important to note:

- The differences in performance of students in public urban and rural schools are not as great as one might expect, given the differences in repetition, desertion (dropouts), and other conditions cited earlier in this report. These results suggest that the problem of quality in the first cycle of public basic education is much more pervasive and systemic than the result of specific problems in one region or another. It is important to note that the sample for this study included only "complete" rural schools with first through eighth grade. It did not include multi-grade or "incomplete" schools (*e.g.* schools with only the first four grades) which are the majority of the schools in rural areas.

- Young boys are falling significantly behind young girls in the critical area of reading comprehension, a problem that will only become more serious as boys attempt to advance in the system. The OECD team strongly supports the efforts of the Dominican Republic to address problems of gender equity for women, especially at higher levels of the education system. Nevertheless, a failure of boys to learn and make progress in the education system has serious educational and social implications. How schools are equipped to address clear learning and developmental differences among students is a critical issue for the Dominican Republic, as it is for other countries.

Performance in public and private schools

Private schools are an important dimension of the Dominican Republic's education system. However, one should not interpret the reporting of differences between public and private schools as a case by the OECD team for increased Government focus on private schools as a means to address the nation's *public* obligations. The OECD team firmly believes that the Dominican Republic must focus on strengthening the *public* schools – the schools that serve most of the nation's children.

A basic message from the CEIE study is that the vast majority of students in these public schools (as well as many private schools) are not learning the fundamentals needed to make academic progress. In fact, a failure by the Dominican Republic to narrow the difference between public and private school performance is likely to exacerbate further the growing divide among income groups within the country.

Private schools have privileges that public schools do not and should not have, especially to charge tuition and fees and thereby generate the resources necessary to pay higher teacher salaries and provide essential learning resources. Private schools tend to enrol students from higher income families with higher levels of education, both of which give these students a distinct advantage compared to the vast majority of students in the Dominican Republic.

Nevertheless, many private schools have characteristics which public schools should have: well-trained, competent teachers who are paid at levels that reflect their professional standing, extensive engagement of parents in the education of their children, adequate learning resources (textbooks and other instructional materials), more instructional time, and safe and supportive learning environments. The CEIE study as well as other studies can provide valuable insights into the characteristics of schools, both public and private, that contribute to student learning.[55]

As noted in Chapter 6, the OECD team was especially impressed by the polytechnic schools. These 55 schools are independent from regular public schools but receive public subsidy and are accountable to and under the oversight of the SEE. They must serve students without regard to family income. They have the key capacities not available to the regular public schools: to select their teachers based on character, motivation, and competence independent of political considerations, and to select and retain students based not on family income but on their commitment to learn and abide by basic expectations regarding discipline and social behaviour.

Student learning in preparation for university-level study

The students who successfully complete secondary education with the *bachillerato*, indicating that they have successfully passed the National Test for the secondary cycle of the middle level and have received necessary classroom evaluations, are eligible for entrance to the Autonomous University of Santo Domingo (UASD) and other public institutions. Serious questions remain, however, about whether these students are prepared for

[55] Murray, 2005

university-level study. As discussed later in this report, large numbers of students fail or drop out of the university. The remedial work necessary for these students to reach university-level preparation distracts tertiary education from its proper functions and is also an inefficient use of limited resources.

Preliminary results from an assessment test developed by the State Secretariat for Higher Education, Science and Technology (SEESCyT) reveal significant gaps in the preparation at the secondary level (*nivel medio*) for university-level study. No statistics are available on the socio-economic characteristics of students in the public and private universities, but a comparison of the preliminary results reveal significant differences likely attributable to the quality of students' prior education. The test, called IAUD (*Inteligencia Académica Universitario Dominicano*, also known as POMA (*Prueba de Orientación y Medida Académica*), seeks to measure:

- Contents (in verbal expression, mathematics, space-structural concepts, natural sciences, social sciences and personal behaviour and maturity).
- Mental processes (the mastery of basic knowledge, instruments and skills to work properly in tertiary education, the mastery of academic skills needed for successful learning, reasoning ability, mental flexibility and problem-solving ability).
- A series of cognitive competencies and skills.[56]

The IAUD was initially administered to a sample of 592 students entering four private tertiary education institutions and two groups of students entering two campuses of the UASD, one in the capital city of Santo Domingo, and another in a provincial location. The main results are given in Table 3.3.

[56] SEESCYT, 2005.

Table 3.3 **Test results of IAUD-2a Psychometric Test, 2005**

	Sample size	Verbal contents	Math contents	Space and structure	Natural sciences	Social sciences	Behaviour
INTEC - Instituto Tecnológico de Santo Domingo	29	7.41	6.31	6.76	4.65	5.03	6.79
APEC - Universidad APEC	60	6.17	4.89	5.17	4.28	4.03	6.22
UNICDA - Instituto Cultural Dominico Americano	30	5.28	4.89	4.83	4.25	4.25	5.79
ITECO - Inst Tecnológico Cibao Oriental	22	5.00	4.32	3.82	3.27	3.68	5.27
UASD - Universidad Autónoma de Santo Domingo – SD	270	5.01	3.65	4.07	3.47	3.18	5.49
UASD - Universidad Autónoma de Santo Domingo – Ext	181	4.92	3.46	4.00	3.03	2.88	5.23
Total	592	5.33	3.98	4.37	3.56	3.40	5.60

Source: SEESCyT, Resultados del Análisis de Psicométrico de la forma IAUD-2a, 2005.

The study revealed a clear stratification between students in public and private institutions, with the candidates of INTEC obtaining the highest scores in all dimensions of the test, and the candidates of UASD getting the lowest, a clear indication of the different quality of the education they received previously. In 2005, the authorities at UASD applied the test to 11 000 students entering the University, and found that 55% did not meet the minimum requirements necessary for university-level studies. To deal with this situation, the university is starting to provide levelling or remedial courses to these students. It should be noted, however, that the first two years of studies at UASD are already dedicated to a basic cycle aimed at providing the students with the knowledge and skills they should have developed at secondary school.

The realities in schools: the "delivered" curriculum

The evidence on student learning and the OECD teams' observations of classrooms during the school visits, and interviews with teachers and education personnel at all levels of the system, disclosed a great divergence between actual practice and the goals of either the *Plan Decenal* or the new curriculum. A stark contrast exists between intent and reality of implementation of changes in critical areas such as the roles of teachers in curricular design, democratisation of school governance, and changes in supervision and monitoring.

A significant, long-term, systemic under-funding of the nation's education system underlies many of the problems of implementing changes. Lacking the needed public resources, the Dominican Republic attempted to accommodate demand through a system that lacked even the most basic resources of adequately trained teachers, sufficient numbers of classrooms, availability of basic teaching resources such as textbooks, and a management structure sufficient to ensure appropriate resource allocation, policy implementation and system monitoring.

The nation's education leaders recognise the implementation problems. In an effort to understand the results of the National Tests, for example, the SEE Curriculum General Directorate in 2000 and 2001 developed the Programme Accompanying Curricular Development in the Classroom. The experience in 187 schools provided evidence about the difficulties encountered by teachers in planning and guiding the learning process of their students. There was little coherence between what was planned and what was implemented and between planning and the current curriculum. The lack of articulation between goals, curricular content and strategies applied constituted a great obstacle for adequate student learning to occur at the classroom level. This programme confirmed the use of mainly written materials to support the learning process, and little usage of new technologies. On the positive side, the programme noted a strengthening of student motivation to learn, and an increase in student participation in learning practices when teachers are confident about their content knowledge and teaching skills.[57]

At a meeting of the OECD team at the unit of the SEE responsible for the basic level, one educator commented, "The teachers have not assumed the 1995 curriculum, it has not entered the classroom, and there are no noticeable changes. After working 20 years in education, I see no clear achievements". According to another professional from the same unit, "Teachers do not understand the new curriculum", and yet another insisted, "It is the lack of tools to implement the curriculum that constitutes the main problem". The OECD team recognises that these are only opinions of individuals and that they do not reflect a systematic assessment. Clearly, progress has been made – albeit not to the extent that is needed. Nevertheless, in the course of the OECD team's visits at the regional and district levels, professionals responsible for supervision and monitoring of schools expressed similar concerns about the gap between the intended curriculum and the realities of school level implementation. The SEE has undertaken systematic assessments of the conditions in schools at the initial and basic levels and the subsystem for adults. These reveal more positive

[57] Valeirón, 2005.

views regarding implementation than reported informally to the OECD team. Nevertheless, the results underscore the need for improved capacity in the areas of curricular competencies, planning of the education processes, and education strategies.[58]

One could attribute the implementation problems in part to the scale and timing of the changes. The Dominican Republic attempted to bring about massive, system-wide changes within a relatively short time. Other LAC countries such as Chile implemented similar changes with greater implementation success through a gradual process of one grade per year. In the case of the Dominican Republic, the expectation was that teachers would promote new pedagogical practices in accordance with the new curriculum, and that they would have time to discuss and present solutions to specific problems arising from the school; to reflect, plan and assess their practices in teachers meetings; and systematise their good practices. From the beginning, the adaptation of the curriculum was to be a radically decentralised process, yet the SEE used centrally defined regulations to spell out in great detail how this process was to take place. As an example, the Proposal for Curriculum Transformation/*Propuesta de Transformacion Curricular* defined percentages of participation of stakeholders from the schools and community required to participate in the definition and adaptation of the curriculum. This was a difficult task in a system that traditionally had been totally centralised from an administration point of view and where there had been no previous systematic experience of community participation.[59]

The shift system

To accommodate increased demand within the constraints of significant under-funding and inadequate facilities, the Dominican Republic implemented a shift system (*tandas*). Forty-five percent of basic schools in urban areas operate with three shifts and the remaining 55% function at education centres in two shifts, with a mixed offer of both basic and secondary levels. The morning, afternoon and night shifts allow greater schedule flexibility to respond to student and parent needs. The system provides more opportunities for young students who need to work during the day and then attend evening sessions. It also provides greater flexibility for child care responsibilities for young women. Students aged 14 and older

[58] SEE: "*Resultados del Proyecto de Trabajo Conjunto de Acompañados/as y Acompañantes: Análisis General*".

[59] Alvarez, p.4.

who previously dropped out of school also may attend adult education programmes offered during the evening shift.

Despite the benefits of the shift system, it presents serious problems for the system. Teachers usually work in two shifts or even three. Often their assigned shifts are at different schools and consequently they have to move from one school to another in the short time between shifts. This situation has an impact on the completion of exact schedules and legally defined school calendars. Each school shift has a separate school director and there is no unified administrative structure for the education centre overall. This gives rise to problems regarding cleanliness and the use of materials and teaching equipment on the changeover of the shifts. Consequently, schools are overcrowded, there is noticeable congestion both inside the classrooms and during recess time in the outside spaces, as well as over-usage of the infrastructure that is quickly deteriorating.

Conditions of schools

The OECD team observed a significant difference between public and private schools and schools serving low- and high-income areas in the condition of facilities. The infrastructure of public education centres which serve more than 80% of the nation's basic education population are in substandard condition. Many of the schools lack basic instructional resources (access to textbooks, basic audio-visual equipment, spaces for teachers, administrators and parents to meet, etc.). The public education centres in low-income areas visited by the OECD team were over-crowded and in need of basic maintenance – broken light fixtures, cracked walls, and heavily used and poorly maintained exterior areas. The exceptions to this pattern were the polytechnic schools, which are state-funded but managed by religious orders. These schools must accept all students regardless of family income, but they have the authority to hire teachers, establish teaching conditions, and expel students for disciplinary reasons. These schools were well maintained compared to public schools serving similar low-income areas. Generally, other public schools in higher income areas visited by the OECD were better endowed and had more modern buildings and premises.

Time available for instruction

There is a striking contrast between the expectations of the formal basic school curriculum and the realities of instructional time. Minimum coverage of subjects is calculated at 25 "classroom hours" (of 45 minutes each) per week. When break-time is added, the shift would need to be a minimum of 4

hours to provide minimum coverage. Nevertheless, there is considerable evidence of erosion of time allocation, particularly in the afternoon shift. The findings of a Gallup Poll survey in spring 2005, under the auspices of the SEE and EDUCA,[60] came to the startling conclusion that the real time for teaching amounted to only 65% of the prescribed time, that is, about 2.6 hours per day. A detailed examination of the survey would suggest that this was too harsh a calculation, but it is clear that the learning time of pupils in school is much less than is intended by formal policy. The SEE indicates that the study led to a decision to extend the school calendar, increasing the number of days and the number of hours in the school day, but the OECD team is uncertain whether these changes have been implemented.

School closures and teacher absenteeism

A rather casual approach to school closure has also been part of the tradition, while teacher absenteeism may be as high as 10% on any day.[61] The Teachers' Statute of 2003 seeks to address this issue and specifies teachers' time obligation regarding class-contact time and school time. However, old habits die hard and it will take some time for administrative arrangements to ensure full compliance with the intended school calendar. It is possible that the use of a performance incentive, as set out in the statute, could improve compliance. The new statute also sets out formal regulations for teacher leave, which should also act as a steadying force for maintaining the school year. Pupil attendance hours tend to be longer in the private school sector. Issues related to teachers and the teaching career are discussed in greater depth in Chapter 5.

Over-age students

As a consequence of the rapid expansion of access, large numbers of students at both the basic and middle level enrol at grade levels lower than appropriate for their age. The reasons differ by grade level and region. In rural areas, students tend to enter basic school at an older age and therefore there is a high percentage of over-age students in the first grade. Forty-four percent (44%) of the children in the first cycle of basic education in rural

60 EDUCA, *Acción para la Educación Básica*, Inc. [Action for Basic Education, Inc] is a non-governmental, non-profit organisation headquartered in the Dominican Republic, founded in March 1989 and incorporated under Resolution 286-89 of July 31, 1989 by a group of business people interested in contributing to the imporvement of the reach and quality of basic education in the country.

61 Gallup Poll, 2005.

schools are three or more years older than the expected age for their grade level, and 60% of rural students in the second basic cycle are older than the expected age for their grade. The rate of repetition in both urban and rural schools is highly correlated with the percentage of over-age students. The percentage of over-age students increases sharply at the beginning of the middle-level, to 50% or more because students who previously dropped out are returning to school.[62]

The high percentage of over-age students presents serious pedagogical and social challenges. From the teacher's perspective, it is a challenge to meet the diverse student needs in relatively large classes even under the best of conditions, conditions which definitely do not exist in the public schools of the Dominican Republic. The social, discipline and other problems of over-age students, especially at the middle-level, are also serious.[63]

The OECD team was concerned to see education centres serving students at multiple age levels from young children through adults in different shifts in over-crowded, deteriorating facilities that allowed for little separation among distinctly different student populations. In the schools visited by the OECD team, there was literally and figuratively little "space" for teachers responsible for different "schools" within a single education centre to meet with each other, the school director or parents to discuss ways to meet the unique needs of their students. In contrast, many developed countries deliberately separate schools responsible for students of different age levels with different learning needs and levels of social development (*e.g.* basic schools for students age 6 to 11, middle-schools for young adolescents aged 11 to 14, and high schools for students age 14 to 18). Different rates of academic and social development of girls and boys present significant challenges in the organisation of appropriate schooling.

Working conditions for teachers

In addition to the problems posed by inadequate classroom infrastructure and the nature of the shift system, teachers in the public school system encounter other difficult working conditions. Pupil-teacher ratios tend to be high in the public sector, compared to the private (19.9) and

62 Alvarez, pp. 16-17.

63 The data available to the OECD team on the numbers and percentages of over-age students predated significant initiatives to address the needs of these students, such as the Programmes for Accelerated Education (*Programas de Aceleración Educativa*). The SEE indicates that the number of over-age students has been reduced significantly in recent years, although the challenge of serving these students remains.

the semi-official (21.7) sectors.[64] As in other countries, discipline problems can be seriously linked to violent sub-cultures and the abuse of drugs, particularly in economically deprived areas. These are not conditions that will attract and retain well-trained, highly motivated teachers.

Adequacy and efficiency in use of resources

The State provides public education free, yet there are insufficient resources to fulfil the commitment to quality that free access should entail and resources are not always used efficiently. The State Secretariat of Education recommends that the Parents Association and the Board of Centres, as opposed to the Directors of Centres, manage the funds intended to schools. The State commits itself to provide textbooks, teaching resources and classroom equipment, but the reality is that the supply of these resources is insufficient to the needs, and the shortages impinge directly on teachers' pedagogical approaches. In some cases, scarce public resources are not well-used.

Conditions in rural schools

The conditions within rural schools, in addition to the external conditions of poverty and geographic dispersion of the population, have a marked impact on rural rates of access, repetition, desertion (dropouts) and graduation. More than 50% of the rural schools are multi-grade, with an average of 24 students per school, where one teacher in the same classroom teaches students from different grades. 70% of rural schools offer only the first cycle (grades 1-4) and opportunities for students to complete basic education are not available.

Limited use of new approaches to teaching and learning

There is a significant gap between the reality of classroom life and the intent of the curriculum of having pupils engage "critically, creatively and productively" with the curriculum content. The limited instructional time in school as mentioned earlier is a problem, but an even more serious issue is the quality of the education that students experience during that time. In general, the teaching observed in the course of the OECD review was traditional and the only didactic materials used were textbooks. Although textbooks were available in the classrooms observed, there were not enough for all the students, and groups of students had to share a textbook. Most of

64 Alvarez, 2004.

the classrooms visited were crowded and students sitting at the back of the room had difficulty seeing the washed down blackboards. The teacher of a grade 4 class had students copy 50 times the sentence, "*En un dia como hoy Cristobal Colon descubrio America*," as a way to celebrate the anniversary of the arrival of Colombus to Santo Domingo. Another classroom visited by the team was silent while following the directions written on the blackboard, "*Ciencias Naturales. Copiar la pagina 25*." The teacher was absent and the mother of a student in the classroom was asked to substitute. An English teacher at the middle level was excited to have the chance to speak with native English-speakers because he rarely had such an opportunity. His only instructional materials were the textbook and the use of a blackboard. He had no audio equipment that would allow students to hear or practice English.

In summary, the OECD found a stark contrast between the progressive thinking and bold intentions of the *Plan Decenal* (both the 1992 plan and the plan for 2003-2012), the new curriculum and other policy documents of the past decade, and the realities of low levels of student learning and serious deficiencies in basic conditions for teaching and learning. A basic lesson of the past decade is that bold initiatives and massive changes implemented too quickly without adequate support and without a commitment to sustained step-by-step implementation are not likely to yield improvements in student learning. Experience with implementing curriculum reform in other counties emphasises the need for a phased approach that allows time for professional development and other necessary components.[65]

Recommendations

1. Implement the interventions outlined in the document, Objectives of the Millennium for initial and basic levels.
2. Focus first on grade-by-grade reforms to establish the fundamental conditions for learning in all public basic schools: a full five-hour day, qualified teachers recruited and compensated for a full teaching load, textbooks delivered on time, parents engaged in their children's education, and clean, welcoming learning environments.
    - Set a goal that by 2011 all students who complete grade 4 in all public basic level schools will have mastered reading comprehension and mathematics at the level expected for completing the first cycle. Set another goal that most students will be at the grade level appropriate for their age.

[65] See examples from Chile, OECD, 2004 and Romania, Colan, Crisan *et al*., 2000.

- Begin grade-by-grade improvements at two levels simultaneously starting at grades 1 and 5 (*e.g.* 2007, grades 1 and 5; 2008, grades 2 and 6; 2009, grades 3 and 7; 2010, grades 4 and 8).
- As another alternative, gradually reduce the number of shifts to two per school with each shift lasting five hours. Gradually reorganise teachers so that they work in only one level and in the same school. Set basic standards for schools (basic conditions, equipment, teaching materials, etc.).
- Begin at the basic school level to rebuild the teaching career in the Dominican Republic. Provide substantially increased compensation with incentives for performance for highly qualified teachers. Begin on a grade-by-grade basis following the sequence outlined above.
- Provide targeted funding and special support for areas of high poverty and exceptionally low performance.
- Establish a goal to implement the model of Escuela Multigrado Innovada (EMI) in all rural multi-grade schools by 2011.
- Ensure that all students in rural areas have access to the second cycle of the basic level and that all rural schools benefit from the multi-grade and/or grade-by-grade, year-by-year reforms.
- Engage the parents of every child in the education of their children. Provide targeted adult education assistance in reading comprehension and mathematics to parents to prepare them to support their children in school.

3. Establish an assessment at the end of the first cycle of the basic level as a component of the National monitoring and evaluation system (see Chapter 6).

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Chapter 4. Preparation of Youth and Adults for the Labour Market and further Education

The emphasis in Chapter 4 is on the importance of the goal of significantly strengthening the capacity to prepare students for both the labour market and further education. The vital nature of this preparation is underscored by the fact that the Dominican Republic will be less and less able to compete with other countries on the basis of low-skill, low-wage jobs in the future. The emphasis will be on high-skilled labour and the country must be able to compete on this level. The current level of this preparation in the education system is discussed, as well as the attendant problems. The chapter then continues with a discussion of initiatives which are currently being implemented to improve the preparation of students for both the labour market and higher education. The team then gave its recommendations.

The formal and informal institutions for preparing youth and adults for the labour market and further education are critical elements of the Dominican education system. As emphasised in the previous Chapter, the OECD team believes that the Dominican Republic must continue to focus on Goal Two of the Millennium Development Goals – above all, to get more Dominican youngsters through initial and basic education to far higher levels of knowledge and skill. Nevertheless, the Dominican Republic must also strengthen significantly the capacity to prepare students for both the labour market and further education.

In developed nations, there is an increasing convergence in the competencies required for employment in living-wage occupations, and those required for higher education level study. These competencies align directly with a strong general education curriculum. Employers emphasise basic requirements in written and oral communication, reading, quantitative reasoning (mathematics), problem solving, and "soft-skills" such as teamwork and work-habits. The trend is for standards and curricula at the secondary level to emphasise preparation of students for both higher education *and* entering the labour market, not education *or* the labour

market. Even if students do not enter higher education immediately upon completing secondary education, they should have the basic knowledge and skills necessary to pursue careers in which they can earn a living and advance in their careers through lifelong learning.

The emphasis on a higher level of general competencies (*e.g.* mathematics, reading, writing etc.) for *all students* is especially important for countries such as the Dominican Republic whose economies are so closely linked with the United States and, increasingly, other developed economies in Latin America, Europe, and Asia. As time goes on, the Dominican Republic will be less and less able to compete with other countries on the basis of low-skill, low-wage jobs. The decline in the textile industry is a prime example. The key will be for the Dominican Republic to compete on the basis of the high skill levels of its population. Jobs that previously required only basic literacy and the willingness to work hard in jobs such as the construction industry increasingly require employees to master the context and skills covered in algebra, geometry and trigonometry as well as advanced technical reading skills.

The clearest example of the change from low-skill to higher-skill employment can be found in the *maquiladora* manufacturing and assembly operations on the Mexican border with the United States in cities such as Ciudad Juarez. In these locations, corporations have preferential trade and tariff rates on the assembly and manufacture of products based on materials originating in the United States and then exported to the United States in completed form. These locations are no longer competing on the basis of low skills. The fastest growing sectors in Juarez are now in areas such as automotive parts, equipment and accessories, electronics, electrical services and materials, and services. The Mexican State of Chihuahua is investing 50% of its budget in education and the region's education and training institutions are keys to its ability to attract new employers (Ciudad Juarez*)*.

The OECD team's interviews with employers and INFOTEP, which has extensive interaction with employers, underscored that the same developments are occurring in the Dominican Republic. In the tourist industry, for example, employers are seeking individuals with at least a secondary education because this is an indication of the level of general knowledge needed to complete job-specific training.

The following is a review of the OECD's observations and findings regarding the capacity of the formal and informal education and training institutions in the Dominican Republic to provide students with the significantly higher levels of knowledge and skills required for the country to compete in the global economy.

The OECD team's overall assessment is that, at present, the formal middle-level system in the Dominican Republic is preparing students neither for tertiary education nor for the labour market. This is especially the case in terms of preparing students with the higher levels of knowledge and skills needed for a living wage job and career. The evidence regarding preparation for tertiary education has been clearly documented. The evidence regarding the labour market is more anecdotal, derived from the team's visits with schools, interviews with employers, and meetings with the technical/professional directorate of the SEE, the staff of European Union-sponsored project PRO-ETP (*Programa de Apoyo al Desarollo de Educación Técnico Profesional*), and INFOTEP (*Instituto Nacional de Formación Técnico Profesional*). The non-formal system operated through INFOTEP is strong, but the team is concerned that it could be linked more effectively with the formal system (see below).

Middle-level (secondary) education

Structure

The middle level includes a first cycle of two years of general education followed by two years in one of three modalities: general, technical-professional or the arts. The structure of the middle level and the distribution of time in the school year are displayed in Tables 4.1 and 4.2.

Table 4.1 **Structure of the Secondary Level**

Cycles	Modality	Specialties
First cycle (General)		
Second cycle	General	
	Technical/Professional	Industrial sector Agricultural and livestock sector Services sector
	Arts	Performing Arts Music Visual Arts Applied Arts

Source: SEE, "*Curriculum para el nivel medio*" (Curriculum for the middle level), *www.educando.edu.do*.

The curriculum for the middle level was substantially revised in the late 1990s. As is the case for the other curricular areas, the formal documentation available in the SEE website reflects the current thinking

about secondary curriculum found in many developed nations. Not unlike many nations in the past, the secondary education system is designed to prepare students *either* to pursue higher education (*nivel superior*) *or* to enter the labour market. As described below, however, the OECD team had concerns about the curriculum for the technical professional modality. The EU-funded project PRO-ETP has focused on updating the curriculum for selected middle-level technical-professional programmes.

Table 4.2 **Time allocation of the school year**

Secondary level	Number of hours per week	Total hours per grade	Total hours per cycle
First cycle	30 hours	1 290	2 580
General and Arts	30 hours	1 290	2 580
Technical and professional	35 hours	1 505	3 010

Source: SEE, "*Curriculum para el nivel medio*" (Curriculum for the middle level), *www.educando.edu.do*.

General curriculum in the first cycle

The general modality in the first and second cycle enrols approximately 90% of the middle level students. Fewer than 10% enter the technical-professional modality in the secondary cycle.

All students presumably complete the same first cycle of the middle level. Because there is no assessment at the end of this cycle, no data are available on whether students have mastered the intended curriculum, especially the key areas of mathematics and reading, before they enter a modality in the second cycle or drop out in the hope of finding a job.

General modality in the second cycle

The curriculum in general modality in the second cycle of the middle level is designed as the foundation for students entering higher education.[66] Yet many of these students do not go on to higher education. Only an estimated 17% of the country's population age 18 to 24 is enrolled in tertiary education, a level which compares to a range of 14 to 33% in most LAC countries with the exception of higher rates in countries such as Argentina, Uruguay and Chile.[67] It is reasonable to assume that a significant

[66] SEE, curriculum for the middle level, 12.1. *Función de la modalidad*, p. 92.

[67] SEESCYT, 2005a.

number of students finish the second cycle (or drop out before finishing) with no specific training for the labour market.

Preparation for tertiary education

In terms of preparation for tertiary education, the results of the POMA assessment cited in Chapter 3 show that students entering universities, especially those entering UASD, are seriously under-prepared for this level of study. Most of the students entering higher education graduated from public middle-level schools. Students entering private institutions are better prepared, but these students are more likely to have attended private middle-level schools.

There appears to be a significant difference between the curriculum and assessments in the general modality leading to the awarding of the *bachillerato* and the actual requirements for tertiary-level study. As emphasised in Chapter 3, the issue may be a significant gap between the *intended* curriculum for the general modality that the *delivered* curriculum, a difference that can be attributed to significant deficits in teacher qualifications, learning resources, and other conditions. These are issues that the Dominican Republic must address.

Preparation for the labour market

As pointed out above, a significant proportion of the students in the general modality clearly enter the labour market with only general knowledge and skills (assuming that even these have been mastered). Less than 10% of total middle-level enrolment is the technical/professional modality, a percentage lower than all other LAC countries except Brazil. These countries vary significantly, however, in percentage of enrolment in upper secondary education (ISCED 3) enrolled in technical/professional programmes, from over 80% in countries such as Argentina and Guatemala to levels below 10% in Brazil and the Dominican Republic. Most countries have percentages from 20 to 30 %.[68] As middle-level enrolments have increased in the Dominican Republic, the percentage of students entering the technical/professional modality has been decreasing.

Other countries are experiencing a similar shift of secondary-level enrolment toward general programmes that prepare students for entry to higher education. The exceptions tend to be in countries such as Germany that have had a long tradition of strong vocational/apprenticeship programmes. Several forces are leading to these trends:

[68] UNESCO Institute for Statistics, data for 2003-2004.

- Parents and students often view vocational/technical programmes as of lower status and quality compared to academic programmes leading to a higher education credential. The reality is that students entering these programmes tend to be from low-income families and have weaker academic preparation. The technical/professional track generally prepares students for low-wage jobs, thereby perpetuating low-income class distinctions.

- Parents and students as well as employers may perceive the quality of the technical/professional programmes to be low and out-of-date in relationship to needs of the labour market.

- Weaknesses in the labour market overall may signal to students and parents that job-specific training will not ensure employment and that pursuit of a higher education credential will lead to greater long-term independence and potential for a higher paying job.

These same conditions are clearly evident in the Dominican Republic. The OECD team observed the following in its visits to schools and interviews:

- The curriculum appeared out-of-date and not aligned with the changing expectations of the labour market.

- Outdated and limited supplies of equipment and facilities meant that students had limited opportunities to learn new technologies. A large class of young women learning how to sew on antiquated machines was not a reassuring sign. Schools had limited, if any, access to computers. Most of the schools visited by the OECD team did not have internet access so students did not have opportunities to learn web-based technologies.

- Opportunities seemed limited for combining work experience (*e.g.* apprenticeships or internships) with classroom learning.

- The team heard consistent reports that employers in the Dominican Republic, especially those likely to be offering higher-wage jobs, are increasingly seeking employees with the competencies commonly associated with a general education. Students completing the current technical/professional modality are likely to be trained for jobs that either no longer exist or pay less than a living wage.[69]

[69] ENDECA 2003, *Encuesta Nacional de Demanda de Capacitación* – National Survey of Demand for Training.

- Contacts with employers for curriculum development, providing on-the-job experience for students, providing up-to-date equipment, and other purposes, were limited.
- The connections with the informal training network, INFOTEP, were weak.

EU-Supported PRO-ETP Project

The problems in capacity of the formal system of technical professional education were clearly diagnosed by a project funded by the European Union, the PRO-ETP (*Programa de Apoyo al Desarollo de Educación Tecnico-Profesional*). This five-year project, which began in 2002 and ended in early 2007, has been providing technical assistance and support to strengthen the formal technical-professional system. It has been working in close co-ordination with and support of the Technical and Professional General Directorate (DGETP) of the SEE. The major components of the programme are to define a new strategy for the development of technical-professional education, transform the curriculum, improve equipment in the workshops and laboratories, train teachers, strengthen the basic institutions including the DRETP and the various technical professional centres throughout the country, and to strengthen the links with the productive sector and society in general.

In the first phase, the project selected four pilot centres, two in Santo Domingo, one in Barahona and another in Bonao. In the second phase, the project selected another nine centres. Three of the original centres are polytechnics (*politécnicos*) (see discussion in Chapter 6 regarding these institutions), and the other is a technical lyceum (*liceo*). The intent of these centres is that they will establish far stronger links between formal technical-professional education with both regional employers as well as the informal training capacity provided by *Instituto Nacional de Formación Técnico Profesional* (INFOTEP).

The team had an opportunity to visit one of these centres and noted in particular the increased connections with regional employers and the collaboration between the formal secondary school and the nearby INFOTEP centre.

The PRO-ETP project was also in the process of developing a National Qualifications Framework, drawing on the models from other countries. Such a framework could provide an important means to strengthen the communication between employers and the education system as well as to raise the expectations regarding the competencies that *all* students must have both employment and further education.

The OECD team did not determine at the time of the review the level of commitment within the SEE to sustain the initiatives of the PRO-ETP project after it is completed in 2007. In particular, drawing on the work of this project, the Dominican Republic could:

- Develop a National Qualifications Framework, to provide guidance for the whole education system, not only technical and professional education.
- Strengthen the links between formal technical and professional education and both employers and the informal training capacity of INFOTEP.
- Use the pilot centres as a model for strengthening regional co-ordination between formal technical professional education, INFOTEP and regional employers and economic development.
- Strengthen national co-ordination, especially between INFOTEP, SEE and SEESCyT. Nowhere in the Country Background Report or in the priority statements of the Government is there mention of the need for a closer relationship between these units in a co-ordinated effort to strengthen the country's capacity to meet changing labour market needs.

Over-age students at the middle level

The middle-level enrols the highest percentages of over-age students (over 55% in grade 9, and more than 50% in grades 10 through 12), presumably because students who previously dropped out return to school.[70] As emphasised in Chapter 2, over-age students, especially young adolescents, present a major pedagogical and social challenge for schools.

Formal policy documents such as *Los Objetivos del Milenio* emphasise that addressing the problem of over-age students should be a priority. Since 2002, the SEE has been pursuing several initiatives through the Programmes for Accelerated Education (*Programas de Aceleraćion Educativa)* to address the needs of over-age students. These include (1) the Accelerated Bachillerato (*Bachillerato Acelerado)* that makes it possible for students who are two or more years over-age in relation to the age that most students enter middle-level education to complete the Bachillerato in two years; (2) the *Habilitaćion de Verano,* a summer school for students who have completed grade 8 (basic education) with only modest academic performance to strengthen their academic skills in Spanish, mathematics,

[70] Alvarez, p. 17.

and social and natural sciences before entering middle-level education; and (3) the Leveling Programme (*Programa de Nivelaćion),* begun in 2006-2007, through which students who are two or more years over-age and have been promoted from the second grade of the first cycle to the first grade of the second cycle, can complete the second cycle in one year, provided they have good qualifications and make the required effort. An evaluation of the Accelerated Bachillerato found no significant difference in performance on the National Examinations when compared to students completing the regular four-year programme. Preliminary indications are that the *Habilitaćion de Verano* is also having positive results. As discussed below, the OECD team has reservations about offering adult education for youth and older students at the same venue as the regular middle-level. Rather than have older students continue unsuccessfully in the regular middle-level schools, the goal should be to ensure that these students have at least basic skills in mathematics and reading, (preferably at the level expected at the end of the first cycle of middle level) and job-specific training for the labour market.

Teachers at the middle-level

As discussed in Chapter 5, the quality of initial teacher education for middle-level teachers, especially at the UASD, should be a major concern. If 55% of the students entering the university are unprepared for tertiary-level study, and education tends to be the "default" selection of a professional programme where the largest (and likely least academically prepared) percentage of university students are enrolled, the implications for the quality of middle-level teachers are bleak. Action to attract highly qualified and motivated students to teacher education and to improve university-level preparation, as outlined in Chapter 5, must be a priority.

Informal training

The Dominican Republic has a well-developed capacity in INFOTEP for training to meet the needs of employers. INFOTEP is a unique organisation separate from the formal state education structure organised as a not-for-profit entity with its own revenue streams from public and private sources, including a percentage of the salaries and wages paid by employers. INFOTEP has a governing board comprised of representatives of the public sector (the State Secretaries of State for Education and for Labour and the General Director for Vocational Education), and business/employers, and organised labour. As explained in the Country Background Report, the main function of INFOTEP is "to train the human resources of the national

productive sector, provide advice and regulate professional training at the national level." INFOTEP operates 154 centres offering technical training distributed through the country.

INFOTEP is clearly a critical element of the Dominican Republic's capacity to develop the human resources necessary for the nation's economic competitiveness. The availability of high-quality rapid response, short-term training is an important means to retain and attract businesses and industries that require a skilled workforce. The INFOTEP centres visited by the OECD team were modern and well equipped.

INFOTEP, in collaboration with the general technical professional unit within the SEE, has the potential for providing the framework for a comprehensive technical/professional education and workforce development capacity for the Dominican Republic. Among other initiatives, the EU project is funding four pilot regional centres that promote co-ordination between INFOTEP and secondary technical professional programmes to improve responsiveness to changing labour market needs. At the national level, the EU project is providing professional support and technical assistance to the General Technical Professional unit within the SEE. INFOTEP also makes available facilities for training of teachers for technical professional programmes.

As discussed below in relationship to adult education, there appears to be no recognition in the formal education system of the role of INFOTEP in the provision of adult education. There is no mechanism for transfer of credentials between the non-formal and formal training systems. For example, a student cannot gain recognition of training in basic skills through INFOTEP toward eligibility to take the National Examinations at the basic level, or toward a middle-level certificate or "*bachillerato*". Students must have completed at least eight-year basic education to be eligible to participate in INFOTEP training. The team learned from INFOTEP officials that some employers are now seeking applicants with a minimum of a secondary (middle-level) education. From these conversations, the OECD team gained the impression that INFOTEP is extensively involved in providing basic skills training to ensure that students have the higher level of general education, especially in language and mathematics, necessary to benefit fully from the training and to perform effectively in developing businesses. The fact that students who have completed eight years basic education need further remedial/developmental education is a commentary on the quality of basic education. However, an even more serious issue is that there is no way for students to apply the certification of additional learning through INFOTEP toward further education in the formal system.

There is a striking difference in the quality of facilities and equipment at INFOTEP and those available in the state secondary "middle-level" schools. The OECD team visited a secondary school that is participating in one of the EU-supported regional training centres. In this case, students in the middle-level school can benefit from the facilities available from INFOTEP located a short distance from the school. The OECD recognises that INFOTEP's resources are focused on its mission of providing non-formal training and that it does not have the capacity to undertake the additional role of providing formal education. Nevertheless, the OECD team concluded that it would strengthen formal education if the increased collaboration between INFOTEP and SEE, as demonstrated by the EU-supported centres, were extended throughout the country.

INFOTEP has a well-developed competency-based framework of the knowledge and skills needed for various occupations and its own set of certifications that trainees earn on completing their training. In theory, this framework could serve as a foundation for a national qualifications framework applicable to the whole education system. Nevertheless, as indicated above in the discussion of technical/professional education, there is no mechanism to validate non-formal training for the purposes of the formal education system. The INFOTEP framework of competencies and certification appears to operate apart from the formal education system. As noted above, none of the certifications gained through INFOTEP have currency in the formal system. In other words, students cannot receive recognition of this learning in their efforts to complete middle level education (a "*bachillerato*") or advance to tertiary education. In other words, there is no formal framework for lifelong learning.

Adult education

The Dominican education system includes a subsystem of adult education, which serves students who did not receive a formal education or dropped out of that education system, as well as those who have completed basic and middle-level education and are seeking additional professional training. Adult education includes literacy, basic education, and four-year (two-cycle) middle-level education. Basic education for adults is five years in duration and divided into three cycles: the first two cycles are two years each and the final cycle is one year. At the end of the final cycle adults who pass the National Test receive a certificate indicating that they have completed basic education and are eligible for promotion to the middle level. Adults completing middle level education take the National Test required for granting of a "*bachillerato*" and eligibility to advance to tertiary education.

The OECD team had only a brief opportunity to learn about adult education programmes through a meeting with the SEE unit responsible for this area and meetings with teachers and parents in one school. The adult programmes are offered during the evening shift in school facilities that are also being used for regular basic education and, in some cases, for middle-level education. The adult programmes play a critical role in providing opportunities for young adults who dropped out of school but want to return to earn their basic education certificate or complete middle level education. As explained in the *Objectives of the Millennium,* adult education is also seen as an efficient solution to the problem of over-age students. These students can be placed in adult education rather than continue in the regular classrooms with younger students. It is also recognised that getting young mothers who did not complete basic education back into school has a direct effect on the school attendance of their children and the mothers' employability.[71]

In the meeting with teachers and parents in an adult education centre, the OECD team was impressed by the understanding of the unique needs of adult learners such as the importance of accommodating demands of employment and family responsibilities. The participants emphasised the differences in pedagogy between regular and adult programmes and the need for special training for teachers of adult learners.

As explained in the Country Background Report, adult education also provides opportunities for professional/vocational training. It was not clear to the OECD team how, if at all, this function was co-ordinated with the programmes available from INFOTEP (see discussion of INFOTEP above).

Many developed countries relegate adult education to a lower status within the education system, despite evidence of continuing problems of low education attainment of adults. Among the most critical problems are those of young adults who have not completed secondary (middle), or even basic education. Young parents lack the basic literacy to read to their children and support them in school. Under-educated youth often cannot find employment and have high rates of criminal behaviour and health problems. The Dominican Republic, in contrast, clearly recognised the priority of adult education in the *Plan Decenal* and the subsequent curriculum development process. The OECD team strongly endorses the continuing high priority of adult education as stated in *Los Objetivos del Milenio.*

Nevertheless, the emphasis on serving adults primarily at basic and middle level schools raises concerns for several reasons. First, increasing the number of adult learners at schools serving primarily young children raises

[71] *Los Objetivos Del Milenio*, pp. 37-38.

concerns about the appropriate learning environment and even security for both the adults and young children. It is not the best alternative to mix such diverse age groups at the same school site, especially in already crowded facilities. Second, the experience in other countries is that adults who have dropped out of school often are reluctant to return to the same school where they experienced failure. They are more likely to participate in adult education if it takes place in a new setting and is connected in a practical way with training leading to employment at a living wage. At the same time, the OECD team recognises that in some cases it is convenient for parents to participate in adult education in the same school where their children are also attending.

There are also different modalities of adult education. Young students who have dropped out of school and then return to school after several years have different needs than older adults who are functionally illiterate and need basic adult education to get or retain a job. The problem with adult education in many LAC countries is that programmes to serve these different needs are put together, and they fail to serve any needs especially well. It is important for the Dominican Republic to differentiate among adult populations and to have programmes, curricula and related assessments appropriate for each group.

The OECD urges the Dominican Republic to strengthen the links with INFOTEP and other venues for adult learning and that, as suggested in the discussion of INFOTEP, ways be established for students to earn credit toward formal education credentials through the certified knowledge and skills gained through INFOTEP. For example, students completing INFOTEP programmes should be eligible to take the National Examinations for completing basic or middle level education.

In summary, the OECD team has serious concerns that the middle-level (secondary) system as well as the adult education system are preparing students adequately either for the labour market or for further education (tertiary education and/or lifelong learning). The Dominican Republic is taking important steps to address these concerns through the Multi-phase Programme for the Modernisation of the Middle-Level Education (*Programa Multifase para la Modernización de la Educación Media*). Because much of the attention of reform is justifiably on the initial and basic levels, the Dominican Republic has given less attention to strategies at the middle level or, more broadly, to the system intended to prepare youth and adults for the labour market and further education. There is a need, therefore, for the Dominican Republic to give high priority to the Programme for the Modernisation of Middle-level Education (*Programa Multifase para la Modernización de la Educación Media*). Such an effort

should extensively involve representatives both of employers as well as tertiary education.

Recommendations

1. Within the framework of the Programme for the Modernisation of the Middle-Level Education (Programa Multifase para la Modernización de la Educación Media), undertake a fundamental redesign of the middle-level, including the curricula and assessments, with the goal of increasing student learning in core competencies required for both further learning and entering the labour market. Such a review should extensively involve representatives both of employers as well as tertiary education.
2. Shift over time all middle-level schools to sites physically separate from basic schools in order to provide more age- and developmentally-appropriate environments for students at all levels.
3. Stress that all students, whether graduating from the general or technical/professional modality, should meet the same high expectations for student learning in a limited set of core competencies, especially in the critical areas of mathematics, reading comprehension and written and oral communication in Spanish.
4. Develop an assessment at the end of the first cycle of the middle-level to be used for diagnosis and improvement and to provide students with information on areas for improvement necessary for success in the second cycle and beyond (see Chapter 6).
5. Align the standards, curricula and assessments for students intending to enter tertiary education (primarily students in the general modality of the second cycle) with the expectations for tertiary-level study.
6. Provide middle-level students intending to pursue tertiary education an opportunity to obtain a preliminary diagnosis of the strengths and weaknesses of their preparation early enough to allow time for remediation at the middle-level. For example, the IAUD assessment (POMA) could be administered earlier to middle-level students who intend to seek university entrance (*e.g.* they might take the test at the beginning of the second year of the second cycle). This would provide an opportunity for students to narrow gaps in preparation during their final two years at the middle-level. Information from the POMA could

also be used for diagnostic purposes for revising and strengthening the middle-level standards, curricula and assessments.[72]

7. Continue to pursue alternatives such as the Programmes for Accelerated Education (Los Programas de Aceleración Educativa) to the regular middle-level schools for over-age students (more than one year beyond expected age) who are not making academic progress to obtain at least basic skills in mathematics and reading, preferably at the level of expected at the end of the first cycle of middle level) and job-specific training for the labour market.

8. Give high priority to improving the quality of teachers at the middle-level, including attracting highly qualified and motivated students to teacher education and improving university-level preparation as outlined in Chapter 5.

9. Develop a national qualifications framework for the whole education system, drawing on a closer relationship between INFOTEP and SEE and SEESCyT, and engaging employers from all sectors of the nation's economy.

10. Draw on the experience of the EU-supported PRO-ETP pilot regional centres to expand collaboration between middle-level technical professional programmes and INFOTEP in responding to the changing needs of employers and regional labour market needs.

11. Strengthen the role of INFOTEP in providing adult education that can be certified and recognised within the formal education system.

12. Use INFOTEP to provide job-specific training and certification to students at the middle-level who are over-age or at risk of dropping out, as an alternative to these students continuing in the formal system.

13. Expand opportunities for adult education to take place in locations other than basic and middle-level schools. Alternatives could include recognition of INFOTEP as a provider (see above), non-governmental organisations, or spaces provided by employers at or adjacent to worksites.

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[72] The OECD team is *not* recommending that the Dominican Republic develop a "two-track" general modality in the second cycle of the middle-level: one for those intending to enter tertiary education immediately and one with lower expectations. On the contrary, the goal should be that all students completing this cycle should meet the same expectations in terms of core academic knowledge and skills. The team cautions that placing too much emphasis on preparation for college-level learning could detract from the broader goals of the middle-level curriculum.

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Chapter 5. Teacher Education and the Teaching Career

Chapter 5 looks at teachers in the education system, analysing both teacher training and teachers in the workplace. It stresses the importance of teacher quality when it comes to implementing the necessary reform of education. Various aspects of the teaching profession in the Dominican Republic are discussed, including the image of the profession, initial teacher training, in-service education and teacher employment issues. The chapter also contains a section on the administration of the teaching system and outlines problems such as the lack of co-ordination and co-operation between responsible administrative bodies. The need for research on the implementation of education reform and the lack of financing for this research is also raised and recommendations relevant to teaching are given.

The quality of the Dominican Republic's teaching force is of central importance to the reform movement, and enlightened and sustained policy on the teaching career is a pre-requisite for success. As concluded by the recent OECD study, *Teachers Matter*, "The broad consensus is that 'teacher quality' is the single most important school variable influencing student achievement".[73] The pattern of low levels of expenditure on education has implications for all aspects of the education system, but the teaching force has suffered from under-funding over many decades, which has left an enduring mark. It has been calculated that the real salary of teachers fell by 57% between 1966 and 1978, and that by 1991, the actual salary level amounted only to 20% of that received in 1966.[74] Action was taken during the 1990s which improved this situation, and the Teacher Statutes of 2000 and 2003 aimed at reforms in teacher conditions. Yet, the recent difficulties in the public finances have "provoked a reduction of both teacher's real

[73] OECD, 2005, *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, p26.

[74] Alvarez, 2004, p. 1.

salary and the materials and equipment used by the teacher" and "investment per student decreased by 4.5% during the period 2002-03".

As noted earlier in this report, the Dominican Republic has taken a number of major initiatives reflecting its interest in modernising and reforming the education system. A declared aim of the *Plan Decenal* and other reforms was to encourage students to engage critically, creatively and productively with the curricular content and to develop the values and skills to cope with the challenges of the contemporary world. Teachers were expected to be the key mediators to help students do this by new teaching methods and reflective practice.

To achieve such admirable educational policy aspirations in any society requires a high-quality teaching force, working in favourable conditions. Both the history of education in developing countries, and contemporary research on the implementation of major educational change, warn about the gaps that will exist between aspiration and reality when such conditions are not present. Among the essential conditions necessary to achieve significant reform of education systems are well-resourced and focussed investments in the system and a comprehensive policy on the teaching career, sustained over a long period. The Dominican Republic faces a dilemma as it seeks to position its society within the global economy, assisted by a quality education system, when it has, in the past, neglected both investment and its teaching force. Improving the quality of the education system has to be the guiding principle for the future. Quality cannot be achieved without a teaching force that is intelligent, caring, imaginative, well trained, with good morale, and working in conditions that allow teachers opportunities to exercise their professional skills.

The image of the teaching profession

The image of teaching as a career in the Dominican Republic has been affected by the historical residue of how it has been treated by public officials. Teaching does not enjoy the aura of the humane, skilful and satisfactory career which, in some countries, attracts intelligent, talented, and caring young adults. The reviewers noted that, when they asked several teachers whether they would encourage their children to opt for teaching as a career, each of them answered in the negative, not because of the nature of the work, but because of the poor salaries, unsatisfactory working conditions and inadequate pedagogic resources. The reviewers were told by other interlocutors that candidates were attracted to teaching not by the salaries available but by the relative stability and continuity of employment which teaching provided.

The policy of open entry to teacher education courses at universities facilitates a tradition of "drifting into" courses by people who have no real motivation for the career. The reviewers learned that the academic standards of such entrants are often low, and require a good deal of remedial attention before they can usefully engage in professional studies (see discussion of assessment results at the tertiary level in Chapter 3). It seems that a proportion of student teachers go into teaching because of the absence of anything better, rather than opting for it as a genuine career choice. High achievers at school tend to avoid entry to teaching, even when teacher education departments offer them inducements such as scholarships. They are attracted to careers with more status and better conditions. Entry to the state supported, six-campus *Instituto Superior de Formación Docente Salomé Ureña*, a teacher education institution for initial and basic schools, is by competitive entry, and is of a more satisfactory standard. Credit is also due to those licensed teachers throughout the country who seek to improve their qualifications by attendance at weekend and summer courses. However, the circumstances of their attendance are often arduous, and their study patterns do not facilitate qualitative engagement.

The public image of teaching depends on a number of factors. One is the public projection of the significance and value of the teacher's work. It is important that the role of teachers in the promotion of national well-being be affirmed at every appropriate opportunity. This is a necessary, but not a sufficient step, in establishing the teaching career in the public mind as one that is highly valued and regarded. The imaginative use of media and advertising can also help to consolidate an attractive profile of the career. Unless people of high quality are attracted into teaching it will be difficult even for good teacher education courses to achieve a great deal, and it is quite unrealistic to expect the type of professional performance in the classroom that official policy desires.

Efforts need to be made to improve the academic standards of many of those who currently enter teacher education courses. Attention could profitably be given to designating certain basic requirements in literacy, mathematics, and scientific studies for aspirants to teaching. As is the case with the six campuses of the Salomé Ureña teaching training institution, interviews and/or aptitude tests would be likely to raise entry standards, and also signal the importance of the entry process to a career that requires important human qualities as well as professional skills.

Initial teacher education

From 2005, all teachers require university degree-level qualifications to enter the profession. For some time, progress has been made in enabling

holders of the former two-year qualification to upgrade to this new level by attendance for two or more years at weekend and summer courses offered by teacher education institutions throughout the country. All future teachers will undergo the four-year, concurrent degree course. Under current practice, many student teachers in universities take more than four years to complete the course.

There are two main tracks for initial teacher education. One is for entry to initial and basic school levels, and is conducted in six state-supported teacher education institutions known as teacher training institutions. Universities also offer the degree of basic and initial education. Entry for middle grade (secondary) teaching is through the universities, some of which also offer courses for teachers in initial and basic schools. The quality of each of these tracks was evaluated differently by the reviewers.

Formal teacher training for basic school began as long ago as 1880 with the founding of a Normal School for men, and a similar institution for women in 1882. However, the supply of trained teachers always fell short of the expanding needs of the school system. In the 1970s a variety of reforms was introduced, including the inter-university agreement of March 1973, which arranged for teacher education for middle-school teachers to be done by universities. The Ten Year Education Plan of 1992 (*Plan Decenal)* includes among its objectives "To improve significantly the social, economic and professional situation of teachers". In this context, the State converted the six Normal Schools of that time into higher education institutions in 1997. An arrangement was arrived at between religious personnel, who administered the institutions, and the State whereby the State pays for accommodation and fees of the student teachers, as well as providing equipment and facilities for the institutions. The courses are organised within the framework of a Bachelor's degree, which has now become a requirement of all incoming teachers. The State has had a much closer involvement with these institutions than with the more autonomous universities.

The reviewers visited a number of these institutions and were impressed by their structure, layout, equipment and atmosphere. There is competition for entry to the institutions, and entry tests as well as interviews and orientation periods are part of the selection process. The authorities in the institutions are free to select their own staff who tend to be well qualified, some of whom benefit from support schemes to obtain Master and Doctorate degrees. The staff is relatively well paid and tend to develop strong loyalty to the work of the institutions. While student/staff ratios tend to be high at about 35:1, this is not regarded as a significant problem, although it does inhibit attention to individual students' needs.

These institutions prepare students for both initial and for basic school level. The demand for training for initial schools, dealing with pre-school children, is expanding as these schools are developing within the public as well as the private sector. The institutions are well endowed with equipment that facilitates acquaintance with ICT technology. It also allows for the video analysis of teaching practice. The curriculum, which was revised in 2003, reflects a good balance between theoretical inputs and practical experience. The institutions have established good links with a variety of schools for teaching practice. The practice is carefully devised, becoming gradually extended over a sequence of practice periods as experience grows, from observation by students to students eventually taking responsibility for a class for the full school day. Institution supervisors liaise with classroom personnel regarding students' progress. Despite this structured experience of teaching practice, it was reported that many students experience a culture shock when they encounter the normal circumstances and conditions prevailing in schools. Frustration sometimes sets in when beginning teachers find that such circumstances impede their use of recommended teaching methods. Institution personnel reported that they are happy to provide such graduate students with advice and guidance. The success rates of student teachers in their final assessments are high, at over 90%. This is probably helped by the entry standards, the unified focus of the course, the careful structuring of practical experience and the general ethos of the institutions. However, many graduates may have to wait for up to two years before they obtain permanent employment as teachers.

The universities have particular responsibility for teacher education of secondary school (*nivel medio*) teachers, but they may also offer training courses for initial and basic school levels. The great majority of university-based student teachers attend the Autonomous University of Santo Domingo (UASD) which offers courses for schools at all three levels. Access to university-based courses is by open entry and many entrants require extensive remedial education because of their poor entry standard. As summarised in Chapter 3, a recent assessment of students entering UASD revealed a high percentage of students who needed basic remedial work before they could cope with university-level study. Many of the students come from poor families and often have to cope with family responsibilities. Motivation levels also tend to be problematic. A combination of such factors leads to high repetition rates, with students often taking up to seven years to complete the course, if indeed they persist and are successful. Such problems are exacerbated by high student staff ratios, often at 50:1, which makes small group and individual work with students well nigh impossible.

Student teachers take most of their academic subject content, *e.g.* mathematics, in conjunction with other students in the academic subject

departments of universities. However, there is a mismatch between this content and the curricular emphases of the schools. The academic university staff have been reluctant and slow to respond to new school curricula, which were changed in the mid 1990s. Education enrols the highest percentage of students of any course of study at the tertiary education level (14.03%). Nevertheless, teacher education is not highly valued within the universities and these negative attitudes permeate the ethos of teacher education. Further, the reviewers learned from a variety of sources that the subject specialists do not require the same standard from teacher education students as from those studying the subjects for other career tracks. It is as if a lower standard is sufficient for school teaching. These trends can result in young teachers having poor levels of subject content mastery, which is in any case not aligned with the subject curricula in schools.

This creates a vicious circle, with poor standards of teaching in the schools leading to inadequate standards among school graduates, who then proceed to university where they need much remedial help to cope with university studies. Yet there seems to be little will to break the cycle. The manner in which universities exercise their autonomy hinders the alignment of university teacher education programmes with the institute of teacher training in the SEE, or with the agency INAFOCAM, established in 2001 with special responsibilities for teacher education. These agencies would like to see reforms in teacher education, but do not have the powers to bring them about.

A further problem regarding the initial teacher education courses in universities is their overly theoretical approach, to the detriment of practical teaching. While the theoretical course content includes the study of education authors such as Bruner, Vygotsky, Piaget and others, too little attention is paid to applied pedagogy.[75] Teaching practice is of short duration and, unfortunately, delayed to the last two semesters of the whole course. While links exist between university staff and practising schools, training in the practice of a range of modern pedagogic techniques would appear to be quite inadequate if the State's policy aspirations for qualitative teaching and learning are to be realised. Supervision of practice by university personnel is limited.

There is an awareness that student teachers should be competent in the use of ICT; yet the integration of ICT into classroom teaching is limited.

[75] Examples include Bruner, J. S. (1960), *The Process of Education*. Cambridge, Mass. Harvard University Press; Piaget, J. (1932). *The Moral Judgement of the Child*. NY: Harcourt, Brace Jovanovich. Vygotsky, L.S. (1962) *Thought and Language*. Cambridge, Mass.: M.I.T. Press.

University staff training is in process, and, in the case of UASD, four large virtual classrooms have been provided as well as a modern well-equipped library, from which future student teachers should benefit.

University staff in education departments tend to enjoy stable, tenured status which does not favour "new blood" appointments. While salaries are not high, staff enjoy a 50% reduction in teaching load after 20 years of service and can retire on full salary after 30 years. This can sometimes mean a loss of talent and experience of staff, who frequently take up employment elsewhere. Since 1999, Master courses have been established in Teaching and Learning as a staff development initiative for established staff in universities. These have now become popular and, in the case of UASD, have helped raise respect for university education department staff who contribute to these courses.

The reviewers found an awareness that university-based teacher education is in need of reform, particularly among the staff in UASD and the Pontifical Catholic University (PUCMM).The staff is also conscious of concerns within the SEE, and there seems to be openness towards consultation. It may well be that the time is ripe to progress further. A closer liaison with the SEE could strengthen the hands of university Education Department staff, as they battle from a rather marginalised position within the university to secure reforms on entry procedures, student numbers, course re-structuring and the deepening of pedagogical expertise. The issue of teacher education reform is of such significance and urgency for raising the quality of the education system within the Dominican Republic that any further delay in progressing reform will be deeply harmful to national policy.

Induction and in-service teacher education

There is no structured system in the Dominican Republic for the induction of beginning teachers into their careers. International research emphasises the importance of an induction process for new teachers as they cope with the demands of the profession.[76] The evidence of the culture shock experienced by newly qualified teachers in their first appointments points up the need for supportive action by the authorities. It should be promoted as part of the school's culture that the school director (or designated staff) ensures that new teachers are supportively inducted into the school, and into their professional roles. While it may not be possible at this time to implement formalised teacher induction programmes, it ought to

[76] OECD, 2005, *Teachers Matter,* p. 117.

form part of the duties of District supervisors to give particular support and guidance to new teachers in their school districts.

Forms of in-service education for teachers (INSET) date back to the 1970s and were further emphasised in the Ten Year Education Plan (*Plan Decenal*). The higher education institutions, the universities, the regional education offices and international agencies are involved in the provision of INSET courses. One form of INSET conducted by the institutions and some universities is where serving teachers, with the former two-year qualification, attend weekend and summer courses to upgrade their initial teacher qualification.

There is a wide range of INSET courses on offer for in-career teachers, with emphasis on updating knowledge and/or skills in relation to curriculum change. Providing agencies respond to requests from the Ministry to offer short courses in mathematics, language and science teaching. Teachers' working conditions and long days on shift teaching mean that many of these courses have to be conducted during the summer period. Traditionally, the SEE paid for meals, transport and equipment associated with the courses. Due to recent financial difficulties the support for transport has been reduced, and salary incentives that used to be given for participation in INSET have been suspended. Some innovative INSET is being sponsored by agencies such as the World Bank, the Inter-American Development Bank and the European Commission. They promote best practice in focussing on pedagogy with a "hands-on" approach in subjects such as mathematics, Spanish, and the teaching of reading. One of the techniques involves "study circles" of teachers meeting during school time to discuss and focus on improving practice. Both lecturers and teachers who took part in these INSET sessions reported favourably on them. A criticism made, however, was that pilot initiatives on curriculum and pedagogy tend not to be converted into mainstream policy.

As well as these short INSET courses, most tertiary education institutions offer post-graduate Diploma and Masters courses in areas such as school administration and special needs education. The range of such courses, and the number of institutions offering them, have expanded greatly, and are sometimes disparagingly referred to as "diploma mills". The reviewers were concerned about the staff adequacy in many private universities for offering such Diplomas and Master's degrees. There was a heavy dependence on part-time staff whose qualifications and experience to offer credible, high quality courses come into question. There is a lack of accountability and quality assurance, which can have negative consequences for the system. There is inadequate tracking of student attendance, and a lack of rigorous academic controls. Such a situation can bring this form of certificated INSET into disrepute. More importantly, it may not lead to any

qualitative improvement for the schools. It was also reported to the reviewers that some of the most successful teachers on good quality INSET courses were attracted out of teaching towards more lucrative careers, leading to shortages of teachers in subjects such as mathematics and physics.

In general, it is not clear that the current investment in INSET activities is yielding its optimum benefit to the system. While there is a good deal of INSET activity, it tends to be disparate and uncoordinated. There is not much evidence of serious evaluation of its quality, and such evaluation as does exist fails to feed into improved planning and delivery. While it is not always possible to assess the value of INSET on teaching and learning outcomes, nevertheless some effort should be made to evaluate its effectiveness. The teaching profession itself should have a major input into INSET content and practice of their continuing professional development (CPD). Furthermore, the cultivation of skilled teachers' expertise to deliver in-service courses to their peers in school-based conditions would be a beneficial emphasis for policy. INSET providers need to win credibility with course participants, which usually requires close experience on their part with classroom realities. It is clear that if improved quality in teaching and learning is to be promoted in the Republic's schools, it requires a focussed approach to building up a repertoire of pedagogic approaches with which teachers can be comfortable and which are reasonably feasible in present classroom conditions. The SEE, through the institute of teacher training and INAFOCAM and in consultation with relevant stakeholders, should devise a Strategic Plan for INSET: promoting best practice, greater co-ordination, better quality assurance, and a closer fit with national curriculum policy for all levels of schooling. A system of guidance could be implemented as an in-service education for teachers.

Teacher employment issues

There are now more than 79 000 teachers employed in the Dominican Republic. In the past, there were many deficiencies relating to teacher employment, but in recent years a number of reforms have been initiated which, if sustained and developed, bode well for the future. The General Law on Education 66-97 and the Teacher Statutes of 2000 and 2003 provide a valuable framework for remedial action.

One of the most important instruments for a well-informed policy on the teaching force is to have a satisfactory data base which would contain accurate statistics on teacher numbers, inflow and outflow patterns, age of teachers, teacher qualifications, subject competencies, teacher student ratios, geographical distribution, and associated information. Since 2001, the Human Resources National Census (CNRH) has been building up such a

data base. Associated modernisation of human resource management procedures has also been undertaken, incorporating new technologies. Single Staff Registers, organised by electoral identification number, were established which allows the maximum use of existing information, including the follow-up of every employee's work record. The new policy of teacher "Salary Consolidation" was implemented, whereby a multiplicity of arrangements were simplified and unified, including the consolidation of many existing incentives. Teacher salary payment through cash points (with the use of magnetic cards) has been initiated, and seems to have brought a number of advantages, including the saving of teacher time spent going to banks to cash cheques during school hours. Since 2003, most of the Regional Offices have come on-line, in order to transmit staff information directly. Reviewers were impressed by the operation of the system in a Regional Office they visited. It was also notable that these administrative reforms were introduced after consultation with stakeholders.

In the past (and to some extent even today), the appointment of teachers and of school directors could be influenced by political and other non-professional considerations. The Teachers' Statute 639/03 has put in place new, more accountable and transparent procedures. Staff vacancies are now defined at the beginning of the school year on the basis of objective indicators defined by the Statute. Staff selection is by competition under the responsibility of a collegiate body, with representation of the education stakeholders, which can also include parents. The general pattern involves the submission of applicants' Curriculum Vitae, from which short-lists are compiled. Those short-listed are subjected to a two-part test, one relating to subject competence and one focussed on psychological issues and communication skills. An interview based on professional matters forms the third part of the procedure. After each competition, a register of eligible professionals is drawn up from which other vacancies can be filled when they arise. To be eligible to compete for a school director's position, a minimum of five years' satisfactory teaching experience is required. Another significant new development relates to teacher promotion in a school. Promotion is now intended to be merit-based and the vacant post is filled by competition, without special consideration of the applicant's seniority. Positions as Regional Directors of education continue to be filled by ministerial appointment. The reforms on teacher appointment are to be welcomed and should lead to qualitative improvements in the system. The directors of private schools and polytechnics have the authority to select their own staff on the basis of the requirements they identify.

A remarkable feature of teacher employment in Dominican Republic is that more than 50% of teachers have been in the system less than five

years.[77] This disproportionate figure is difficult to explain fully, and should be looked into. It is partly due to expanding enrolments, but partly also to other factors, such as experienced teachers leaving to take up more lucrative positions. While benefits can be gained from a large number of young, energetic, motivated teachers without old habits harking back to previous curricula, the lack of a better balance between youth and experience could cause problems.

The salaries of teachers are low. A basic school teacher earns on average about 5 200 DOP (160 USD) per month, working one shift per day. Teachers are allowed to work two shifts, and about half the teachers do so, while others seek to supplement their income by other forms of employment. As discussed earlier, the conditions for teaching in the public schools, including the pressures of the shift system and inadequate support and resources, are poor. When a teacher has to travel from one school to another for the second shift, it may encroach on the time for the second shift, as well as contributing to an arduous and long day for the teacher. Such arrangements do not fit well with time for planning, correction of student work, feedback to students, teacher reflection or fostering collegiality and teamwork.

It is difficult to achieve a satisfactory standard of living on a teacher's salary. Teachers in middle school earn about 7 000 DOP (216 USD) per month, based on a 30-hour week. Most of the salary "incentives" (bonuses) that used to exist have been consolidated within the new salary scales, but some still apply. Teachers may be subject to re-location between schools, as the needs of the district or region require. Teachers may retire at 60 years if they have 25 years of service or at age 55 if they have 30 years of service. Retirement, however, is not compulsory, and some teachers stay on due to financial circumstances.

The General Education Law of 1997 (*Ley* 66 97) and the Teachers' Statute of 2003 allow for a focussed evaluation of teachers' performance, with incentives for high level performance, and remediation procedures where significant or systemic deficiencies in teacher performance are detected. However, the structures for a satisfactory teacher evaluation system have not been put in place, and there seems to be a lack of political will to implement the process. The reviewers were interested to learn that this was not due to teacher union opposition. The union had agreed to the policy, and was keen that the incentives aspect should accompany the evaluation process. At present, supervisors associated with district or regional education offices carry out some inspection functions. These are

[77] Alvarez 2004, 18.

largely related to checking on documentary and regulatory issues, including checking of teachers' class plans and yearly programmes of work. No effective evaluation of teacher classroom performance takes place, and no guidance on best practice is available to teachers from the supervisory system.

Administration and research

Lifelong learning for teachers, as well as most features of teachers' work and conditions of employment, come under the authority of the Secretary of State for Education (SEE), although teacher education forms part of the university sector which comes under the aegis of the Secretary of Higher Education, Science and Technology (SEESCyT). In terms of unity of purpose for the schooling system, this is considered a good arrangement. However, it requires close co-operation between the two Ministries to ensure that teacher education within the university sector is not marginalised, and is given the attention it needs. There are two agencies with specific responsibilities for teacher education issues – the institute for teacher training in the SEE, and an agency set up in 2001 – INAFOCAM – which operates in association with, but independent of, the SEE. An ordinance in 2004 aimed to give it significant powers, but this is not being implemented. INAFOCAM was established to give a more specialist focus for teacher education and to act as an advisory and planning agency for the Secretary for Education.

The reviewers formed the view that there is a lack of clarity, co-ordination and co-operation between the Institute and INAFOCAM, which was set up by the Law on Education 66-97. In view of the crucial importance of teacher education policy and practice for the Republic at this time, there is a need to establish better co-operation or amalgamation between the agencies so that a coherent, consistent and united policy on teacher education could emerge. It is also the case, as in other countries, that the autonomy of universities should not preclude a more intimate engagement by the Ministry for Education with the teacher education role of the universities. It is timely that close attention be paid to establishing constructive dialogue between the Ministry and the relevant university authorities to ensure that a reform programme for teacher education – in line with contemporary society's needs – is put into effect. From discussions held with personnel in the Institute and INAFOCAM and with teacher education personnel in the universities, there seems to be a consensus that these issues need to be addressed.

Policy on the teaching career also needs to benefit from insights and perspectives from more research on teacher issues and on teacher education.

While research studies exist, some by international agencies, particularly on macro issues and trends, there is a dearth of locally produced research on areas such as teacher education, teaching methods, teacher and student-teacher attitudes, school drop-out patterns, teacher retention trends, school administration issues, teacher evaluation, effectiveness of in-service teacher education, schools' receptivity to curricular changes, and effective strategies in disadvantaged schools.

In particular, there is a need for research on the implementation of education reform, drawing on international experience but focussed on the conditions prevailing in the Dominican Republic. Very little money is available for education research; indeed, research does not seem to be considered an integral part of the education budget. There is also a need for research findings, and the outcomes of national testing, to feed into the educational policy process. Research findings that *are* available should be put to use, and disseminated to the relevant stakeholders. It would be helpful if SEE had a designated agency to take responsibility for promoting and utilising educational research, and to assist in promoting indigenous expertise in conducting it.

Recommendations

1. Give high policy priority within the SEE (with the support of the government) to improving the quality of teacher education and the capability of the teaching force.
2. Pro-actively promote the image of the teaching career and the role of the teacher.
3. Designate basic standards, particularly in literacy and mathematics, for entry into university teacher education courses.
4. Establish greater co-ordination of policy on teacher education within the SEE, followed by dialogue and planning with the universities on a comprehensive reform of teacher education.
5. Make specific efforts through directors of schools and district supervisors to support beginning teachers in their induction to the teaching profession.
6. Initiate a strategic plan for the in-service education of teachers under the leadership of the SEE, in consultation with relevant stakeholders. The plan should incorporate quality assurance mechanisms.

7. Sustain and further develop the new administrative procedures put in place by the SEE. This should include the establishment of a comprehensive data base on the teaching force.
8. Maintain and fully implement new appointment and promotion procedures.
9. Pay attention to ensuring that the official school calendar is implemented and that the students' learning time is not eroded.
10. Improve the working conditions of teachers with particular reference to size of classes, provision of teaching resources and sufficient supply of textbooks, issued on time.
11. Where teachers engage in two shifts within the teaching day, locate these, as far as is possible, in the same school centre.
12. Proceed with implementation of the law on teacher evaluation. Link performance incentives to evaluation.
13. Increase teacher salaries over time, not only as a reward for teacher effort, but also as a mechanism for building a favourable profile for the career.
14. Provide scholarships and incentives to students and teachers to study areas needed. Selection should be transparent and accountability mechanisms should be in place.
15. Provide better financing for appropriate research on aspects of the teaching career and schooling issues, focussed on the actual conditions of the Dominican Republic. Outcomes of such research should feed into policy. The SEE should designate a specific agency or unit to have responsibility for the promotion and utilisation of educational research.
16. Policy for significant educational reform should not be subject to periodic upheaval and radical change, but needs to be sustained and consistent for a significant length of time.

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Chapter 6. Leadership, Governance and Monitoring of Performance

Leadership, governance and the monitoring of student performance form the basis for Chapter 6. As with other aspects of the education system, the Plan Decenal*, the Law on Education, and the document* Los Objetivos del Milenio *declare strong policy objectives on the issue of governance, particularly with regard to decentralisation. In reviewing current practice, the review team discovered that although progress has been made on these objectives, there is room for improvement in the step-by-step implementation. The OECD team discuss the importance of exploring alternative models of school governance that would allow schools serving the highest priority areas and students to adopt forms of governance that allow them greater flexibility to increase student learning. The necessary improvement in the assessment and monitoring of performance is outlines and recommendations are given on the issues raised in the chapter.*

Bold intentions

The *Plan Decenal*, the Law on Education, and the document *Los Objetivos del Milenio*, all set forth bold intentions to transform the leadership and management of the nation's education system from the highly centralised and politicised past to a system characterised by best practice in the world in terms of effective schools. For example, over the past decade, the Dominican Republic has consistently stressed decentralisation: strengthening leadership at the education centre/school level, engaging parents and communities in schools, and increasing a sense of shared responsibility among teachers, parents and school leaders for improving student performance. In visits to schools, the OECD team met with parents who were clearly involved in their children's schools and school principals demonstrated a good understanding of the best practices in school leadership, even though the conditions for implementing these ideas were often not present. Initiatives of the SEE and special projects (*e.g.* the

World Bank project on basic education and the IDB project on elementary education) have had positive effects in developing an understanding of needed changes.

Lessons from other countries

Analysis of the characteristics of national systems that performed well on the Programme for International Student Assessment (PISA) show a clear relationship between certain policy variables and student learning. For example, a main aim of restructuring and systemic reform since the early 1980s has been to increase school autonomy over a wide range of institutional operations, with the objective of devolving responsibility to the front line and encouraging responsiveness to local needs. Parental involvement is a central element of most of these reforms. In most of the countries that performed well on PISA, local authorities and schools have substantial autonomy with regard to adapting and implementing educational content and/or allocating and managing resources.[78] The major caveat is this: decentralisation in these countries takes place within the framework of clear nationwide standards, nationwide systems for monitoring performance, and means to hold schools accountable. Devolution without such monitoring and accountability can lead to increased disparities among schools, fragmentation, and limited progress on student learning. The countries that performed well accompanied decentralisation with strong initiatives of professional development for teachers and professionals at every level of the system. Above all, the countries changed the roles of districts, regional authorities and the ministry, from control and inspection to leadership, support, and monitoring of performance in accordance with national standards.[79] As summarised in an Australian policy brief prepared for education leaders in that country, "Combining ambitious standards with strong support systems, and balancing devolution in decision-making with effective instruments for governments to intervene where things go wrong are among the policy strategies pursued in many of the education systems that did well on PISA".[80]

78 OECD 2004. *Learning for Tomorrow's World: First Results of PISA 2003.* Paris: OECD.

79 OECD 2005. "Raising the Quality of Education Performance at School. *Policy Brief* (Febuary 2004). Paris: OECD.

80 Australia Professional Voice 2005, p. 6.

Current practice in the Dominican Republic

As in the case of the new curriculum, the leaders in the Dominican Republic are well informed about *what* should be done. The problem is moving from bold ideas to sustained, step-by-step implementation. The Dominican Republic has made some progress toward these goals, but much remains to be accomplished.

With this international experience as a reference, the OECD team identified a number of shortcomings related to management, governance and monitoring in the course of visits to schools, interviews with district and regional officials, and with the SEE.

Among the problems that the OECD team observed were:

- No clear concept of school-level or education centre leadership, planning and improvement. This problem is complicated by splintered leadership at the school-building level in multi-shift schools, resulting from separate directors being responsible for each shift.
- No evidence of school development plans shaped with extensive involvement of teachers, parents and communities, setting operational objectives and the relevant instruments for assessing their actual implementation over time.
- Regional and district staffs who, while knowledgeable about needed changes, are seriously handicapped by limited resources. In practice, the shift has not taken place from the traditional role of inspection to a role of support, professional development, and monitoring.
- Lack of relevant indicators for monitoring and steering the schools, and the lack of basic computers and software at the school-level to use available data (*e.g.* through internet access to the SEE website).
- Inadequate initial training of school principals and the need for far greater attention to in-service training and professional development.

Again, as with many other issues, the Dominican authorities are well aware of these issues, and one can find more than one policy document expressing the intent to solve the problems. In August 2006, the State Secretary of Education announced a major initiative to realign key elements of the education system to support development of a new model of quality schools. A new publication, *Modelo de Gestión de la Calidad para los Centros Educativos,* which serves as the guide for this initiative, includes an excellent synopsis of the findings from research and practice about the

conditions necessary at the school level to improve teaching and learning. The initiative focuses on "quality schools" as the unit of change. The guide outlines ten criteria and related indicators that define a quality school under two categories: institutional management and pedagogical management. In summary, these are:

- Institutional management
  - An education centre committed to an Education Project (*Proyecto Educativo de Centro* – PEC) that guides institutional and pedagogical management and directs actions toward the goal of improving education quality. Among the indicators are that the education project (PEC) is developed with the full participation of the community (teachers, parents, and other stakeholders), and that the centre has an annual plan of strategies and actions to achieve its mission and goals.
  - The directing team of the education centre exerts leadership for change, including, among other indicators, co-ordinating, defining and guiding the execution of the education project (PEC) with community participation, and promoting self-evaluation and continuous quality improvement.
  - A scholarly environment exists that facilitates learning, including, among other indicators, an atmosphere of respect, safety and appreciation for the teachers and directors of the centre.
  - The education centre makes good use of school time and available resources, including, among other indicators, a school day that begins and ends at the established hours, and teachers who make good use of time and resources in the classroom to optimise learning.
  - The organisations for active participation and representation function in an active and permanent manner, including, among other indicators, the association of parents functioning in an active and self-renewing manner, and the education centre is incorporated actively into a school network.
  - The education centre is integrated in the development of its community.
- Pedagogical management
  - The education centre functions as a community of learning that is responsible for the achievement of all students.

- The purposes and content of curriculum are known, promoted, and put into practice by the members of the education community.
- The teachers provide personal attention to each student in the classroom in the process of learning, transmitting high expectations for student performance.
- The teachers have space available for pedagogical reflection, interchange of experiences and learning, and they develop plans for personal and continuous improvement.

Plans for implementation of the new model (*Modelo de Gestiónde la Calidad para los Centros Educativos)* emphasise the need for strengthening the capacity to support quality schools at the district, regional and national levels to support school-level improvement, including the National System for Evaluation of Education Quality, the Management Information System, and subsystems of strategy planning, pedagogical support and control, and professional development and training.

Other models for school governance

As emphasised in Chapter 3, the OECD team strongly believes that the Dominican Republic must focus on strengthening the nation's *public* schools. Within that framework, however, the Dominican Republic should explore models of school governance that would allow schools serving the highest priority areas and students (*e.g.* basic schools serving high poverty, urban fringe areas) to adopt forms of governance that allow them greater flexibility to increase student learning. Whatever models are adopted, they should include:

- Open access without regard to family income.
- Free access especially for the years of compulsory education.
- Public accountability for performance according to the SEE's monitoring requirements.

As one example, the OECD team was impressed by the apparent success of the publicly subsidised polytechnic schools that were visited, especially in relationship to the list of characteristics of effective schools listed above. The case of the polytechnic "Simon Bolivar" in a disadvantaged suburb of Santo Domingo is particularly significant. It is well managed and maintained. The teachers and the students are selected according to their character and motivation as well as their competence. Moreover, the school

has managed to create interesting links with parents and the surrounding community. Thus, it has a positive impact on this community by contributing to developing the social capital (in the Robert Putnam sense) inside and outside the school. This school receives 1 650 students: 730 in the basic school and 920 in the polytechnic (380 in technical/vocational/arts sections).

The 55 polytechnics operate independently from the regular public schools but receive public subsidy and are accountable to and under the oversight of the SEE. They must serve students without regard to family income. They have the key capacities not available to the regular public schools: to select their teachers based on character, motivation, and competence independent of political considerations, and to select and retain students based not on family income but on their commitment to learn and abide by basic expectations regarding discipline and social behaviour. The OECD team agrees with the suggestion that the polytechnics, while not a large-scale alternative to a system of strong public schools, could serve as models for new approaches to school governance. The polytechnics could complement the public schools by setting examples of successful approaches to serving students and communities in high poverty areas of the country.[81]

Centralised budget and resource allocation

The budget and resource allocation process (including teacher assignments) remains highly centralised. As noted in Chapter 1, a high percentage of the budget allocated to education is not allocated to any specific level (the highest percentage among LAC countries). The Office of the Presidency retains significant discretionary power in the management and allocation of these resources.[82] The OECD team appreciates the benefits of the President having strong discretionary powers in order to allocate scarce resources to address strategic priorities. Nevertheless, the current system results in limited authority and responsibility for resource allocation at the level of the State Secretary of Education (SEE) as well as the State Secretary of Higher Education, Science and Technology (SEESCyT). The OECD team found little evidence of significant authority related to budget and resources at the regional, district or school/education centre level.

81 Murray, Gerald F., *El Colegio Y La Escuela*, 2005, pp. 370-371.

82 As noted in paragraph 32, budgetary reforms since the OECD review have significantly reduced the percentage of the budget reserved for the discretion of the Office of the Presidency. In 2006, for example, only 10.4% was reserved to this level.

School principals apparently have more of a role in determining teacher assignments, but again, these decisions remain highly centralised under the control of the SEE.

Decentralisation of budget and resource allocation will require significant strengthening of the management and accountability at each level of the system, including professional development. The culture of the country's highly authoritarian past will take years to change. Also, concerns about potential corruption and misuse of funds remain. Nonetheless, it is important for the Dominican Republic to move over time to a point where the administrators at each level of the system have some discretionary authority regarding the budget, resource allocation, and assignment of human resources, subject to central performance and accountability requirements.

Information for policy-making, monitoring, and improving student learning

A survey of the formulation and availability of information about school systems carried out under the auspices of the Inter-American Development Bank (IDB) provides insights regarding existing capacity and plans for improvement beyond those gained by the OECD team during its visit to the country.[83] In response to a question on whether the SEE has formal evaluation mechanisms to monitor progress in nine areas, the Dominican Republic reported that it had no formal mechanisms in the areas of:

- Teacher quality and teacher training.
- Education costs and financing.
- Effectiveness of the administration and management of schools, and leadership capacity at the different levels of the system.
- Teacher performance levels.

Only in the areas of monitoring student grade-level promotion did the Dominican Republic report that it put formal mechanisms in place through the National Tests at the Basic Level and the Third Cycle for Adults.[84]

Regarding mechanisms for accountability, the Dominican Republic reported that it is making efforts to promote and encourage social responsibility and accountability, including:

[83] Fernández, 2005.

[84] *Ibid.*

- Days of reflection at the regional and district levels, with the participation of community members, for diagnosis of the local educational reality and definition of an improvement plan. In each regional and educational district, there are quality management teams that have been constituted to co-ordinate and lead the planning processes and development of plans from the perspective of "transforming management in order to transform the school".

- Study of the actual time required for teachers' work in the centres and in the classroom carried out by Gallup, under the auspices of the SEE and EDUCA85 (discussed in Chapter 3).

- The establishment of the National Evaluation Day (third Wednesday of the month of October each year) in order to recognise teamwork, by granting recognition to the educational centre, educational district and region that had the highest averages on the National Tests.

- Submission of reports on the assessment results from the National Tests by students, sections and centres, where the averages are shown in each subject, as well as for the performance levels, through the percentage of responses achieved on each test, comparing each case with similar sections and centres (according to financing and areas) at the district, regional and national levels.[86]

The Dominican Republic also reported that a National System for the Evaluation of Education Quality was being developed that would make it possible to systematise and analyse information and findings on the state of the development of educational quality. The SEE reported that computer applications are currently being developed which will allow:

- Linking of different databases (national tests, human resources, infrastructure, statistics, school mapping) in order to be able to study the principal indicators of advances in quality.

- Giving students and centres, as well as the educational district and regional authorities, access to information from the evaluations via the intranet and voicemail.

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[85] EDUCA, Acción para la Educación Básica, Inc. [Action for Basic Education, Inc.] is a non-governmental, non-profit organisation headquartered in the Dominican Republic, founded in March 1989 and incorporated under Resolution 286-89 of July 31, 1989, by a group of business people interested in contributing to the improvement of the reach and quality of basic education in the country.

[86] Fernández 2005, p. 39.

From the perspective of the OECD team, these positive developments reflect a commitment to address the problems observed in the course of the review.

Assessing and monitoring student performance

A basic concern, however, is the significant reliance on an unsound system of National Tests as the core means to monitor performance.

The current system of National Testing is seriously flawed as a means to monitor system performance and to provide useful information to schools and teachers to improve student learning. The problems are well known to Dominican authorities, and are illustrated in the earlier discussions of student learning. The challenge facing the Dominican Republic is to balance the multiple purposes and uses of assessment, issues that were apparently debated in the mid-1990s at the time the National Tests were reinstated.[87] Among these purposes are:

- Student promotion (the current practice is to use National Test results for only 30% of the basis for student promotion).
- Diagnosis for the purpose of improving individual student learning or informing school improvement.
- Monitoring school, regional or nationwide performance over time.

From the perspective of the OECD team, the current National Testing system has several fundamental weaknesses:

- No assessment takes place at the level of the first cycle of basic education. As a consequence, no data are available on student learning at this level, the most important beginning point for successful student learning in subsequent years. The CEIC project *(Consorcio de Evaluación e Investigación Educativa)* as described above illustrated the value of this kind of information in assessing performance and identifying areas for improvement.
- No assessment takes place at the end of the first cycle of the middle level. As a consequence, neither students nor schools have good information on which to base strategies for improvement prior to the time that students enter into specific modalities in the second cycle (academic, technical/professional, and the arts).

[87] Alvarez, 2004.

- Use of the National Tests on a "high stakes" basis for student promotion, even at the level of 30%, places a significant level of "blame" for low performance on the individual student, while the reasons for low performance are far more complex (poverty, poor school conditions, lack of instructional time as described earlier, etc.) and far beyond the control and responsibility of individual students.

- The current National Tests are not designed to monitor changes in student, school or system performance over time. The SEE lists the score for several years in tables (see the CBR) in a manner that implies that the differences in score from one year to another have meaning. The data cannot be used for this purpose.

- The POMA assessment *(Prueba de Dirección y Medida Académica)* being used to assess readiness of students for tertiary-level learning could provide important information for the middle-level system on the quality of preparation (especially in the general modality of the secondary cycle). The OECD team did not learn of any co-ordination between the development and use of POMA with efforts to improve student learning at the middle level.

Because of the limitations of the National Tests to monitor change, the OECD team is seriously concerned about the emphasis on these assessments as reported by the Dominican Republic in the IDB survey cited above. The team applauds the SEE for emphasising evaluation and the use for student learning for discussions at the education centre, regional and national levels. The problem is that the National Tests in their current form are not scaled for monitoring change, and are an inappropriate if not misleading source of information for this purpose.

Except for the data from the UNESCO OREALC international assessment in 1998, no information was available to the OECD team to compare the performance of Dominican students with other countries. As indicated earlier, the Dominican Republic is participating in the secondary international comparative study (SERCE) conducted by the Laboratorio Latinoamericano de Evaluacion de la Calidad de la Educacion, (LLECE). The study was conducted in 2005, but the results had not been published at the time of the OECD review. There have been discussions in the past but no decision made about participating in other international assessments. The most widely recognised studies include the Trends in International Mathematics and Science Study (TIMSS), and assessment of 4^{th} and 8^{th} grade students, the Progress in International Reading Literacy (PIRLS) assessment of 4^{th} graders, and the Programme for International Student Assessment (PISA), an assessment of 15 year-olds in reading,

mathematics and science. Participation in one or more of these assessments should be an integral part of the Dominican Republic's national evaluation system.[88]

Reforming the national testing and assessment instruments and processes, giving attention to the multiple purposes as cited above, must be a high priority. Without an effective monitoring system, the Dominican Republic has no means to determine whether it is making progress in the most basic of its goals, especially the second of the Millennium Development Goals.

Culture and legal structure for professional education leadership and management

Perhaps the most significant, overarching barrier to effective policy implementation is the historically highly centralised, politically-driven system of appointments to key management positions at the level of the SEE, the regions, districts, and on down through the education system. The high turnover of key personnel with the change in the Presidency and the strong association of membership in a political party with employment severely undermine the capacity of the Dominican Republic to implement and sustain education reform. The highest priority must be given to civil service reform and to establishing a cadre of strong professional education leaders and directors at every level of the system (school, district, region and the SEE) with employment status that is determined by competition based on professional merit, not political affiliation.

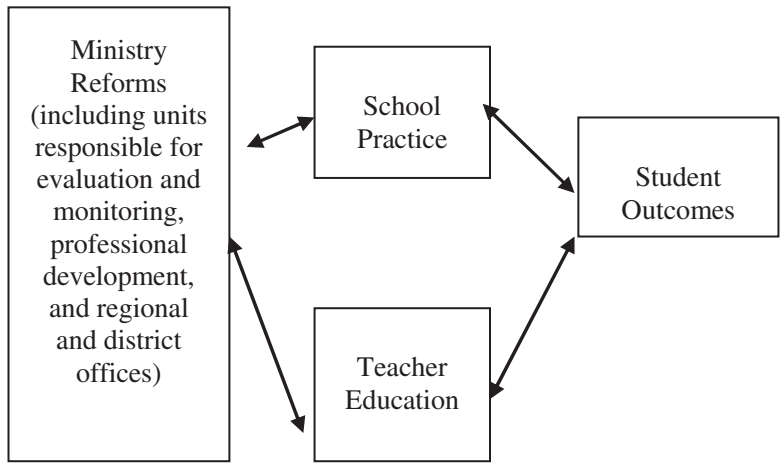
Policy implementation

The new *Modelo de Gestiónde la Calidad para los Centros Educativos* as outlined above is promising, but the OECD team is concerned about the capacity of the SEE to implement this model, especially in providing the necessary *horizontal* support for schools, across the country's entire education system. Such a massive change is likely to lead to the same implementation problems as experienced with the reforms of the 1990s. The experience of other countries (*e.g.* Chile) underscores that reforms implemented from above (*vertically*) will not succeed unless they are

[88] Latin American/Caribbean Countries participating in these international ssessments include: Argentina, Brazil Chile, Colombia, Mexico, and Uruguay in PISA 2006, Argentina, Belize, Colombia and Trinidad and Tobago in PIRLS 2006, and Argentina, Chile, Colombia, El Salvador, and Honduras in TIMSS 2007.

accompanied by bottom-up reforms supported *horizontally*, through significant professional development and support for each school in the reform process. It is also especially important, as emphasised in Chapter 5, that initial teacher education be reformed to prepare teachers for new roles and responsibilities in the new model. Figure 6.1, drawn from the OECD Review of Education Policies in Chile, illustrates these key components of change needed to achieve improved student outcomes. Training of parents and community members to participate in the new model is another important dimension of the *horizontal* support for reform.

Figure 6.1 **Relations among components of an Educational System**



Source: OECD (2004). Reviews of National Policies for Education: Chile, OECD, p.266.

The OECD team therefore strongly recommends that the SEE undertake a multi-year step-by-step process beginning with a selected, manageable number of schools, using the experience with these schools as the focal point for reforming the supporting institutions and structures, and developing training materials and opportunities for other schools. The SEE should establish a goal that all schools will have adopted the new model within a reasonable time (*e.g.* five years). The ability of schools to move to the new model will depend, however, on the changes in the supporting systems and networks surrounding each school. In light of the weakness of those supporting systems and networks in the Dominican Republic, it will take time and resources to reach all schools.

Recommendations

1. Implement civil service reforms to establish a cadre of strong professional education leaders and directors at every level of the system (school, district, region and the SEE) with employment status that is determined by competition based on professional merit, not political affiliation, and whose tenure is not affected by changes in political leadership.
2. Reform the national testing and assessment instruments and processes, giving attention to the multiple purposes as cited above: diagnosis for improvement, monitoring and evaluating student learning at the school, regional and national level, and evaluating whether students have mastered the knowledge necessary to advance to the next education level. In particular:
    - Develop an assessment to be used for diagnosis and improvement for the first cycle of basic education, focused on measuring the extent to which students have mastered the curriculum in key areas of reading comprehension and mathematics.
    - Develop a national system for assessing changes in student performance in key areas (*e.g.* reading comprehension and mathematics) over time. Take advantage of the CEIE *(Consorcio de Evaluación e Investigación Educativa)* project funded by USAID as a source of instruments, technical resources and expertise for systemic evaluation in the primary grades that would permit the monitoring of student performance, opportunities to learn, and organisational characteristics of schools over time.
    - Develop an assessment at the end of the first cycle of the middle level to be used for diagnosis and improvement and to provide students with information on areas for improvement necessary for success in the second cycle and beyond.
    - Participate in PISA and other international assessments to enable the Dominican Republic to compare student performance with other countries and to develop a deeper understanding of the strengths and weaknesses of the education system.
    - Provide feedback to the middle-level schools on the results of the POMA assessment to inform efforts to strengthen preparation for tertiary-level study (especially in the general modality of the second cycle).

3. Delegate from the Office of the Presidency increased budgetary and resource responsibility to the State Secretariat of Education (SEE) and the State Secretariat of Higher Education, Science and Technology (SEESCyT), and in turn, provide for increased discretionary authority at each level regarding the budget, resource allocation, and assignment of human resources, subject to performance and accountability requirements.

4. Pursue provisions of Law on Education and current policy intentions related to the Modelo de Gestión de la Calidad para los Centros Educativos. Take steps to provide professional development and support for the decentralisation process:

   - Clarify the definition of school-level or education centre responsibilities for leadership, planning and improvement. Establish unified, co-ordinated leadership for education centres with multiple shifts and different levels of school.

   - Require school development plans shaped with extensive involvement of teachers, parents and communities, setting operational objectives.

   - Establish indicators for monitoring and steering the schools, and ensure that each school has the basic technology necessary to access and use available data (*e.g.* through internet access to the SEE website).

   - Strengthen initial training of school principals and education professionals at the district, regional and national (SEE) levels.

   - Implement intended changes in the role of regional and district staffs from inspection to support, professional development, and monitoring. Improve competences of district supervisors in order to enable them to help teachers in adopting new teaching methods and enhancing more active learning of the students.

5. Implement fundamental changes in the mission and functions of the SEE to focus on strategic planning, sustained, step-by-step implementation of reforms, strategic allocation of budgetary resources, monitoring and evaluation of system performance, and technical assistance and support for teachers, schools, and other decentralised institutions, with a focus on policy leadership and monitoring.

6. Explore models of school governance, consistent with the Modelo de Gestiónde la Calidad para los Centros Educativos, that would allow schools serving the highest priority areas and students (*e.g.* basic schools serving high poverty, urban fringe areas) to adopt forms of governance

that allow them greater flexibility to increase student learning. Whatever models are adopted, they should insist on:

- Open access without regard to family income.
- Free access, especially for the years of compulsory education.
- Public accountability for performance according to the SEE's monitoring requirements.

7. Design and implement reforms on a step-by-step, phased basis, using demonstrations and pilot projects where possible before bringing reforms to scale. Allow time for necessary professional development, monitoring and evaluation. Avoid large-scale, massive changes to be implemented in a short time.

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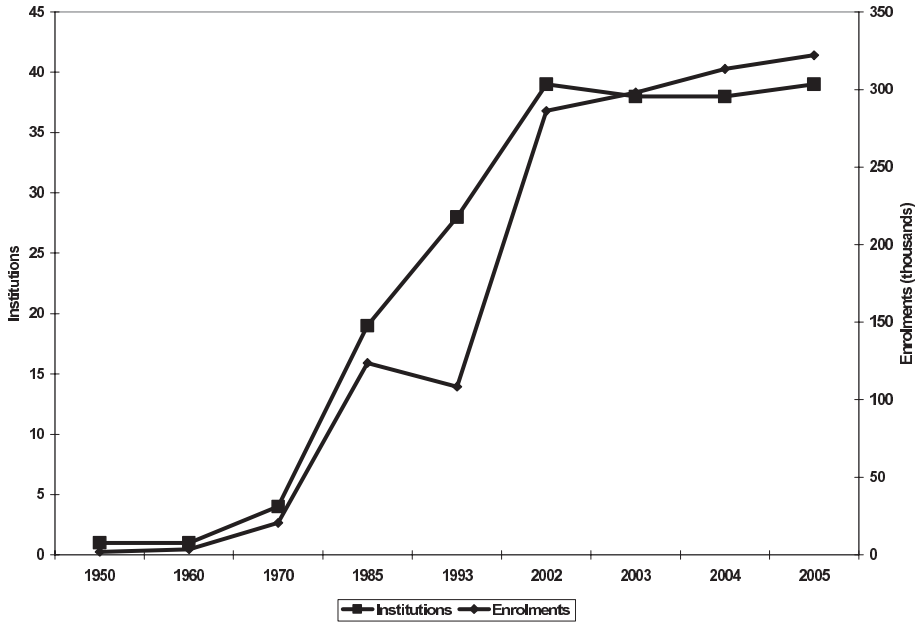
Chapter 7. Tertiary Education in the Dominican Republic

Chapter 7 moves the discussion to the tertiary education system. It gives statistics on current levels of enrolment in tertiary education and discusses the different tertiary education institutions. There is a general outline of the functions and goals of a tertiary education system and the roles played by public and private institutions. The specifics of the Dominican Republic system are then outlined, including quality, efficiency, preparation for the labour market and academic qualifications. Further areas of tertiary education with room for improvement are in graduate education, research, internationalisation, financing and leadership. The chapter concludes with recommendations for the development of tertiary education.

Enrolment

Tertiary education has been growing steadily in the Dominican Republic since the 1990s. In 1993, there were 108 335 students in tertiary education institutions, a gross enrolment rate of 10%, with reference to the population aged 18-24. By 2005 there were an estimated 322 103 students, a gross rate of 25.8. Most of the growth took place between 1992 and 2000. After a brief pause in 2001, growth has continued since 2002.

Figure 7.1 **Increase in institutions and enrolment in tertiary education, 1950-2005**



Source: Country Background Report, May 2006, p. 50. Statistical Department, SEESCyT, 2003.

Note: Preliminary data for 2004 and 2005.

As in all Latin American and Caribbean countries, tertiary education in the Dominican Republic follows more of a traditional continental European model than one similar to that found in the United States and the Bologna framework that European countries are implementing. In the Dominican Republic, students completing their secondary education get a "*bachillerato*", similar to the French "*baccalauréat*," and may enter tertiary education at either a technical level (two-year programmes) or "graduate" level (four-year programmes) leading to a graduation degree or "*licenciatura*". Master and doctoral programmes are considered "post-graduate" degrees. There are three types of tertiary education institutions: universities, technical institutes (*Instituto Técnico de Estudios Superiores)*, and specialised institutes (*Institutos Especializados de Estudios Superiores*). There are no "colleges" at the tertiary education level. The term "*colegio*" is used for secondary schools.

The Universidad Autónoma de Santo Domingo, UASD, established in 1538 by the Catholic Church as the Universidad Santo Tomás de Aquino, and turned into a lay university in the early 19th century, is the oldest tertiary

education institution in the Americas, and, until 1960, was the only university in the country.[89] Today, there are 44 tertiary education institutions of different size and missions. UASD, however, remains the main institution, with 159 396 students in 2005, 49.5% of the total enrolment. Following the tradition of many other national universities in Latin America, UASD grants admission to all students completing secondary education (*bachillerato*), and is almost free of tuition except for graduate degree programmes. The university authorities are elected internally by vote from the academic community and the students, and have full autonomy in all academic issues. The budget is supplied by the central government, based on yearly proposals prepared by the University authorities, and administered directly by the university, without interference from SEESCyT. In addition to its main campus in Santo Domingo, UASD has eleven other locations in different regions of the Dominican Republic. Regional locations, however, do not have the autonomy to establish and manage their own course programmes, and their students and staff are fully integrated with and dependent on the corresponding faculties in Santo Domingo.

The second largest tertiary education institution is the Universidad Tecnológica de Santiago, UTESA, with 38 870 students, followed by the Universidad Dominicana Organización y Método, O&M (32 871). Universidad del Caribe, UNICARIBE (13 971), and the Pontificia Universidad Católica Madre y Maestra, PUCMM (13 050). All these institutions are private. Together with UASD, they account for 80% of the country's enrolment, with the remaining students scattered in 39 institutions varying from 29 to 7.5 thousand students.

The functions and goals of tertiary education

In any country, tertiary education should perform a plurality of functions. For the students, it should be an opportunity to improve their culture and professional skills, bringing them social recognition, and increasing their chances for social mobility and of securing stable and well-paid jobs. Tertiary education is also an important part of youth culture, and a period for establishing life-long social interactions and bonds. For society, tertiary education should be a means to develop the civic and moral values associated with higher learning and for acquiring the technical and professional skills needed for social institutions to function properly and for the economy to grow. Historically, the leading tertiary education institutions

[89] See for a brief history of the tertiary education institutions in the Dominican Republic since the early 16th century, (Instituto de Educación Superior para América Latina y el Caribe IESALC/UNESCO & Secretaría de Estado de Educación Superior, 2002).

have also been privileged spaces for philosophical, humanistic and scientific inquiry, with a tradition of respect for divergent views and reasoned controversy, and the prevalence of rational arguments and empirical evidence over statements of dogma and authoritarian belief. In Latin America, national universities such as the Universidad Autónoma de Santo Domingo, and their equivalent institutions in Argentina, Brazil, Chile, Mexico, Peru, Uruguay and Venezuela, among others, have been a space for the expression and struggle for the ideals of democracy, personal freedom and social equity, often in opposition and confrontation to authoritarian rulers and dictatorships.

In the drive to fulfil all these goals and expectations, tertiary education institutions are growing everywhere and becoming increasingly complex and expensive. Fifty years ago, only a small percentage of the children of well-educated professionals, clerics and civil servants attended universities anywhere. Today, in many OECD countries, more than 50% of the population aged 18-24 are enrolled in tertiary education. In the past, teaching was provided largely by professional lawyers, medical doctors, engineers and civil servants who did not depend on academic salaries for their maintenance. Today, universities have large, permanent, full-time academic staff that require, beside their salaries, office space, laboratories, libraries, computing facilities and technical personnel to help in their research work. Academic administration in the past was performed mostly by the professors themselves, who decided about teaching schedules, course programmes and criteria for admission of students and the hiring of new staff; modern universities require large and specialised administrative staff to maintain the buildings and campus space, to maintain the student records, and administer the institution's financial resources. The growing demand for tertiary education is also fuelled by the fact that education is, by nature, a "positional good", in the sense that those with tertiary education credentials will almost always have a higher social and economic status than those who have achieved less. This leads to a growing tendency to reach for higher and higher degrees – at least four-year certificates, plus specialisations of different kinds, plus master and doctoral degrees – and the rejection of short-term, vocational or technological qualifications.

In practice, not all countries can develop and support tertiary education institutions that can perform all these functions equally well, and there are tensions and sometimes contradictions among these goals themselves: between emphasis on research or teaching, general or specialised, professional, education, graduate or post-graduate teaching. To extend tertiary education benefits to all, tertiary education institutions should provide open access, strive for academic and professional excellence, and

should be selective, that is, they should be able to set entrance requirements to ensure that students are prepared for tertiary education.

To ensure access to all sectors in society, governments should bear a significant share of the responsibility for funding of public institutions to enable them to maintain their laboratories, libraries and buildings, and to pay competitive salaries to their professors. Traditions vary significantly among countries on whether students share some of the costs. In some countries, such as the Dominican Republic, attendance at public institutions is essentially free, but in other countries students share the costs through tuition fees. When governments are unwilling or unable to provide the funding necessary to keep up with increasing costs, they authorise institutions to charge tuition, which is offset by student grants and loans, based on student income levels and other criteria. They also authorise and encourage institutions to seek alternative sources of income.

Each country and institution must face these dilemmas according to their priorities, the opportunities they perceive, the human and material resources they have at their disposal, and the political and institutional constraints they face. As countries establish their policies and priorities, they should be able to consider the following aspects:

- Equity: Is tertiary education providing equal opportunities for personal advancement to people of different social conditions, or, on the contrary, is it merely reproducing, or even aggravating, the differences in opportunity associated with differences in income, family education and culture?
- Relevance and quality: Are the tertiary education institutions providing their students with the full range of competencies and skills that the country needs? Are the institutions competitive in terms of the quality of their academic programmes and research? Are the institutions linked to the needs of employers and the country's developing economy?
- Efficiency: Are the institutions using wisely the public and private resources at their disposal, in terms of the benefits they provide to their students and society?

Roles of public and private institutions

In principle, a tertiary education system with a large university with open admissions, as practiced by the *Universidad Autónoma de Santo Domingo* (UASD), is the most equitable arrangement possible, since it does not discriminate against prospective applicants on any grounds, except on

having a valid secondary school certificate. However, in practice, tertiary education in the Dominican Republic is highly stratified between a few private, elite institutions, and the mass-oriented public system. In the past, only the children of the political and economic elite in the country completed their basic education either in religious schools or in a few, selected public institutions deemed to be of good quality by those who remember them. After 1961, with the fall of the Trujillo regime, the traditional public schools were swept by the intense political mobilisation and uncertainties that dominated the country. They were also affected by the growing number of students being admitted and the limited resources the institutions received to do their work. According to one commentator, "calm teaching and deep study, noble characteristics of the teachers in the past, were now considered bourgeois vices. The new pedagogical hero became the bearded teacher-agitator, with his slogans, the Che Guevara T-shirt, and the black bonnet."[90]

This perception of what was happening to public education meant that those who could, sent their children to private schools, and from there to private universities. The first private university, established in 1962, was the *Pontificia Universidad Católica Madre y Maestra*, as an alternative to the intense political conflicts that engulfed UASD. The university received support from the governments of Balaguer, Guzmán and Jorge Blanco. It received resources derived from the central government, autonomous entities, state enterprises, private companies and broad international support (IDB, UNDP, AID, American universities). The support from the State, the Church and the American government assured it a strong institutional stability.[91] Interviews by the OECD team with principals of public and private schools and universities confirmed that, even today, students from the most prestigious private schools are expected to attend the most prestigious private universities, while students from public schools, if they go on to tertiary education, will usually go to UASD.

Secondary education *(nivel medio)* preparation for tertiary education

As summarised in Chapter 3, preliminary results from an assessment test developed by SEESCyT reveal significant gaps in the preparation at the secondary level (*nivel medio*) for university-level study. From the viewpoint of equity, it is appropriate for public universities to admit less qualified students coming presumably from poor families and educated in public

90 Murray, 2005, p. 8.

91 IESALC/UNESCO & SEESCYT, 2002, pp. 15-16.

schools, provided that the universities offer levelling or remedial instruction and support services to prepare these students for university-level work. The problem is that UASD does not have the necessary pedagogical and financial resources to provide these services.

Differences in completion rates

There is no direct comparative assessment of the quality of education provided by UASD and other institutions, but information on completion rates and financial resources give indirect support to the general impression gained from the OECD team's interviews that the quality of education provided at the leading private universities is better than that which is provided at UASD.

Table 7.1 provides a rough estimation of the completion rates of the main universities in the country. Assuming that the number of students being admitted each year is constant, and that it takes four years to obtain a four-year degree, 25% of the student body should be graduating each year. Only INTEC and Instituto Salome Ureña are close to this figure. On the other extreme, UASD graduates only about 6% of its students each year.

A more detailed study of student drop-outs at UASD showed that in broad terms only 25% of the students in the 1999-2003 period obtained their degrees, with a higher rate for women than for men (29% and 20%, respectively), and important differences by fields of study.[92] This preliminary estimation was corrected by the use of academic records of the student cohort of 1995, and by the assumption that half of the students that remain in the university after five years will never complete their degrees. At the end, the drop-out rates were estimated to be 49% for medicine, 64% in education, 67% in accounting, 66% in Law, and 73% in psychology and engineering.[93] To understand the reasons for such high levels of dropouts, the study team interviewed 12 former students as well as university officers. The main justifications presented for leaving the university were the need to work, the difficulty in combining study and work time schedules, the difficulty in following the contents of some disciplines, the need for women to take care of their families, and so on. According to the author, there is a long-term tendency to reduce the dropout rates at UASD, because of the improvement of the political climate at the university, with the end of internal conflicts that used to lead to the extension of the academic teaching

92 Cabral, 2005, Table 8, p. 16.

93 *Ibid*, p. 20-21.

periods, creating therefore better conditions for the students to complete their degrees.[94]

Table 7.1 **Student enrolment and completion rates in the main Dominican Republic universities, 2004**

	Enrolment				Completion		
	Total	Technical (2-year programmes)	Graduate (4-year programmes)	Graduate (Master programmes)	Degrees granted	Percent total	Percent graduates
UASD - Universidad Autónoma de Santo Domingo	143 013	2 250	140 763	*Ab*	8 051	5.63%	5.72%
UTESA - Universidad Tecnológica de Santiago	36 811	41	36 770	0	3 809	10.35%	10.36%
O&M - Universidad Dominicana Organización y Método	32 688	0	32 688	0	1 494	4.57%	4.57%
UNICARIBE - Universidad del Caribe	17 981	6	17 975	0	917	12.39%	12.39%
PUCMM - Pontificia Universidad Católica Madre y Maestra	13 192	507	12 200	1 485	2 227	10.33%	12.02%
UCE - Universidad Central del Este	8 573	7	8 493	73	1 466	14.03%	14.16%
UNAPEC - Universidad Apec	7 749	450	6 327	972	1 203	14.87%	18.21%
INTEC - Instituto Tecnológico de Santo Domingo	7 411	0	5 686	1 725	1 152	18.51%	24.13%
Instituto Superior de Formación Docente Salome Ureña	5 604	873	4 731	0	1 372	29.00%	29.00%

Source: SEESCyT. Country Background Report. Calculations by OECD Examiners Team.

Note: *Ab)* Data not available for post-graduate enrolment at UASD for 2004. Data available for 2005 from table no. 16A of the draft Country Report, October 2005 indicate that total enrolment at UASD was 159 396, including 2 917 at the two-year technical level (*nivel tecnico*),153 569 at the four-year graduate level (*nivel grado*), and 2 910 at the postgraduate level (*nivel postgrado*).

94 *Ibid*, p. 24.

For most of the students entering UASD, however, this is a frustrating experience. The policy of open admissions, which is meant to increase equity and give access to students with limited resources and deprived backgrounds, creates at the end an additional burden of frustration and wasted time for many of the students it was intended to benefit. Many of these students cannot complete their degrees for the lack of compatibility between the resources they have – both intellectual and economic – and the kind of support they get from the university. The university should have much more human and financial resources than it has to deal with this problem.

Relevance and quality

Tertiary education in the Dominican Republic is homogeneous in terms of the formal qualification it provides, and highly concentrated in a few areas, all with a limited technical and professional content. Most students are in four-year, professional degree courses, with few in short-term, technological or general education programmes. Post-graduate education is also limited, with a small number of professional Master's programmes. No Doctoral degrees are provided in the country, except, in some cases, in partnership with foreign institutions, and there is little in terms of academic research.

Table 7.2 **Student enrolment and graduation by field, Dominican Republic**

Field	Technical (2-year) programmes	Graduate (4-year) programmes	Graduate (Masters) programmes	Degree granted, 2004 (4-year programmes)	Percent graduating (4-year programmes)
Education	2 190	42 058	957	10 229	24.32%
Accounting	1 819	32 555	441	2 917	8.96%
Law	0	32 045	615	3 582	11.18%
Administration	159	24 214	2 429	3 300	13.63%
Information Technology	4 796	20 733	177	1 364	6.58%
Marketing	413	23 883	281	2 573	10.77%
Medicine	26	23 440	942	1 541	6.57%
Psychology	8	14 993	292	1 108	7.39%
Civil Engineering	88	12 426	50	703	5.66%
Industrial Engineering	81	11 378	25	897	7.88%
Total	9 580	237 725	6 209	28 214	11.87%

Source: SEESCyT,Students enrolled, 2005 (first semester), Country Background Report.

Quality assurance

The current legislation (Law 139-01, of 2001) in the Dominican Republic gives SEESCyT the responsibility for establishing and implementing a system of quality assurance for the country's tertiary education institutions. This legislation follows about 20 years of continuous efforts to develop quality assessment mechanisms, starting with the creation of the National Council of Education in 1980, with the task to co-ordinate, regulate and oversee the tertiary education institutions in the country, with the exception of UASD which is considered autonomous according to earlier legislation.[95] One of the problems the Council had to face was the proliferation of institutions granting tertiary degrees and calling themselves "university" in the absence of clear requirements of what such denomination should entail.

The differences between "universities" and other kinds of tertiary education are not precise, but, in many countries, the name "university" tends to be given only to institutions that provide degrees in the learned professions and develop research and grant doctoral degrees in different fields of knowledge. Other institutions receive names like institutes, schools or colleges. The "university" denomination comes with the assumption that the institution works at the frontier of knowledge, and should therefore be autonomous from external interference in academic matters. Non-university institutions have less autonomy and are more subject to external regulations and oversight. At present, in the Dominican Republic, the legislation distinguishes three types of tertiary education institutions: technical institutes that only teach at the technical level; specialised technical institutes that teach and grant degrees at the graduate and post-graduate levels; and universities that grant degrees at all levels in different fields of knowledge (Law 139-01, article 24). In practice, many institutions have received the "university" denomination by Presidential decree, and keep the title regardless of what they do. Those established or regulated by law are considered as fully autonomous – the *Universidad Autónoma de Santo Domingo* and the *Pontificia Universidad Católica Madre y Maestra*[96] – while the others are less so.

The 2001 legislation provides a comprehensive framework for the organisation of the country's system of tertiary education, science and

95 Tejada, 2004.

96 Two other institutions, for teacher education, are also autonomous, in terms of the 1997 general education legislation: the Instituto Superior de Formación Pedagógica and the Instituto Superior de Formación Docente en Educación Física.

technology, and gives the government the authority to make sure that the tertiary education, science and technology institutions respond properly to the "demands derived from the changes in the national and international contexts". At the same time, the legislation grants academic, administrative and institutional autonomy to the tertiary education institutions (article 33). The whole system is to be co-ordinated and supervised by a National Council of Higher Education, Science and Technology, with 23 members, including government officers and representatives of different academic institutions, professors, employees, students, members of the Armed Forces, and so on (article 40). Actual implementation is the task of the State Secretary for Higher Education, Science and Technology.

Chapter V of the 2001 legislation establishes the rules for the creation, operation and closure of tertiary education institutions. New institutions have to submit a request for approval to the State Secretariat, who, after assessing the documentation and making additional requests, issues a recommendation to the National Council. The new institutions are granted autonomy within the realm of activities allowed by the Council (as institutes, specialised institutes or universities). They have to be assessed by the SEESCyT every five years, and, if successful in two consecutive assessments, are entitled to create new course programmes without previous agreement from the Council. This autonomy can last at most for 15 years, and could be revoked if the institution fails in the assessment. Fully autonomous universities – UASD and PUCMM – are excluded from this requisite, and the others have to adapt to the new legislation.

Chapters VI and VII deal with quality assurance (*evaluación de la calidad*), which includes an initial stage of institutional self-evaluation followed by external evaluation, performed by the Secretariate or through external peer review. Chapter VIII deals with accreditation, a periodical procedure to provide a public recognition of the quality of an institution. Accreditations should be performed by private, non-profit accreditation agencies, and participation in the accreditation processes is voluntary.

In practice, there are already several experiences of academic assessment in the Dominican Republic, some of them prior to the 2001 legislation, implemented by the National Council of Education: two five-year comprehensive assessments, for the years 1989-1993 and 1994-1998, and, after 1996, career assessments in the areas of medicine, dentistry and law. The procedures for these evaluations were developed and negotiated in consultation with the institutions, and, according to Tejada, some medical course programmes were closed down for not meeting the minimum standards for the field.[97] In spite of its autonomy, UASD also participated in

[97] Tejada, p. 63.

this process. So far, the only fully accredited institution in the Dominican Republic is the *Instituto Tecnológico Santo Domingo* (INTEC), which concluded the accreditation process at the end of 2005, carried out by peer review examiners from outside the country. Seven other institutions are participating in the accreditation process, done through the *Asociación Dominicana para el Autoestudio y la Acreditación* (ADAAC), a non-profit agency established by a consortium of 12 Dominican institutions.

The establishment of the rules and regulations for academic assessment is an important step for the improvement of tertiary education institutions in the Dominican Republic, but it is not clear what their impact has been or can be. To have consequences, assessments should be carried and validated by independent peer reviewers; the results should be made public, and presented in ways can be easily understood by employers, students, authorities in national and international institutions. Comprehensive institutional assessments are important, but assessment of specific course programmes, particularly when made public through rankings or other kinds of classifications, can have a much stronger impact. Finally, assessments should have specific consequences, in terms of sanctions, incentives and compensatory support. Because of their extreme consequences, all-or-nothing punishments, such as closing down institutions or withdrawing their university status, are strongly resisted, and seldom work. So far, it is fair to say that that the systems of quality assurance being put in place by the Dominican Republic are in the right direction, but their impact has not yet been felt.

The current legislation in the Dominican Republic already allows for the assessments that the tertiary education system needs, and it is important that the *Universidad Autónoma*, in spite of its legal autonomy, has agreed to participate in these assessments. The existing system should be strengthened and improved. A quality assurance system should be technically well implemented, accepted as legitimate by the institutions that participate in them, and also recognised by other sectors in society, other branches of the government, the business sector, and among the public. To ensure the legitimacy of the quality assurance procedures, universities, directly or through their associations, should have an active participation in their creation. The *Asociación Dominicana de Rectores de Universidades* (ADRU) has proposed a system of quality indicators which is an example of the co-operation that is needed.[98] Because of the country's small size, it is essential to make use of reviewers from other countries, as ADAAC is already doing. International referees are important not only because they ensure more independence in the assessments, but also because their

[98] ADRU, 2001.

presence helps to strengthen the links between the academic communities in the Dominican Republic and abroad.

To improve the current assessment system, three steps are necessary. The first is to move from the assessment of institutions to the assessment of specific course programmes or careers, a change that is already being planned by SEESCyT. Good course programmes can exist in universities that are not so good, and vice versa. Second, assessments must be based on results, rather than on processes. The number of computers available to the students, the academic degrees of the professors, and whether the students like or not their professors, are reasonable indications of what the course programmes may achieve, but do not measure results as such. Direct measurements of results include knowledge tests by students as they graduate, and statistics on job placement and salaries earned later on in their careers. Third, there should be a system of positive and negative incentives associated with the assessments. For instance, good programmes should receive some kind of financial support or fellowships for their students. Courses that perform poorly should receive a warning, could be eligible for recovery programmes supported by SEESCyT and, in the worst cases, could be closed down.

Since the visit of the OECD examiners to the Dominican Republic, the State Secretary for Higher Education, Science and Technology has taken significant steps within the framework of "Policies, Strategies and Actions, 2004-2008) to strengthen quality assurance in higher education, through the implementation of the five year evaluation of higher education institutions. The purposes of these evaluations, as specified in Article 72, are the following:

- Contribute to the development and qualitative improvement of the system and of the institutions of which it is comprised.
- Guarantee the relevance, effectiveness and the efficiency of higher education and the activities of science and technology.
- Ensure that the supply of higher education responds to the demands and necessities for the training of human resources for society.
- Guarantee compliance with the current Law and the regulations that complement it.
- Maintain information for society regarding the performance of the institutions that make up the system.
- Utilize the results in the definition of policies directing the strengthening of the National System of Higher Education, Science and Technology.

In terms of the phases in the five-year evaluation, the Law indicates that these are two: the phase of internal evaluation or self-evaluation and the phase of external evaluation. The self-evaluation is a work internal to the higher education institutions undertaken with the coordination and support of the SEECyT. This must be part of the culture and institution as a mechanism for continuous improvement, so it must be a participative process, coherent with the approaches expressed in the institutional mission and the requirements of society.

Under the leadership of the SEECyT, the five-year evaluation had made significant progress in a first group of eight higher education institutions. These institutions have completed the self-evaluation phase and are preparing for the external evaluation phase. The process is underway for another eighteen institutions to begin the self-evaluation phase.[99]

Academic qualifications

One way of assessing the quality of tertiary education institutions is by looking at the academic qualifications and scientific productivity of their staff. This procedure is particularly significant when what is being evaluated is the quality of post-graduate education and research, and it is helped by the fact that indicators of scientific achievement – publications, citations, academic degrees and awards – are public and relatively easy to obtain. Assessment of teaching, however, is more difficult to do. Academic excellence and good post-graduate education do not always lead to good graduate and professional courses, and student achievement is strongly dependent on the students' previous education and socio-economic background. Student assessment of teachers, which is popular and widely adopted in the Dominican Republic, can be an indication of the professors' personal empathy and pedagogical skills, but says nothing about the content of their teaching. Assessment of professors by peers or department directors is always affected by in-group solidarity or tensions.

With these caveats in mind, it is possible to note that the academic qualification of tertiary education professors is still low. The statistics report the existence of 11 111 tertiary education teaching posts, but, because many people teach in one or more places, the number of tertiary education professors could be considerably lower. There are 216 teaching posts reporting a professor with a Ph.D. degree, about 2% of the total, but the number of Ph.D. degree holders according to SEESCyT is 140. Twenty-four

[99] Ana Daisy Garcia Gutiérrez, *Evaluation Quiquenal de la Calidad de las Instituciones de Educación Superior*.

percent reported a Master's degree, and another 24% reported some kind of specialisation; half of the professors did not hold more than their first degree.[100] Contrasted with the usual requirement that university professors should have a Doctoral degree, there is clearly a long way to go. Considering the small number of post-graduate students in the country, and the fact that most Master's degrees are in professional fields, the number of professors with MAs is quite high and a significant improvement over previous years, but still insufficient to provide the students with education at the appropriate level.

Few professors (2.5%) both in the public and the private sector have a full-time working contract.[101] Payment depends on the number of hours taught each week, and it is usual for the same person to teach in different institutions, public and private. At UASD, there is an academic career in which the professor starts as *adscrito* (appointed), moves later to *adjunto* (associate) and finally to *titular* (full professor). Advancement is by seniority only, rather than based on any kind of assessment for merit, and salaries are the same for each category, regardless of the professor's academic qualifications. Admission to the first stages should be through open, public exams, but the current practice is that only existing professors at UASD can apply to new vacancies as they become available. Once admitted at UASD, a professor cannot be dismissed, except in extreme circumstances. In spite of being paid by the number of hours they teach, they are entitled to several additional benefits, such as payment during the vacation period, health and life insurance, triple payment at Christmas time, and others. They all belong to a union, the Federation of Professors Association of UASD (FAPROUASD), a powerful organisation that participates actively in the negotiation of all matters related to UASD. UASD has also a small number of researchers, who are hired through a separate procedure and do not have teaching responsibilities nor the stability and advantages granted to the professors. In most private institutions, there is less stability and fewer benefits, and, in a few cases, salaries can be related to academic qualifications.

[100] IESALC/UNESCO & SEESCYT 2002, table 11, p. 70.

[101] The Universidad Católica Madre y Maestra reports that it has 1 109 professors, and that 36.5% of the credits are given by professors with full-time contracts, a percentage which reaches 65% in the basic sciences. There is no information, however, on the number of professors with such contracts (Pontifícia Universidad Católica Madre y Maestra, 2005), p. 9.

Efficiency

Tertiary education institutions in the Dominican Republic are efficient in the use of time, and the private sector has been efficient in the use of the limited resources received from student tuition and creative in the search for additional sources of income. As noted by Bernasconi, the Institutions of Higher Education in the Dominican Republic "work with three four-months or four three-months periods per year, admitting new students up to three times a year, working 44 weeks a year in classes and assessments, with classes from Monday to Saturday, and even on Sundays, up to three daily shifts." With this arrangement, courses which would last five to six years can be completed in three years and a half or four years.[102] However, the first two years of all courses are typically used for remedial education, and this is when most of the student dropout takes place. Because of the need to work, difficulties in following up with the course programmes, and economic constraints, fewer than 20% of the students complete their degrees in five years or less, and most of the students never complete their studies.

Among the positive aspects in the management of tertiary education institutions, Bernasconi lists, besides the efficient use of time, the expansion of international relations, the diversification of sources of financing, the development of graduate programmes in partnership with foreign institutions, and the constant update of course programmes through consultations with the business sector. Among the weak points, he stresses the limited use of information technology, the limited provision of products and services to the business sector, the lack of planning in the programmes for academic upgrading. For UASD, Bernasconi mentions the difficulty in managing about 140 000 students and 12 000 course programmes simultaneously.[103]

Tertiary education and the labour market

Education is by far the largest field of study, and the one with the highest proportion of students graduating, in relation to the number of students enrolled. Part of the explanation for such a high demand for education degrees is that, until recently, most teachers in basic education in the Dominican Republic (93 000 teaching posts in 2002/3) were educated in "Normal School" at the secondary level. Since 1992, there has been an effort to improve this situation, by requiring a tertiary education degree for new

[102] Bernasconi, p. 5.

[103] *Ibid*., p. 8.

staff and providing existing staff with the opportunity of obtaining degrees while working. A university degree ensures a higher salary in public institutions. For working teachers, classes are often given from Friday to Sunday only, or in the evenings. Another part of the explanation is that it is easy to be admitted to a teacher education programme, and there are no strong requirements that would stop less qualified students obtaining their degree. In fact, the proportion of students graduating in education regarding the number of students enrolled is the highest – above 24% – meaning that nearly all students get their degree after four years. This situation, however, is not likely to remain for long, since basic education in the Dominican Republic is no longer expanding, and the formal upgrading of the current teaching staff should be completed in a few years. Unfortunately, as discussed elsewhere in this report, this effort is not being translated into better education results being provided to students in basic education.

After education, the largest fields are in the management and clerical professions (accounting, law, administration, marketing), followed by the caring professions (psychology and medicine), and finally in civil and industrial engineering. Information technology (*informática*) is more related to the use of computer applications for business and administrative tasks than to software and hardware innovations, and in this sense should be included in the first group of "management and clerical professions", rather than in technology. This distribution of fields is compatible with the profile of the labour market in the Dominican Republic, dominated by the services sector.

There seems to be a kind of equilibrium between a labour market with little demand for qualified, technical manpower, and a tertiary education system that prepares people mostly for low-skill, administrative and clerical functions. This is not a healthy equilibrium, since salaries do not improve and the labour market is unable to provide jobs for a sizeable segment of the population, particularly in the younger age brackets. In 2004, 18% of the economically active population was unemployed, as measured by the "extended unemployment rate" (*tasa de desocupación ampliada*) estimated by the Central Bank. Unemployment was particularly high for the young (31.5% for the group ages 10-17, and 18.5% for the group ages 20-29, falling steadily after that).

It would be possible to argue that, given the structure of the Dominican Republic's economy, there would be no point in increasing the level of qualification of its workforce since it would lead either to more unemployment or to emigration of the best qualified to the United States and other places. But it is also possible to argue that there is no long-term future

in a society based on low-skilled labour[104] and that, with a better-educated population, the Dominican Republic should be able to develop a more sophisticated, knowledge-intensive economy and benefit more fully from its proximity with the United States, the links with Dominicans abroad, and the global economy more generally. Seen from this perspective, the excessive concentration of tertiary education in clerical activities is an indication that the Dominican Republic should make an effort to diversify the qualifications their universities provide, and to put more emphasis on education in more advanced degrees.

Table 7.3 **Distribution of workforce by occupational groups and economic activities, 2000-2004**

	Percent	
Occupational Groups	**Men**	**Women**
Manager	3.1	2.8
Professionals and intellectuals	4.5	9.0
Technical, middle-level	5.0	9.8
Office workers	3.5	13.6
Service Works	14.4	27.9
Skilled workers in agriculture and animal husbandry	14.9	1.1
Workers and craftsmen	20.7	4.8
Workers and drivers	14.8	7.9
Non-qualified workers	19.1	23.1
Total	100.0	100.0
Economic activities		
Agriculture and animal husbandry	21.5	1.9
Mining	0.3	0.6
Manufacturing	15.3	15.4
Electricity, gas and water	1.0	0.4
Construction	9.5	0.6
Commerce	20.9	21.4
Hotels and restaurants	3.8	8.9
Transports and communication	9.8	2.0
Insurance	1.4	2.9
Public administration	4.7	4.1
Other services	11.8	41.8
Total	100.0	100.0

Source: Encuesta de Mercado de Trabajo del Banco Central (Country Background Report).

The links – present and future – between the provision of education and the demands of the labour market are important policy considerations, but

[104] Redding, 1996.

by no means the only ones. The Dominican Republic needs to strengthen its public institutions, create an effective civil service, take care of its natural endowments, and improve the quality of life in its cities and towns. All this requires a well-educated population and good universities, which in turn require resources the country does not currently have. The expectation is that as the economy develops and grows the resources invested in tertiary education, by both the government and the private sector, will increase. In the meantime, however, issues remain regarding the quality of the education the students are getting in their universities, and the utilisation of existing resources.

Vertical differentiation: technical education, community colleges and the Bologna process.

Modern, large tertiary education systems have different kinds of institutions, from short-term, post-secondary technical schools to advanced, post-graduate research centres, with more traditional graduate courses in between. In the Dominican Republic, in contrast, most of the students are in conventional four-year course programmes, with only a few in short-term, technical education, and also few in more advanced programmes.

The extremely low completion rates at UASD and in most private institutions are a clear indication that many students would benefit from short-term courses that would provide them with a useful qualification in two years, instead of trying – and failing – to get their four-year degrees. Many institutions in the Dominican Republic offer short-term degrees, and there are experiences of trying to create "community colleges" patterned along the North American experience, but there is a general consensus that such short-term courses are rejected by the students.

This paradoxical situation is not peculiar to the Dominican Republic. In many countries, short-term, technical courses tend to be seen as a type of second-class education for less achieving students, usually from poorer socio-economic backgrounds, who cannot be admitted to the most prestigious universities.[105] When unemployment among the young is high, there is no incentive for the student to complete tertiary education in two years, if he can extend student life for four years or more. Finally, there is growing evidence that, even when a short-term, vocational education provides the student with an employable skill, his or her earnings in the long run will be lower than if the student receives a broader, four-year education.

[105] Castro & García, 2003; Grubb, 1985; Schwartzman & Christophe, 2005.

There are, however, successful examples of short-term course programmes, and they seem to meet a few known conditions. Germany and Switzerland, have a strong tradition of successful vocational education, which can be explained by the tight integration between their technical schools and the business sector and also by the fact that the salaries of the technically trained are not inferior, and often better, than the salaries in while-collar and clerical professions. Latin America has some examples of small scale, successful technical education, such as, in Brazil, the Industrial Apprenticeship System implemented by the Federation of Industries (SENAI), and, in Mexico, the National College of Technical Education.[106] In the Dominican Republic, INFOTEP has had important experiences in providing short-term technical education as discussed in Chapter 4. Nevertheless, the certifications granted by INFOTEP do not lead to opportunity for further education in the formal system, and this is a significant drawback for lifelong learning. In all these cases, there are close ties between education and the business sector. However, as discussed in Chapter 4, the industrial sector based on low-skilled labour is shrinking everywhere, the new technologies tend to require more broad knowledge than professional skills, and it is unlikely that the existing systems of short-term, vocational and technical education will extend beyond their current niches even in the most successful experiences.

The American Community College system, on the other hand, is a successful model primarily because it is not only an alternative track parallel to conventional tertiary education, but also as a step towards it. They are "undergraduate" institutions, a concept that does not exist in Europe or Latin America, and one of their functions is to provide students with remedial education to compensate for the shortcomings of their secondary education. They may be technical or vocational, but can also be general, and prepare students to continue their education in four-year colleges and later in advanced degrees in the professions or research.

In Europe, the American and British experience with short-term, undergraduate education is being adopted as part of the "Bologna Process", which is striving to bring the countries in the European Union into a common framework for their tertiary education systems.[107] In brief, the model organises tertiary education into three stages: an initial period of two or three years, highly differentiated, for general and vocational education; a second period of two years, for professional education, the equivalent of a master's degree; and another period of three years for advanced degrees in

[106] Lee, 1998.

[107] Council of Europe, 2004.

research and advanced professional education, for instance in medicine. An adaptation of this model was proposed for Brazil by the Brazilian Academy of Sciences.[108]

An important alternative for the Dominican Republic would be the establishment of a system of two-year tertiary education institutions providing programmes from technical training to courses preparing students beyond the two-year level toward more advanced degrees. All these courses should provide valid academic credentials, which could be used as credits when the students decide to continue their education. Insofar as possible, entry in this first level should be open to all students who complete their secondary education, as is now the case. For the higher levels of tertiary, however, students should be selected according to their choices and achievements in these first two years. With such a system, the number of students entering university-level professional degree courses such as education with inadequate academic preparation would be reduced significantly. Those who drop out from universities today would more likely remain enrolled in tertiary education, but enrol instead in a two-year institution and graduate with a valid academic qualification to compete in the job market, or to apply to an advanced programme of their choice and congruent with their experience and training.

In response to the needs at the two-year tertiary level, the State Secretary of Higher Education, Science and Technology (SEESCyT) has proposed the establishment of a tertiary education subsystem of public community technical institutes (*Subsistema Público de Institutos Técnicos Communitarios*). The mission of these institutes would be to offer opportunities for youth and adults to pursue tertiary-level study to prepare for high-level technical positions in the labour market or prepare for further study at the university level education studies. The institutes would also contribute to the needs of the economic sectors and quality of life in the communities in which they are established.[109] The first such institute is currently under construction and is due to open in 2008.

Horizontal differentiation: modernising and decentralising UASD

With 159 396 students and 11 locations besides the main campus in Santo Domingo, the Universidad Autónoma de Santo Domingo is clearly not manageable as an academic institution. University authorities at all levels are elected internally by secret vote from professors and

[108] Davidovitch, 2004.

[109] IESALC-UNESCO y SEESCYT 2002, pp. 46.

representatives from students and administrative personnel; and all decisions are made by collegial decision.[110] This mechanism ensures that the university authorities are responsive to their internal constituencies, but not necessarily to the broader society, or to the government. The university has full autonomy in setting up its course programmes and academic requirements, but has no control over its budget, which is established by the government, nor on investments, which are also decided independently by central government. The regional locations, on the other hand, do not have any kind of autonomy: the courses they provide are simple extensions of the courses and careers provided in Santo Domingo, and all the decisions about these courses are decided centrally.

It seems clear that UASD should plan to become a federation of independent or semi-independent regional units, similar to other large public universities such as the University of California in the United States or the university of the State of São Paulo in Brazil. It is clear that, in this decentralisation, not all regional locations should become a small copy of the Santo Domingo campus. Some of them may limit themselves to vocational two-year colleges, while others could provide specialisation of local interest not provided in Santo Domingo, while still others may provide other versions of the standard careers that exist in the capital. The transition from the current, centralised structure into a decentralised one cannot be done at once, since it needs detailed planning and an effort to upgrade the local facilities and to identify the local vocations and human resources. This, however, could be perceived as a process of giving more importance and weight to the regions, and could generate new sources of support from local communities.

UASD may also consider the possibility of decentralising its central units, creating independent or semi-independent faculties and institutes, each endowed with the ability to set up their course programmes, administer their resources, and decide their own academic policies. This would allow for decisions and management practices which are more congenial to specific fields, without forcing all sectors to abide to the same centralised procedures, rules and regulations.

When considering the changes that UASD needs to undergo, it is important to uphold the principle of university autonomy, with a long tradition in Latin America dating back from the Cordoba movement of 1918 that has kept many universities as a free space for the expression of libertarian, democratic and modern values in the face of many dictatorial and obscurantist regimes. But the concept of university autonomy in the 21st

[110] Guadilla, 2004.

century cannot be the same as the one of the early 20th century. Today, autonomous universities should have the authority and the competence to handle their own financial resources, should be open to permanent external assessment, transparent in the use of public resources, and respond effectively to society's needs for education, professional training and research. The basis for their autonomy cannot be just political, or a matter of legal regulation, but should be based on the permanent provision, to society, of the products and services it expects from institutions of higher learning.

Graduate education: the new Master's and Doctoral programmes

The Dominican Republic already has a small number of Master's programmes, but has still not started its own Doctoral programmes – all Ph.D.s in the country either received their degrees from a foreign university, or from a joint programme between a Dominican institution and a university abroad. In 2004, there were about 6 000 students in Master's programmes, most of them in administration, accounting, law and education; and another group of about 900 in medical specialisations. Most of the degrees are provided by three institutions: UASD, the Instituto Tecnológico Santo Domingo, INTEC, and the Pontificia Universidad Católica Madre y Maestra (PUCMM).

Most of the demand for these courses comes from the private labour market. With so many people holding degrees in the clerical professions, an MBA or similar degree can be very valuable to distinguish one person from the flock. Accordingly, students attending the Master's programmes are required to pay the costs of their education, and this is as it should be.

Another demand comes from the tertiary education institutions themselves. The trend is for tertiary education institutions to require an advanced degree from their professors, and this can be important for the assessments in which these institutions have to participate. To increase the academic qualification of their staff, institutions may introduce differential benefits to the professors according to their academic degrees, and this growing demand for higher degrees can lead to the creation of new graduate programmes. This could have a very positive effect if the graduate programmes now being created were of good quality, and if the acquisition of a Master's or a Doctoral degree were clear signs of academic achievement. However, there is also the risk of a new cycle of grade inflation, with advanced degree programmes being created just to provide professors already in their jobs (or new entrants) with a formal degree. A worrisome development in this line is the creation of advanced degrees in "higher education", taken by professors from different disciplines, instead of advanced degrees in their own fields of specialisation.

To avoid the risks of grade inflation, the Dominican Republic should consider creating a national, reliable, peer-review based assessment system for their advanced degree programmes, in order to recognise the degrees they provide for academic purposes. Institutions willing to provide MBAs and similar degrees for the marketplace may decide not to participate in such assessments; others, however, would benefit from being validated by a national body. The experience of the Brazilian co-ordination agency for graduate education (CAPES) could be taken into account in setting up this system.

No university in the Dominican Republic grants its own Doctoral degree, in recognition of the incipient level of academic scholarship in the country. However, there are several co-operation agreements between Dominican Republic institutions and foreign universities to provide Doctoral degrees, and fellowship programmes to send students for advanced degrees abroad. There are many co-operation agreements of this type with Spanish universities, and also with a few American institutions that have shown a special interest in the Dominican Republic, such as the University of Utah. One reason for this preference for Spain is the language, and also the lower costs of Spanish universities compared with those in the United States and other places. It would be important, however, if the Dominican Republic could make sure that foreign institutions providing advanced degrees in co-operation with national institutions are fully evaluated and recognised for their work and scholarship in their own country.

Research

There is very little in the Dominican Republic in terms of research, and there is no information available on the research institutions that may exist, and on what they are doing. UASD has some research units, but their researchers are not part of the regular teaching staff and there is no integration between them and the existing graduate programmes. No systematic, public information is available on the research developed by UASD or other research institutions in the country.

There are two related but different issues when it comes to research – the broad issues of the needs for research, development and innovation in a country, and university research, that is, research done within universities and in association with post-graduate degree programmes. In most countries, research in the broader sense – R&D&I – are the responsibility of specific agencies, which have to deal not only with the provision of support to specific research groups, but also with issues such as intellectual property, research incentives to industries, and implement research in specific fields, such as energy, environment protection, urban planning, and economic

development. University research, on the other hand, tends to be managed by the tertiary education authorities, and one of the central issues they have to deal with is to make sure that research is properly supported, of good quality, and has a significant impact in the education of high-level personnel. It is clear that the two activities overlap, and different countries have different traditions of developing research within universities, linked with their graduate programmes, or independently in other kinds of research settings.

Currently, SEESCyT is responsible for both sides of research, which is a large burden and very difficult to manage from the same institution. The general issues of R&D&I are beyond the scope of this document. It should be noted, however, that, given the country's small size and limited budget, it cannot expect to develop research which is competitive with what is being done in large economies, with the strong participation of the private sector. It can, however, develop competencies in fields where local research is irreplaceable – in some of areas of agriculture, environment protection, or geological surveys – and work in close co-operation with international partners. It should also create an environment that could attract international organisations and companies to develop some of their research and innovation in the country. For this, the existence of good universities, with well-trained and educated staff, is essential.

It is only natural that, if the country is able to develop research in some specific fields (whether through local investments or different types of partnership), the universities should be involved. University research, however, should not be tied too closely to broader economic and strategic considerations, but should be based, first, on quality considerations, and secondly on the existence of clear links between research and graduate education. The best way to build the post-graduate programmes the university needs is not by establishing the programmes first, and expecting them to produce research later. The best way is to start with research, add advanced students as research assistants, and gradually evolve into fully-fledged post-graduate research programmes.

It is important, to support university research, that resources should not be provided through the university administration but directly to the researchers or research groups. It is in the nature of the research activity that some research groups are much better than others, and need therefore more resources. Universities, however, tend to distribute their resources according to egalitarian rules, and may be too slow and bureaucratic in their decisions. SEESCyT has already a very promising experience of competitive grants for research, and this policy should be consolidated with more resources, a permanent peer review mechanism to select the best projects, and procedures to make the money available to those in charge as swiftly and

efficiently as possible. Universities and other receiving institutions should be stimulated to come up with matching support; in this way, university research could be strengthened, improving also graduate education as a whole.

The National Foundation for Scientific and Technological Innovation and Development (FONDOCYT), was established by Law 139-01,which created the National System of Higher Education, Science and Technology. The Foundation has an implementation strategy to promote scientific and technological development as well as to support productive innovation in key economic sectors for the competitiveness and development of the country. The Foundation develops and finances activities, programmes and projects of innovation and scientific and technological research and establishes a system of permanent promotion of scientific research and technology.

FONDOCYT began to operate in 2005 with the approval of 14 projects in the areas of biotechnology, basic science, energy, environment and health and an investment of DOP 14.4 million, equivalent to more than USD 443 000. In 2006, FONDOCYT undertook a second competition in the same areas and with an investment of DOP 18.7 million, equivalent to more than USD 575 000. Through the competition for projects in 2007, FONDOCYT received 42 proposals for new research initiatives, of which 13 projects were financed for more than DOP 23 million, equivalent of more than USD 730 000.

Internationalisation of tertiary education

Tertiary education in the Dominican Republic is already internationalised in many ways, with partnerships being developed between Dominican and foreign institutions, students doing their studies abroad, and many students from other countries, particularly Haiti, coming to study in Dominican universities. Internationally, there is a growing trend for the emergence of international education companies that seek to establish branches in different countries, and provide tertiary education as one kind of service like any other. This trend has led to complex negotiations at the level of the World Trade Organisation, and in some countries it has been perceived as a threat both to their national cultures and to the integrity of their public education systems.[111]

It is unlikely, however, that this kind of private, for-profit business of tertiary education will ever become larger and more important than other

[111] Guadilla, 2005.

modalities of tertiary education provision, through public universities as well as other kinds of private, non-profit education institutions. For the Dominican Republic, the expansion of this type of education provision, side by side and in co-operation with the existing institutions, should be seen as a positive contribution, since the level of education they can provide will hardly be below what is being provided by many of the existing private institutions in the country today.

More broadly, tertiary education in the Dominican Republic should be seen as the most powerful instrument to increase and improve the country's presence and participation in the global economy and society. Globalisation is unavoidable, but it can happen in different ways. Countries can participate as passive recipients of foreign merchandise and services, and providers of cheap labour and raw materials, and benefit very little from it; or they can make use of the flow of knowledge, information, know-how and resources that are available for those who have the competence to understand what is taking place and make the best possible use of the existing opportunities. The condition for this is good-quality education at all levels.

Financing

Compared with other countries in the region, the Dominican Republic provides very limited resources to education both in absolute terms in relation to the country's budget and national product, and the fraction of this resource going to tertiary education is also relatively small. In 2002, the total investment in tertiary education by the Dominican Republic was estimated in USD 48 million, with USD 42 million destined to UASD, and USD 6 million as subsidies to private institutions.[112] An estimate for 2004 gave a much smaller figure: USD 30.6 million (based on a exchange rate of 48 pesos per dollar), 95.6% of which for public universities.[113] Overall, the government provides about one-third of the resources spent on tertiary education in the country, with the remaining 2/3 coming from tuition fees, particularly in private institutions.[114] There are no clear criteria for the allocation of these resources, except the demand coming from the universities and the ability or willingness of the government to respond to it. The estimate was that the cost per student at UASD was USD 204 per year, an extremely low figure; the cost per graduating student, however, was

[112] Tejada, 2004, p. 25.

[113] Bernasconi, 2004.

[114] Gámez Seoane, 2003.

USD 3.479.[115] Most of the resources go to pay academic and administrative personnel, with more resources going to administration (44.1%) than to the academic staff proper (41.6%), with little left for current, non-personnel expenditures.[116] New investments, if any (such as the new library building in the Santo Domingo campus, and new buildings in some regional centres), are decided by the Presidency and implemented with discretionary funds outside the education budget.[117]

The low level of public investment means that no government funding is available to students with limited resources to assist them with tuition and maintenance costs. The Dominican Republic has a well-established system of credit loans administered by FUNDAPEC, a private, non-profit foundation that provides about 2 000 loans a year, mostly for graduate studies and studies abroad. The estimate is that only 2% of the student body in the Dominican Republic is able to use these resources, mainly to pay tuition in private institutions. FUNDAPEC has a successful record of loan recovery, and performs an important role, but still on a small scale. Most private institutions also have fellowships for deserving students who cannot pay, but this too is very limited.

Finally, it should be noted that the limited amount of public money that goes to private institutions is not based on any well-defined subsidy policy, but on historical, ad-hoc considerations taken sometime in the past. The relatively small *Instituto Católico Tecnológico de Barahona* gets the highest subsidy (6 million DPO in 2004), more than the much larger *Pontificia Universidad Católica Madre y Maestra*. By itself, public subsidy to private institutions is not necessarily regressive, but it becomes so when unrelated to any consideration for its social benefit.

The Dominican Republic would need to make a significant increase in public resources devoted to tertiary education to reach at least the levels required by law (see Chapter 1) or the levels of about 1% to 2% of GDP of other countries in the region. The current level of public funding in the Dominican Republic is about 0.3% of GDP. This increase would have to be part of a broader effort of the Dominican Republic to increase its public investments in all levels of education, which will require, in turn, a change in the country's tax system and other macroeconomic adjustments that are beyond the scope of this report. The OECD team recognises that, on the

[115] Bernasconi, 2004, p. 42.

[116] *Ibid*., 2004, p. 17.

[117] For the budgetary process in the Dominican Republic, and the use of discretionary funds in education, see Alvarez, 2004.

short run, an increase in tax revenues and social spending may run counter to the efforts to increase the country's competitiveness and keep the economy stable. However, in the medium term, it should be possible for the country to come into line with other economies of similar size and level of development.

In most of the world, the costs of tertiary education are being covered to an increasing extent by private resources including increased funding from student tuition fees, and the Dominican Republic should not be an exception. However, in no country does the tertiary education system depend entirely on private money. Public resources are necessary to provide support to advanced studies and research in areas for which there is no direct private demand, and to increase equity. Public resources are also needed to create incentives to steer the tertiary education system in appropriate directions, to support new initiatives, and to develop education statistics, to carry out education research, to implement assessment procedures, and to provide information to the public about the resources and quality of the country's tertiary education system. In a small country, there should also be resources to send students to study abroad, to bring qualified scholars from other countries, and to support exchange programmes.

Other countries in the Latin American region serve as reference for the levels of public expenditure in education that the Dominican Republic should achieve, but they may be also examples of the problems that may occur if resources increased without changing traditional ways of using them. As the Dominican Republic increases its investments in education, it should make sure that the new resources are used to foster effective academic and institutional practices, based on clear assessments of need, capability and results, and to implement the institutional reforms that are necessary.

The Dominican Republic may also find it necessary to increase the private (student and family) contribution to the costs of tertiary education in public universities. Currently, students at UASD are required to pay a nominal fee for the courses they attend. An alternative would be gradually to increase this fee for the students who can pay, while students who cannot afford it would receive a long-term loan to cover their costs. The experience of the current system of student loans, administered by FUNDAPEC, could be used to create a much wider loan programme for studies both in public and in private universities, as well as abroad. The revenue generated from such an increase in fees would not be enough to pay for the universities' current expenditures and investment needs, but there would be two main advantages in their introduction. First, it would generate additional support for the universities, which could be used for different purposes, including the provision of additional support for students coming from poor families

who may need to stop working in order to study. Second, it could reduce the number of students who enter the university without really intending to make a minimum investment to complete their education and get their degree.

In the long term, the Dominican Republic should develop a comprehensive, integrated, coherent set of financing policies for tertiary education consistent with national goals and priorities. Such a new policy should meet these criteria:

- Create and sustain the capacity of institutions in a manner consistent with their missions.
- Make tertiary education affordable for all qualifying Dominican students relative to students' personal or family income in terms of both the level of fees and the availability of student financial assistance (grants, loans, tax incentives and other means).
- Reflect a realistic assessment of the capacity of the State to fund tertiary education in relationship to tax capacity and other state commitments.
- Be fair and equitable, *e.g.* all parties in the equation (students, institutions and the State) must feel that they are being treated fairly and are receiving (and giving) their fair share.
- Be transparent, *e.g.* the funding flows among the parties must be discernible so that decisions made by the different parties can be mutually reinforcing.

National leadership for tertiary education, science and technology

The creation of the *Secretaría de Educación Superior, Ciencia y Tecnología*, as distinct from the Secretariat of Education, was a step in the right direction, since the issues of tertiary education, science and technology are very different from those of basic education. Now, SEESCyT needs to be strengthened as an agency capable of implementing a long-term strategy for the country. For this, it will be convenient to perform a careful assessment of the current responsibilities and organisation of the SEESCyT, to identify areas that have to be strengthened and functions that may be delegated to specific sectors. The establishment of Under-Secretaries for Higher Education and for Science and Technology, both of whom has

responsibilities for assessment and evaluation, is an important development.[118]

To work properly, these units need to be staffed by competent specialists, who need time to develop a proper institutional culture. If they are replaced by political whim anytime the government changes, no institutional consolidation is possible. It may be convenient to place some of these activities – for instance, statistics and assessment, and science and technology support – in independent agencies outside the direct administration, so as to provide them with more stability. The activities of statistics and assessment should not be treated as just another governmental activity, but as services provided to the country as a whole, from the institutions providing the information to the general public interested in the quality and characteristics of the tertiary education and research institutions.

Recommendations

1. Evolve towards a Bologna-type, three-tier system of tertiary education. Focus the first two to three years on technical education and general education to prepare students both for labour market and for advancement to the next level of tertiary education; the next two or three years for professional or Master's-level degrees; and the last two or three years for graduate and advanced professional education. Establish clear rules for certification at each level.
2. Establish through a step-by-step process over a period of five to ten years a subsystem of public community technical institutes *(Subsistema Público de Institutos Técnicos Communitarios)* in accordance with the project developed by the State Secretariat for Higher Education Science and Technology. At the end of the 10-year period, these institutes should be operating in every region of the country.
3. Consolidate the quality assessment system for higher education, based on peer review, to inform the public about the quality of institutions and

[118] Since the visit of the OECD examiners in December 2006, the SEESCYT has completed several important studies and publications that address concerns raised in the OECD review. These include (1) articulating, developing and financing diverse programmes that address the inequities in opportunities for student with limited resources, (2) increasing considerably the resources dedicated to investigation, (3) improving the training and development of professors, (4) improving statistics and evaluation of the higher education institutions, (5) initiating a full participatory and consensual process of planning for higher education with the horizon of 2020, and (6) increasing significantly the investment in higher education in addition to the levels observed by the OECD examiners in 2005.

career opportunities and the quality of the system as a whole and the programmes within it, and to provide clear criteria for resource allocation and the authorisation for granting higher level degrees.

4. Develop a nationwide system of course-programme (or career) assessment, based on the achievements of the graduating students.

5. Strengthen the competitive research grants programme within the Secretariat for Higher Education, Science and Technology, based on peer review.

6. Increase the amount of public resources devoted to tertiary education in line with the requirements of Article 91 of the Law on Higher Education, Science and Technology, to reach at least the level other countries in the region of about 1% of GDP, compared to the current level of 0.3% of GDP.

7. Develop a comprehensive, integrated, coherent set of financing policies for tertiary education consistent with national goals and priorities.

    - Recognise that private (student and other private) sources cannot be a substitute for continued public funding to ensure that the tertiary education system responds to major public priorities.

    - Insist that increases in public funding and revenues from student fees be matched by more effective academic and institutional practices, clear assessments of need, capability and results, and implementation of necessary institutional forms.

8. For the public sector, align the allocation of public resources to results, in terms of academic achievement and number of students graduating in different fields, rather than on existing costs. This policy would require a good system of indicators of achievement, clear rules for resource allocation, and a transition period from the current regime.

9. Base funding of private institutions on clear public goals with related public accountability for results, and cease funding of these institutions based on historical reasons.

10. Regarding the UASD: (also applicable to other public institutions):

    - Evolve from a centralised to a decentralised structure, giving more autonomy to regional locations in the creation and management of their own course programmes.

    - Allow different academic units and departments to develop their own extension and research programmes, and administer their own resources.

- Combine the existing open-admissions system at the first level with selective admission procedures.
- Bring research to the university mainstream, turning researchers into teachers, and stimulating research among the academic staff.
- Improve the management of human resources by recruiting for new vacancies through open competition, not limited to the existing academic staff; improve the existing career system, moving from promotion through seniority by promotion through merit; and limit tenure to a small group of high achievement academics, rather than to all.
- In graduate education, make sure that the joint Doctoral programmes are developed in partnership with high quality institutions. Diversify from the current concentration on Spain, to include the best universities in the United States, Europe and Latin America.
- Create a programme to support a small number of students going for advanced degree programmes in first-class universities abroad.

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Chapter 8. Conclusion: Moving From Diagnosis and Strategy to Action

Chapter 8 outlines the conclusions reached by the OECD review team based on the topics discussed in previous chapters. It also summarises policy initiatives undertaken by the Dominican Republic which deserve full support.

The Dominican Republic faces a daunting challenge to reach the Millennium Development Goal Two by 2015. It faces an even broader challenge to develop a globally competitive education system from the initial level through tertiary education. The Dominican Republic has set forth bold but pragmatic objectives to meet the expectations of the Millennium Development Goals.

The OECD team strongly supports the specific initiatives set forth in the document, *Los Objetivos del Milenio.* Nevertheless, the team has serious concerns that the Dominican Republic will not be able to implement even these intentionally pragmatic steps. The contrast is stark between bold, progressive intentions, and the reality of limited implementation over the past decade. Through the *Plan Decenal* of 1992, the *Ley de Educación* 66-97, and numerous other policy initiatives, the Dominican Republic has set forth plans that reflect the best practice in education reform in the world. The country made progress in the 1990s, especially in improving access, but progress on improving quality is at a standstill. Several comprehensive evaluations by the World Bank, Inter-American Development Bank, and the United Nations Development Programme, among others, have pointed to concrete steps that the country still must take to move forward. The problem is not lack of diagnosis, but lack of sustained action. Evidence of problems of quality is overwhelming:

- Students in grade 5 of public basic schools – the schools that serve 80% of the nation's children – did not achieve the results that their peers in accredited private schools did at grade 3. This implies that public basic school students are a full two years behind private

school students in their level of mastery of mathematics and reading comprehension. The deficits in learning only deepen as students attempt to move through the education system.

- At age 18, students in the Dominican Republic have been in school for 11.8 years, the third longest in the Latin American region, slightly shorter than Argentina and Chile. Despite 11.8 years in school, these students have had only 8.3 years of schooling because of the high rate of repetition.
- 55% of the entering students at the UASD are not prepared for university-level work.

Inadequate public financing underlies virtually every other problem. The Dominican Republic cannot implement bold reforms without increased funding. Providing substantially increased public funding to strengthen the public schools that educate more than 80% of the nation's young children must be a central priority. Again, the contrast between intent and reality is clear. Despite the provisions of *Ley de Educación* 66-97 requiring public expenditures in education to be 16% of the total public expenditure or 4% of the GDP, whichever is higher, plus 5% of total public expenditures for tertiary education, actual public commitments continue to lag far below these levels.

The OECD recognises the macroeconomic and political challenges facing the Dominican Republic in making dramatic changes in a short time period. Previous efforts to accomplish too much in too short a time with too few resources resulted in ineffective implementation. Therefore the OECD team asked this question: What practical, feasible steps could the Dominican Republic take to begin to turn the corner and make progress toward Millennium Development Goal Two, and other critical goals of the education system? This report includes several recommendations at the end of each chapter, many of which complement and reinforce *Los Objetivos del Milenio.*

With these points in mind, the OECD review team recommends ten priorities for action:

1. Reaffirm the intent to reach targets on funding as required by Article 197 of the Law on Education (Ley de Educación 66-97) and Article 91 of the Law on Higher Education, Science and Technology (Ley 139-01 de Educación Superior Ciencia y Tecnología):
   - Dedicate a significant portion of the funding for increased teacher salaries, connected to reforms in teacher careers and implementation of new evaluation systems.

- Focus public funding on strengthening public basic education, as recommended below.
- Undertake reforms to increase the transparency and clear division of responsibility for the budget, including strengthening the budgetary authority of the SEE and SEESCyT.

2. Focus first on grade-by-grade reforms to establish the fundamental conditions for learning in all public basic schools: a full five-hour day, qualified teachers recruited and compensated for a full teaching load, textbooks delivered on time, parents engaged in their children's education, and clean, welcoming learning environments:

   - Set a goal that by 2011 all students who complete grade 4 in all *public* basic level schools will have mastered reading comprehension and mathematics at the level expected for completing the first cycle. Set another goal that most students will be at the grade level appropriate for their age.
   - Begin grade-by-grade improvements at two levels simultaneously starting at grades 1 and 5 (*e.g.* 2007, grades 1 and 5; 2008, grades 2 and 6; 2009, grades 3 and 7; 2010, grades 4 and 8).
   - Begin at the basic school level to rebuild the teaching career in the Dominican Republic. Provide substantially increased compensation with incentives for performance for highly qualified teachers. Begin on a grade-by-grade basis following the sequence outlined above.
   - Provide targeted funding and special support for areas of high poverty and exceptionally low performance.
   - Set a goal that by 2011 all public basic level schools will have implemented the *Modelo de Gestión de la Calidad para los Centros Educativos.* Begin with a manageable number of pilot schools and then, based on the experience with these schools, extend the model to all basic schools by 2011.
   - Establish a goal to implement the model of *Escuela Multigrado Innovada* (EMI) in all rural multi-grade schools by 2011.
   - Ensure that all students in rural areas have access to the second cycle of the basic level and that all rural schools benefit from the multi-grade and/or grade-by-grade, year-by-year reforms.
   - Engage the parents of every child in the education of their children. Provide targeted adult education assistance in reading

comprehension and mathematics to parents to prepare them to support their children in school.

3. Implement reforms in teacher education and the teaching career. The goal should be to have a qualified teacher in every classroom, giving first priority to teachers at the basic level.

4. Reform the national testing and assessment instruments and processes, giving first priority to:

   - An assessment to be used for diagnosis and improvement for the first cycle of basic education focused on measuring the extent to which students have mastered the curriculum in key areas of reading comprehension and mathematics.

   - A national system for assessing changes in student performance in key areas (*e.g.* reading comprehension and mathematics) that would permit the monitoring of student performance, opportunities to learn, and organisational characteristics of schools.

5. Implement civil service reforms to establish a cadre of strong professional education leaders and directors at every level of the system (school, district, region and the SEE) with employment status that is determined by competition based on professional merit, not political affiliation, and whose tenure is not affected by changes in political leadership.

6. Implement provisions of *Ley de Educación* 66-97 and current policy intentions to strengthen the leadership, governance and monitoring of the education system. Continue decentralisation and fundamental changes in the mission and functions of the SEE.

7. Initiate a fundamental redesign of the middle-level. Establish a goal of increasing student learning in core competencies required for further learning *and* entering the labour market at a living wage. Such a review should involve employers as well as representatives of tertiary education.

8. Focus on improving retention and student learning in the first two years of tertiary education. Ensure that all students who complete the first two years have mastered core competencies necessary for university-level study. Establish a subsystem of public community technical institutes *(Subsistema Público de Institutos Técnicos Communitarios)*.

9. Consolidate and strengthen the quality assessment system for higher education to inform the public about the best institutions and career opportunities and to provide clear criteria for resource allocation and the

authorisation for granting higher level degrees. Develop a nationwide system of course-programme (or career) assessment, based on the achievements of the graduating students.

10. Based on the *Foro Presidencial por la Excelencia de la Educación,* engage a broad spectrum of civil society in the Dominican Republic in education reform. Build public understanding of the need for fundamental change and establish a means to sustain reform over changes in political leadership over the next decade and beyond.

Bright, enthusiastic young children greeted the OECD team during many of our school visits. Dominican children are capable of reaching the highest levels of performance in the world *if* they have good teachers, supportive parents, and clean, safe and supporting learning environments. These conditions currently do not exist in many of the public schools of the Dominican Republic. The future of the country as a thriving democracy and a globally competitive economy hinges on whether it can fulfil its pledge to educate all its citizens.

Recent Publications

Melo de Cardona, Ligia Amada (2007). *National System of Accreditation of Teachers in Higher Education. Presidential Forum for Excellence in Education*.

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Reviews of National Policies for Education

Dominican Republic

Reforms of education, training and human resource development are integral parts of a market economy. The Dominican Republic has made progress in all these areas since reform began in the 1990s. The challenge for the State Secretariat for Education (SEE), the State Secretariat for Higher Education, Science and Technology (SEECyT) and the National Institute for Technical-Vocational Training (INFOTEP) has been to promote and support changes that meet the needs of both the new economy and society and the interests of all young people and adults, in the face of a shortage of financial and human resources.

This book gives a brief overview of regional issues and the history of education in the Dominican Republic and describes the development of education in the country over the past 15 years. It presents an analysis of the education system, identifying key directions for the reinforcement of the reforms in light of the challenges encountered by officials, communities, enterprises, educators, parents and students under very dynamic conditions. It concludes with a set of key recommendations concerning the structure of the system and its labour market relevance; access and equity; financing; governance and management; internationalisation; and research, development and innovation. This review will be very useful for both Dominican professionals and their international counterparts.

This review is part of the OECD's ongoing co-operation with non-member economies around the world.

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