International Qualifications Assessment Service (IQAS)

Alberta Employment and Immigration

INTERNATIONAL EDUCATION GUIDE

Republic of Colombia

Prepared by:
International Qualifications Assessment Service (IQAS)

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LIST OF ACRONYMS

ASCUN | Colombian Association of Universities (*Asociación Colombiana de Universidades*)

CAO | Certificate of Occupational Aptitude (*Certificado de Aptitud Ocupacional*)

CAP | Certificate of Professional Aptitude (*Certificado de Aptitud Profesional*)

C.C. | citizenship card (*cédula de ciudadanía*)

CERES | Regional Centres of Higher Education (*Centros Regionales de Educación Superior*)

CESU | National Council of Higher Education (*Consejo Nacional de Educación Superior*)

CNA | National Council of Accreditation (*Consejo Nacional de Acreditación*)

COLCIENCIAS | Colombian Institute for the Development of Science and Technology "Francisco José de Caldas" (*Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología "Francisco José de Caldas"*)

COLCULTURA | Colombian Institute of Culture (*Instituto Colombiano de Cultura*)

COLDEPORTES | Colombian Institute of Sport (*Instituto Colombiano de Deporte*)

CONACES | National Cross-Sector Commission for the Quality Assurance of Higher Education (*Comisión Nacional Intersectorial de Aseguramiento de la Calidad de la Educación Superior*)

ECAES | Examinations of Quality of Higher Education (*Exámenes de Calidad de la Educación Superior*)

H.S. | weekly hours (*horas semanales*)

ICETEX | Colombian Institute of Educational Credit and Technical Studies Abroad (*Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior*)

ICFES | Colombian Institute for the Promotion of Higher Education (*Instituto Colombiano para el Fomento de la Educación Superior*)

I.H. | hourly intensity (*intensidad horaria*)

I.H.S. | weekly hourly intensity (*intensidad horaria semanal*)

INEM | National Institute of Diversified Middle Education (*Instituto Nacional de Educación Media Diversificada*)

OML | Labour Market Observatory (*Observatorio del Mercado Laboral*)

SENA | National Apprenticeship Service (*Servicio Nacional de Aprendizaje*)

SNIES	National System of Information of Higher Education (*Sistema Nacional de Información de Educación Superior*)
T.I.	identity card (*tarjeta de identidad*)
ULA	units of academic work (*unidades de labor académico*)

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1. COUNTRY OVERVIEW

Land

The Republic of Colombia (*República de Colombia*), named in the honour of Christopher Columbus, is located in the northwestern corner of the South American continent. With an area of 1,141,748 km^2, it is presently the fourth largest Latin American nation in terms of territory and is nearly twice the size of Alberta. Colombia borders Venezuela and Brazil to the east, Peru and Ecuador to the south, and Panama to the north. It also has access to the Caribbean Sea and the Pacific Ocean and shares maritime boundaries with Jamaica, Haiti, the Dominican Republic, Honduras, Nicaragua, and Costa Rica. Colombia (UTC-5) is one hour ahead of Alberta during daylight savings time and two hours ahead during standard time.

Figure 1.1. Map of Colombia
(Source: http://www.worldatlas.com, 2008.)

Colombia's geography is characterized by a narrow strip of coastal lowlands; central highlands with three Andean cordilleras (*Cordillera Occidental*, *Cordillera Central*, and *Cordillera Oriental*); tropical rainforest in the South; and savannah-like plains (*llanos*), which cover more than half of the country's terrain, in the East. The climate tends to be cooler in the highlands and tropical along the coast and the eastern plains. Volcanic

eruptions, occasional earthquakes, and periodic droughts are among the main natural hazards that afflict the region.

Because of its topographic diversity, Colombia is rich in natural resources like petroleum, natural gas, coal, iron ore, nickel, gold, copper, emeralds, and hydropower. Furthermore, the tropical climate allows Colombia to cultivate a variety of agricultural products such as coffee, cut flowers, bananas, rice, tobacco, corn, sugarcane, cocoa beans, oilseed, vegetables, forest products, and shrimp. Many of these products are among Colombia's top exports.

People and Culture

Population

According to the 2005 national census of Colombia, the country's population was 42,888,592, with some estimates for the following year quoting a number as high as 46,300,000.[i] This makes Colombia the third most populous Latin American nation after Brazil and Mexico. The population, however, is distributed very unevenly throughout the territory. As of 2005, about 73% of Colombians lived in urban centers. Furthermore, the area encompassing the eastern lowlands, which cover approximately 54% of the country's total area, are inhabited by less than 3% of the population and have a population density of less than one person per square kilometer.[ii] The difficult socio-economic situation and civil unrest in Colombia have also caused many to emigrate abroad.

Ethnicity

The ethnic makeup of present-day Colombia reflects its rich heritage and is primarily a blend of three groups: the indigenous Amerindian populations, Spaniards and other European immigrants, and the descendants of black slaves imported from Africa during colonial times. *Mestizos* (individuals of mixed Amerindian and white ancestry) account for 58% of the total population, those classified as white for 20%, and *mulattos* (individuals of mixed African and white ancestry) for 14%. Among other racial minorities are *Afrocolombianos* or Colombians of African origin (4%), population with mixed Afro-Amerindian roots (3%), and indigenous Amerindian groups (1%).[iii] Throughout its history, Colombia has also received several waves of immigrants from Europe (Europeans other than the conquistadores, Jewish people, Romanies), the Middle East (Lebanese, Jordanians, Syrians), and Asia (Chinese, Japanese, Koreans).

Language

Colombia's official language is Spanish (*español* or *castellano*), but the dialect can vary greatly in different parts of the country. Indigenous languages of several ethnic groups are constitutionally recognized as official within their territory as well, and the law makes

bilingual education obligatory in regions with a linguistic tradition on their own. Currently, more than 60 indigenous and creole languages are spoken all over Colombia by various ethnic communities. Spanish, however, remains the dominant language and is also the only language used throughout all levels of the educational system. The literacy rate for adults (15+) in Colombia was reported as 92.8% in 2005, nearly 3% higher than the regional average.[iv]

Religion

Until the new constitution was adopted in 1991, Roman Catholicism was officially Colombia's state religion. Presently, about 90% of Colombians are Catholic and the Church is still deeply ingrained in the society. Most major religions and religious movements are also present in the country and account for the remaining part of the population.

History

Colombia has a rich past that continues to impact its present in many ways. Like most Latin American countries, Colombia used to be a Spanish colony and emerged as an independent nation after a series of wars in the 19th century. The fact that most Colombians today are of mixed European and Amerindian descent, speak Spanish, and profess Roman Catholicism is a direct result of the colonial legacy inherited not only by Colombia, but by most countries in the region. In recent history, Colombia again faced many issues typical for Latin America such as political instability, poverty, corruption, human rights abuses, and a low standard of living among the majority of its population. At the same time, the country's heritage also possesses features that are uniquely Colombian, and its people have struggled with challenges that are particular to their nation. The following brief summary outlines some of the important events in Colombia's history.

Pre-Columbian Period (prior to 1500s)

For centuries before the arrival of the first Europeans on the continent, the territory of present-day Colombia was home to numerous indigenous cultures that were quite distinct and often highly sophisticated with respect to religion, language, and socio-political organization. Towards the end of the pre-Columbian period, the dominant Amerindian groups in the region were the Chibcha (especially the Muisca and Tairona tribes), the Caribs, and the Arawak. In 1492, Christopher Columbus and his crew embarked on their first exploratory voyage from Spain and reached the present-day islands of Cuba and Hispaniola. This event initiated an era of exploration and eventual conquest of Latin America by Europeans.

Exploration and Conquest (1500s)

Around the year 1500, Rodrigo de Bastidas and other Spanish conquistadores set out to explore the Colombian coastline. The colonists gradually moved deeper inland, establishing numerous settlements and founding the current capital, Santa Fé de Bogotá, in 1538. The local indigenous tribes lacked political unity, a factor that facilitated the conquest of the region by the Spaniards. By the middle of the 16th century, the lands were officially part of the Viceroyalty of Peru that comprised all the South American territories belonging to the Spanish Crown.

Colonial Period (1600s – 1700s)

Soon after the conquest, an elaborate system of bureaucracy loyal to the Spanish monarchs and strongly influenced by the Roman Catholic Church was implemented in the colonies. The economy of the New World was based primarily on mining (of gold, silver, and other ores and minerals) and agriculture. To provide the necessary labour, the indigenous population was forced to work for the former conquistadores who had now become the new landowners. During this period, the Amerindian population of the area declined rapidly due to the initial armed resistance, the introduction of European diseases, and finally the harsh working conditions they were forced to endure. To offset the declining supply of indigenous labour, the Spanish colonists soon began to import large numbers of slaves from Africa. Gradually, racial mixing between Europeans, Amerindians, and Africans contributed to the rise of entirely new racial groups, such as *mestizos* and *mulattos*, and eventually led to a profound shift in the ethnic makeup of the colonies. Politically, the influence of the Spanish Crown over the New World continued to decline over the years. In 1717, the Viceroyalty of New Granada (which included present-day Colombia, Venezuela, Ecuador, and later on Panama) was formed as a new administrative region, with the *criollos* (the descendants of the European colonialists born in the New World, also referred to as creoles) playing an increasingly important role on the socio-political scene.

Independence (1800s)

Prompted by political unrest and dynastic politics in Spain, insurgent movements calling for greater autonomy began to gain strength throughout the Spanish colonies. Most notably, Símon Bolívar emerged as a leading figure in the early 1800s, advocating complete independence of Latin America. Amid political turmoil, Colombia declared its independence from the Spanish Crown on July 20th, 1810. Still, it was not until August 7th, 1819 that Bolívar's troops decisively defeated the Spanish forces and the formation of an independent Greater Colombia (*Gran Colombia*), which included the same member states as the former Viceroyalty of New Granada, was proclaimed. Francisco de Paula Santander was another important figure in the Colombian independence movement and held important political offices in the new republic. In 1830, however, Venezuela and Ecuador seceded from Greater Colombia. The remaining territory of the former federation

experienced further transformations and official name changes in subsequent years.[v] In 1886, the current Republic of Colombia was established, with Panama remaining part of its territory. Overall, the immediate post-independence period was marked by slow recovery from the wars and economic adaptation to capitalism and new international markets. Internal divisions between the opposing Conservative and Liberal parties continued to grow and often erupted in violence.

Modern Era (1900s)

Colombia entered the new century in a state of civil war caused by the intense Conservative-Liberal rivalry. The War of the Thousand Days (1899 – 1902) ultimately ended with political intervention of the United States and the establishment of Panama as a separate nation in 1903. Another civil war, known as The Violence (*La Violencia*) and frequently viewed as the starting point for the tensions and violence that affect Colombia until today, followed in 1948. It left behind an estimated 250,000 to 300,000 casualties and ended only when the Conservatives and the Liberals agreed to form a single party, the National Front (*Frente Nacional*), in 1958. This development, however, did not erase socio-economic inequalities or solve all political woes. As a result, in the 1960s and early 1970s, Colombia witnessed the emergence of several leftist guerrilla movements. The largest and most powerful of them to this day have been the FARC (*Fuerzas Armadas Revolucionarias de Colombia* – Colombian Revolutionary Armed Forces).[vi] In response to the left-wing insurgents, members of the upper classes, armed forces, and government elites supported the formation of illegal and equally violent right-wing paramilitary groups.[vii] In 1974, the system of multiple parties and free elections was restored, but the political situation was further complicated in the following years by the rise of illegal drug trade. Powerful drug cartels provided financing to all parties involved in the conflict, including the government, and exerted significant socio-economic influence in the country during the 1980s and 1990s.

Present Times

Political instability and lack of economic opportunities, especially in the rural areas, have led to internal displacement, increased migration to urban centers, and rising poverty levels. Although the security situation has improved under the current government, lasting peace and eradication of the drug trade are two major challenges still facing Colombia today. Official peace talks between the government and the insurgent groups go as far back as the end of the 1990s, but they have been broken off numerous times by both sides. Progress has been made in 2002 when the right-wing paramilitary groups agreed to a ceasefire and disarmament; however, the conflict with left-wing insurgents remains unresolved. The drug trade is also far from being eradicated despite significant financial aid from the United States.

Administration

<u>Political Administration</u>

As the country's official name states, Colombia is a republic. Its current constitution was adopted in 1991, replacing the original one of 1886, and it has been amended numerous times since. Public powers in Colombia are divided among the executive, legislative, and judicial branches of government. The executive branch is headed by the president and his cabinet of ministers. Presidential elections by popular vote take place every four years, and the president acts as both chief of state and head of government. The legislative branch is organized around the principle of a bicameral parliament referred to as the Congress (*Congreso*). Legislative powers are hence shared between the House of Representatives (*Cámara de Representantes*), which has 166 members, and the Senate (*Senado*), which has 102 members. The representatives and the senators are also elected by universal suffrage to serve four-year terms. The judicial branch consists of four main organizations, each with different functions: the Supreme Court of Justice (*Corte Suprema de Justicia*), the Constitutional Court (*Corte Constitucional*), the State Council (*Consejo de Estado*), and the Superior Council of the Judiciary (*Consejo Superior de la Judicatura*).

<u>National Symbols</u>

Colombia's national flag consists of three horizontal bands. The top band is yellow and is twice as wide as the second (blue) and third (red) bands. The yellow band represents first of all the country's mineral and agricultural resources such as gold and fields of corn and wheat, and secondly the sun that illuminates us all. The blue band symbolizes the oceans, seas, and rivers as well as the clear blue skies over the Colombian territory. The red band stands for patriotic ideals and the blood spilled by those who fought for the country's independence. The flag greatly resembles those of Ecuador and Venezuela since all three have their origin in the flag of the former federation of Greater Colombia.

Figure 1.2. Colombia's flag and coat of arms

Colombia's coat of arms similarly refers to the country's history, ideals, and resources. At its centre is a shield divided into three horizontal parts. The topmost section contains a pomegranate, a symbol of the former Viceroyalty of New Granada, flanked by two cornucopias (i.e. horns of plenty). The first horn represents Colombia's mineral resources and is filled with gold coins, while the other overflows with tropical fruit and stands for the fertility and agricultural wealth of Colombian soil. The middle section of the shield depicts a Phrygian cap on a spear, symbols of liberty and the quest for freedom. The lowermost portion of the shield points to Colombia's maritime history and privileged geographic location. It depicts two ships with open sails on either side of the Isthmus of Panama. The ships symbolize commerce with the rest of the world and a prosperous economy. The national flag is draped on each side of the shield, and an Andean condor, with its wings spread out and a crown of laurel leaves, is perched on top of it. The condor is yet another symbol of freedom. In between the bird and the shield, there is also a flowing golden ribbon with the national motto, *Libertad y Orden* (Liberty and Order), inscribed on it.

Territorial Administration

For administration purposes, Colombia is divided into 32 departments (*departamentos*) and one capital district (*distrito capital*). Each department is headed by a governor (*gobernador*) and a Department Assembly (*Asamblea Departamental*). The departments are formed by groups of municipalities (*municipios*), each administered by a mayor (*alcalde*) and a municipal council (*concejo municipal*).

Figure 1.3. Departments of Colombia
(Source: Wikipedia, 2007.)
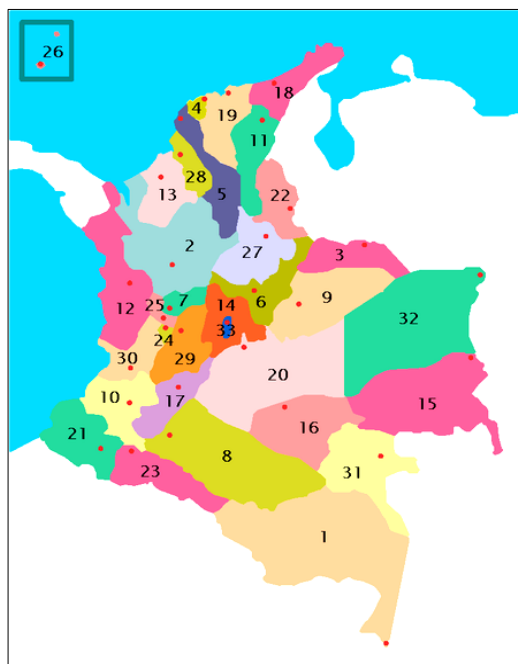
1 Amazonas	18 La Guajira
2 Antioquia	19 Magdalena
3 Arauca	20 Meta
4 Atlántico	21 Nariño
5 Bolívar	22 Norte de Santander
6 Boyacá	23 Putumayo
7 Caldas	24 Quindío
8 Caquetá	25 Risaralda
9 Casanare	26 San Andrés and Providencia
10 Cauca	27 Santander
11 Cesar	28 Sucre
12 Chocó	29 Tolima
13 Córdoba	30 Valle del Cauca
14 Cundinamarca	31 Vaupes
15 Guainía	32 Vichada
16 Guaviare	33 Bogotá, D.C. (capital district)
17 Huila	

The city of Bogotá is Colombia's national capital and is hence referred to as the capital district. The city also serves as the capital of Cundinamarca, the department surrounding it. It is common to see the city's full name, Santa Fé (or Santafé) de Bogotá, used on official documents. Located in the eastern cordillera of the Andes at an elevation of approximately 2,640 meters above the sea level, Bogotá's population reached nearly 7 million in 2005. Colombia's other major cities are Medellín, Cali, Barranquilla, and Cartagena.

<div align="center">Economy</div>

Colombia is a country with great potential and numerous natural resources. Its currency is the Colombian peso (informally abbreviated as $ or Col$), and throughout the 20th century, its economy has been relatively healthy and stable as compared to the rest of the region. In 2005, agriculture accounted for 12.5% of Colombia's gross domestic product (GDP), industry for 34.2%, and the services sector for 53.3%. The country's gross national income (GNI) totaled US$ 104.5 billion, translating to an average annual income of US$ 2,290 per capita.[viii] The main factor preventing Colombia from fully exploiting its potential for economic growth has been its fragile political situation. The current administration continues its efforts to reduce the deficit, lower the unemployment rate, and foster a more favourable economic environment.

Colombia belongs to several regional economic communities and has signed a free-trade agreement with the United States in 2006. Its trade connection with Canada has strengthened over the years as well. For example, in 2005 Canadian exports to Colombia were valued at CAN$ 446 million and imports from Colombia at nearly CAN$ 583 million, amounting to CAN$1,029 million in two-way trade between the countries.[ix] Among the main products Canada imports from Colombia are mineral fuels, spices, coffee and tea, fruit, live trees and plants, as well as iron and steel products. Major Canadian exports to Colombia include vehicles, paper and newsprint, cereals, vegetables, and machinery. Furthermore, Canada has recently reiterated its support for Colombia's efforts to improve peace and stability. In 2004-2005, the Canadian International Development Agency (CIDA) provided nearly CAN$ 14 million in official development aid to Colombia, with additional increases to the funding already announced. Canadian assistance to Colombia targets particularly child protection, education, support for internally displaced people, rehabilitation of landmine victims, and professional labour administration.

<div align="center">Colombian Residents in Canada</div>

Since 2001, Colombia has also been the number one source country of individuals from the Central and South American region who become permanent residents of Canada. In 2005 alone, 6,031 Colombian nationals became permanent residents of Canada, with the number falling slightly to 5,813 for the following year. Apart from the permanent residents, in 2006 Canada received over 2,000 temporary residents of Colombian origin, including 404

foreign students, 952 individuals accepted for humanitarian reasons, and 1,049 adult (18+) refugee claimants.[x]

2. HISTORICAL EDUCATIONAL OVERVIEW

Introduction

At any given point in time, there are numerous factors that determine a nation's educational system. They include the country's history, cultural values, dominant religion, socio-political situation, prevalent philosophical movements, economic demands, and geographical location. The evolution of Colombia's system of education closely reflects the country's rich and often turbulent heritage. The complex relationship between the Conservative and Liberal political forces and the religious and secular influences in Colombian society have played a particularly important role in shaping its educational history. On the whole, however, the development of Colombia's system of education has been marked by constant reform and an ongoing search for improvement demonstrated by the countless laws and initiatives that have been part of its evolution since colonial times.

Colonial Period (16th – 18th century)

In pre-Columbian times, preservation and dissemination of knowledge among the tribes that inhabited Colombia's present-day territory was not organized into a formal system of education. Upon the arrival of the first Spanish conquistadores in the New World, members of religious orders like the Jesuits, the Franciscans, and the Dominicans promptly assumed the responsibility of educating the indigenous population in Christian doctrine and the basics of Spanish language and customs. Since there existed little separation between Church and state, religious authorities were involved in matters of colonial administration from the very beginning and remained the principal influence in the sphere of education for centuries to come. Consequently, colonial education emphasized Catholic morals, obedience, austerity, adherence to Spanish customs, loyalty to the Crown, and respect for authority.

Education in the colonies was strictly divided along racial and gender lines. In other words, various types of schools imparted different kinds of education to different ethnic groups. Indigenous children were only allowed to attend the free elementary schools run by religious orders where they studied religion and the basics of writing and arithmetic. African slaves were prohibited from receiving any type of schooling whatsoever. Girls were largely excluded from formal education as well. The only group that had full access and the most choices with respect to education were the young men from the wealthier families of Spanish descent. Many children were also taught at home either by their parents or by a more knowledgeable neighbor who acted as a private tutor. However, home instruction again benefited mostly the upper classes since they were able to hire professional tutors, frequently imported from Europe, or send their children to travel and be educated abroad.

The first institutions of higher education on Colombian territory were established throughout the 16th and 17th centuries. For instance, the [Universidad Santo Tomás](#) was

founded in 1580 by the Dominicans. Similarly, the Jesuits created the Universidad Javeriana in 1623 and the Colegio Mayor de Nuestra Señora del Rosario in 1645. All of these institutions were established in Bogotá and still exist today. The universities were designed to train the Spanish and creole elite primarily in professions such as law and the priesthood. The curricula were purely theoretical and were based on the concepts of trivium and quadrivium. Some of the subjects taught included jurisprudence, logic, grammar, theology, and oratory.

Overall, education during colonial times lacked any kind of systematic organization and developed in a rather spontaneous way without much strategic planning. Formal supervision of all educational affairs in the colonies was exercised by the Secretariat of the Exterior (*Secretaría del Exterior*), but individual schools were founded and maintained by religious orders, private citizens, or town councils. The quality of education offered varied greatly among the different institutions, and most of them charged a fee, thus making education a privilege of a select minority. Other problems associated with the lack of planning in education included the following: increasingly poor access to schooling as the population of the colonies grew but education remained centred in the main cities; periodic shortages of education resources resulting from unstable sources of funding; and an overall low quality of teaching in the majority of schools due to the absence of a formal teacher training process.

Throughout the 18th century, the authority of the Church in the sphere of education was frequently challenged by the country's leading intellectuals. They were influenced by secular ideas of European Enlightenment and the concepts of positivism and empirical scientific investigation. Among the most vocal reformers at the time were magistrate Francisco Antonio de Moreno y Escandón and archbishop Antonio Caballero y Góngora. Moreno y Escandón viewed education as a responsibility of the state and even suggested the creation of the first public university. He proposed the inclusion of new subjects in the traditional curricula and was a strong proponent of experimentation and practical application of scientific knowledge. Caballero y Góngora was similarly in favour of modernizing the school curriculum. He also supported the research of the Royal Botanical Expedition and reform-minded scientists like José Celestino Mutis. Even though many of these proposed reforms had to be abandoned due to clerical opposition, they demonstrate a gradual shift away from traditional educational philosophy and the growing influence of secular ideas. The opening of the Royal Public Library in Bogotá in 1777 and the activation of the Royal Printing Press in 1782 further facilitated the spread of knowledge and new ideas.

Independence Period (19th century)

The first half of the 19th century was marked by the Wars of Independence and the proclamation of Greater Colombia. The main objective of the government during the initial years of the republic (approx. 1820-1840) was to establish a centralized state geared towards strengthening public education, national industry, and democratic institutions. Education was meant to consolidate the new nation and instill in students patriotism, civic

values, social awareness, and overall respect for the ideals of liberty, equality, and justice that the republic was founded upon. In terms of administration, the Directorate General of Public Instruction (*Dirección General de Instrucción Pública*), established soon after independence, took charge of educational affairs in the new federation. For the first time, a division within state administration was created specifically for the purpose of supervising and unifying Colombia's system of education.

General Francisco de Paula Santander, who served as vice president of Greater Colombia (1821-1828) and then as president of the Republic of New Granada (1832-1837), played a major role in the educational reforms of the time. Strongly in favour of secularization, Santander's main goals were to create a structured state-controlled system of education and to increase the number of public schools (*colegios* and *casas de educación* offering elementary and secondary education) in all major cities and towns. As a result of his policies, by 1836, there existed more than 1,000 public and private elementary schools, serving a student population of 26,070.[xi] Education was structured into the basic level (elementary), followed by three years of study at a *colegio* (lower secondary), three more years of study at the level of *bachillerato* (upper secondary), five to six more years of study in a professional career, and two more years of study to obtain a doctorate. The academic titles awarded by universities were *bachiller* (marking the completion of upper secondary studies), *licenciado*, and *doctor*.

The founding of new universities was strongly encouraged during Santander's time as well. Striving to increase access to university education by making it free, the government founded the National University of the United States of Colombia (*Universidad Nacional de los Estados Unidos de Colombia*) in 1867. It was comprised of the faculties of law, medicine, philosophy, arts, engineering, and natural sciences. Among numerous other reforms, Santander's government also supervised the establishment of Colombia's first normal schools (i.e. teachers' colleges), marking the recognition of teaching as a profession and ensuring proper training for the teaching staff.

This period of liberal reforms and increased secularization of education ended in the late 1870s when political differences between the Liberals and the Conservatives led to violent confrontations. Ultimately, the Conservatives triumphed and a new constitution was drafted in 1886. The document emphasized political centralization and administrative decentralization. In the field of education, it meant that departmental and municipal authorities now had a greater say in educational administration. Publicly funded elementary education was free but non-compulsory, and religion assumed a principal role within the educational system once again. All teaching activity at public institutions was to be conducted in strict adherence to the Catholic doctrine, with the archbishops responsible for supervision of teachers and choice of textbooks. In 1888, religious instruction in schools was made obligatory for all.

Modern Era (20th century)

1900s – 1940s

The early 1900s in Colombia were marked by the War of the Thousand Days, economic hardship, territorial loss of Panama, increased industrialization and urbanization, growing production and exports of coffee and other commodities, and the emergence of new social movements. Many of these changes resulted in a rising demand for a skilled workforce. Hence, elementary and secondary education became a priority, with secondary education further subdivided into a technical and a classical stream. As for higher education, in 1920, Colombia's population exceeded 8 million inhabitants, and the country had eight public and three private universities. The instruction university students received was isolated from Colombian realities and largely based on European academic curricula that did not incorporate any local elements or research. Universities also produced far too many medical doctors and lawyers, while failing to educate sufficient numbers of engineers, scientists, and other professionals. The focus of university education began to shift towards technical education only gradually. On the administrative level, in 1928 the ministry in charge of educational affairs adopted its current name and became known as the Ministry of National Education (*Ministerio de Educación Nacional*).

The period of 1930-1946 is often referred to as the years of the Liberal Republic (*La República Liberal*) because of the return of Liberal rule that fostered an atmosphere of intellectual open-mindedness and reform. Educational legislation of the 1930s sought greater secularization and increased state control of the Colombian system of education. With the aim of promoting social integration, reforms were passed that allowed women to attend institutions of higher education, eliminated gender segregation in elementary and secondary schools, and abolished any type of discrimination based on race, religion, or origin in all schools. The dominant teaching methodologies at the time favoured observation, experimentation, and a much more active role of the students.

At the university level, the reforms of the 1930s focused primarily on the National University, which was supposed to serve as an example to other institutions of higher learning. New legislation established academic and administrative autonomy of the university, reorganized and regrouped its faculties and institutes, streamlined enrollment, and revised program curricula. Given that women were now allowed to attend universities as well, the demand for higher education institutions increased, leading to the foundation of additional universities throughout Colombia. Yet the National University remained the centre of higher education. In 1935 it accounted for 43% of all students officially enrolled in Colombian universities, and by 1943 the number rose to 70%.[xii] Despite political instability, overall attendance of higher education institutions has shown significant growth from the 1940s on. Between 1945 and 1954, for example, university enrollment increased by 63%.[xiii]

1950s – 1980s

The liberal reforms met with strong opposition from supporters of the Conservative party. As soon as the Conservatives regained power in 1946, many of the laws and initiatives were reversed and Catholic religion regained its privileged position in education. Political turmoil between the country's two main parties erupted once again, leading to a civil war that lasted for nearly ten years (1948-1957). The unrest prompted political state intervention in university education and the abrogation of the autonomy previously granted to higher education institutions, resulting in numerous student protests. Once order was restored, a new decree re-instated these freedoms and defined the university as an apolitical and autonomous legal entity.

The late 1950s and the following two decades were marked by a focus on modernization and development. At the time, development was equated with economic growth. Rapid industrialization, neoliberalism, and modern applications of science and technology were all strongly advocated. Industrial models of production were soon converted into instructional design, and education came to be viewed as yet another production process. Teaching methodologies, based on theories of educational technology and rooted in cognitive and behavioural psychology, gained great popularity. Little value was placed on the teaching of humanities and ethics since the emphasis was not on training socially conscious citizens, as in the 19th century, but productive individuals capable of sustaining their country's economic growth.

In reality, statistics from 1954 indicated that less than half of the children old enough to be enrolled in elementary education attended school, and the numbers of teaching staff and educational institutions were far from sufficient. Problems existed within the school system too and manifested themselves in high drop-out and repetition rates, affecting children in rural areas the most. Consequently, expanded access to education and improvement of the quality of instruction became government priorities in the 1950s and 1960s.

Since the main objective of the government was to address the problems at the elementary level first, secondary education was not viewed as a priority. There was also much debate and disagreement surrounding the exact definition and purpose of this level. Some authorities maintained that secondary education basically represented a transitional step towards the successful incorporation of students into the workforce. Hence, they insisted on a vocationally-oriented secondary school education (*bachillerato diversificado* or *bachillerato técnico*). Others favoured a more humanistic view of secondary studies and considered them to be an essential part of basic education to be completed by all students before pursuing more specialized training. They advocated secondary education that imparted general knowledge (*bachillerato clásico* or *bachillerato académico*). In the 1960s, institutions with a technical orientation received the most support, but later studies showed that the *bachillerato técnico* never became very popular. It also proved more costly to implement and was found to prepare students for professional careers no better than the *bachillerato académico*. Overall, the prolonged lack of state interest in this level of

education meant that the foundation of new secondary schools and other improvements in secondary education were left almost entirely to private institutions.

On a more general level, throughout the 1950s and 1960s the state re-asserted federal control of education, promoted secularization, and continued its attempts to eliminate gender segregation and any discrimination based on socio-economic status from schools. The period also marked the start of official educational planning and the proclamation of a Five-Year Education Plan – the first of its kind not only in the history of Colombia but also of South America. The reforms of the following decades focused on further raising the quality of education, bringing more uniformity to the whole system, and increasing access to education in the more remote regions of Colombia. Despite these conscious and targeted efforts to improve the state of education in Colombia, some of the objectives remained only partially achieved even by the 1980s.

Figure 2.1. Growth of enrollment in education in comparison with growth of the total population of Colombia(1980-2000) [xiv]
(Source: UN Statistics Division, 2007.)

Population groups	1980	1990	2000
Total population	28,355,626	34,874,523	41,682,594
Students enrolled in the 1st level of education (comparable to elementary education)	4,168,200	4,246,658	5,221,018
Students enrolled in the 2nd level of education (comparable to secondary education)	1,733,192	not available	3,568,889
Students enrolled in the 3rd level of education (comparable to higher/postsecondary education)	271,630	487,448	934,085

With respect to higher education, from the late 1950s onwards, universities became crucial to Colombia's industrialization process and began to offer a growing number of technological and professional programs. The next two decades were marked by privatization as well as modernization and diversification of university curricula. For instance, by 1970, 45% of all university students attended private institutions and the total number of university programs reached 63, as compared with 32 in the 1950s.[xv] Throughout the 1980s, the growing trend towards a critical examination of higher education resulted in legislation that improved policy coordination, set the minimum requirements for institutions of higher learning, initiated periodic evaluations of their academic and administrative performance, and recognized research as an integral part of higher education. The number of higher education institutions increased dramatically from 29 in 1960 to 193 in 1980.[xvi]

The decade of the 1990s brought about major changes to the country's political institutions and legislation. Colombia's new constitution, enacted on July 4th, 1991, gave far more attention to education than the constitution of 1886. Education was defined as a person's right and a public service with a social function. The constitution established that education was the joint responsibility of the state, society, and family, but it was the state – represented by the Ministry of National Education – that exercised the ultimate authority in all matters pertaining to formal instruction. School attendance was made obligatory between the ages of 5 and 15, encompassing at least one year of preschool and nine years of basic (elementary and lower secondary) education. The new legislation abolished obligatory religious instruction in all public schools and formally recognized the right of members of ethnic groups to receive education that promoted the development of their cultural identity. The eradication of illiteracy and education for students with special needs (including adults, rural populations, and exceptionally gifted individuals) were mentioned as priorities of the state. The constitution also reaffirmed the autonomy of universities, and the state pledged to strengthen its commitment to scientific research and to facilitate the financial aspect of access to higher education for individuals of all socio-economic backgrounds.

Two additional laws of great importance to Colombia's educational system were passed shortly thereafter. Law 115, or the General Law of Education (*Ley General de Educación*), was enacted in 1994 and gave a new structure to Colombia's educational system. Law 30, or the Law of Higher Education (*Ley de Educación Superior*), was passed in 1992 and established the legislative framework for higher education.

Present Times (21st century)

As Figure 2.2 illustrates, over the last four decades, Colombia has made significant progress in the delivery of education on all levels.

Figure 2.2. Development of gross access to education in Colombia (1960-2004)*
(Source: Ministerio de Educación Nacional "El Desarrollo", 2004:16.)
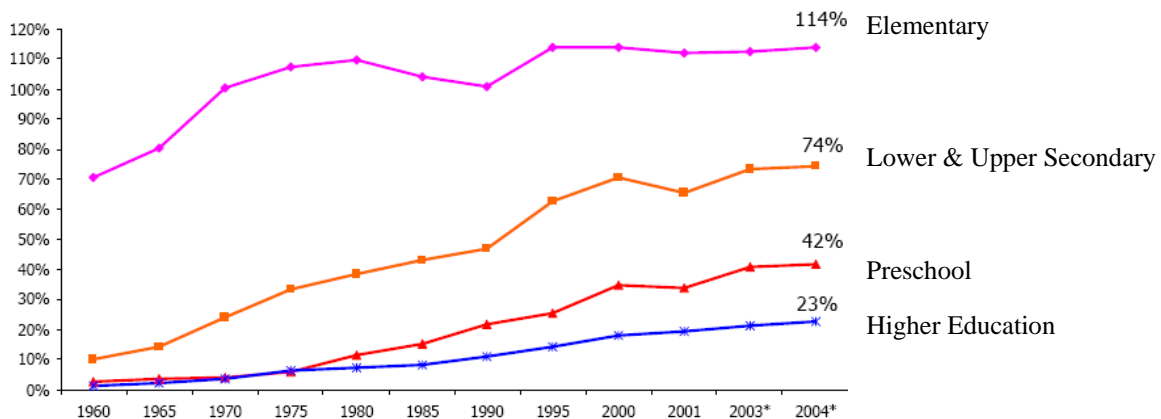
23

Nevertheless, numerous challenges persist. In 2002, the average Colombian over the age of 15 had 7.5 years of education, a number lower than in most countries in the region. National statistics often conceal regional differences within Colombia, particularly the large gap between the country's urban and rural areas. In comparison with their urban counterparts, rural students still perform worse at school, remain in the school system for fewer years, and receive instruction of poorer quality. The percentages of children who are not enrolled in educational institutions at all are high and serve as another example of the disparities between Colombia's urban centres and the countryside. National, regional, and international tests measuring students' performance in different subject areas also indicate serious deficiencies in the quality of elementary and secondary education offered by Colombian schools, especially at public institutions.

Figure 2.3. Percentage of school-aged population not enrolled in the educational system (2001)
(Source: Ministerio de Educación Nacional "El Desarrollo", 2004:19.)

Level	Preschool (5-6 years)	Elementary (7-11 years)	Lower Secondary (12-15 years)	Upper Secondary (16-17 years)	Total
Urban	13.6	4.2	10.4	34.6	**12.1**
Rural	33.0	9.9	28.8	56.5	**25.4**
Total	**19.6**	**5.9**	**16.0**	**40.7**	**16.1**

Taking these realities into account, the underlying principles in educational policy planning in the 21st century have revolved around increased social inclusion and universal access to quality education, providing students with solid moral values and skills for life, revitalizing the central role of teaching staff, and promoting administrative efficiency. Appendix A outlines the main topics addressed in the national education plans.

To summarize, following the reforms of the late 20th century, education in Colombia once again came to be perceived in more integral terms and recognized as the foundation of human, social, political, and cultural development of the nation. Current educational planning increasingly reflects the modern demands of our times. However, even in the 21st century, the old issues of access to education and the quality of instruction remain among the top challenges that Colombia's system of education is facing.

3. SCHOOL EDUCATION

Overview

Types of Education

The General Law of Education ([Law 115](#)) of 1994 – complemented by numerous decrees, resolutions, and directives – governs nearly all aspects of Colombia's educational system. Overall, all types of education in Colombia fall into one of three categories.

1. Formal education (*educación formal*), which constitutes the core of the educational system, refers to conventional school education imparted at recognized educational establishments. Courses are taught in a progressive sequence and instruction is organized in a system of levels, cycles, and grades. Upon completion of a level, students receive an official diploma (*diploma*) awarding an academic title (*título académico*). Formal education is subdivided into five levels:

   – preschool (*preescolar*),
   – elementary (*básica primaria*),
   – lower secondary (*básica secundaria*),
   – upper secondary (*media*), and
   – higher education (*educación superior*).

2. Non-formal education (*educación no formal*), renamed to education for employment and human development (*educación para el trabajo y el desarrollo humano*) in 2006, functions as a complement to formal education. It does not lead to academic titles and is not structured into levels, cycles, or grades. Its main objective is to provide apprenticeships and practically-oriented training leading to certificates and to allow students to update their skills and knowledge. Non-formal education is promoted primarily by the National Apprenticeship Service (*Servicio Nacional de Aprendizaje*) or SENA.

3. Informal education (*educación informal*) is defined as all knowledge acquired freely and spontaneously from individuals, institutions, the media, cultural traditions and customs, social norms, and other non-structured social behaviours.

**Figure 3.1. Basic structure of Colombia's formal education system
with the compulsory stages marked in blue (1991 – present)**

YEARS OF STUDY	AGE RANGE	GRADE	LEVEL OF EDUCATION
12	16-17	11	**Upper secondary education**
11	15-16	10	(*Educación media*)
10	14-15	9	**Lower secondary education**
9	13-14	8	(*Educación básica secundaria*)
8	12-13	7	
7	11-12	6	
6	10-11	5	**Elementary education**
5	9-10	4	(*Educación básica primaria*)
4	8-9	3	
3	7-8	2	
2	6-7	1	
1	5-6	Transition (*Transición*)	**Preschool education – obligatory** (*Educación preescolar obligatoria*)
	4-5	Kindergarten (*Jardín*)	**Preschool education – optional**
	3-4	Pre-Kindergarten (*Pre-Jardín*)	(*Educación preescolar opcional*)

As of 1991, compulsory schooling for all Colombian children begins at the age of 5 and encompasses a total of 10 years, consisting of one year of preschool education and nine years of basic (elementary and lower secondary) education. Prior to 1991, only the five years of elementary education were obligatory.

School Calendar

Colombian students receive 40 weeks of instruction in the course of a school year, which is further subdivided into two semesters of equal length. In addition to statutory holidays and brief school-scheduled vacation periods, students have approximately four weeks of vacation after each semester of study and one week of holidays during Easter time. Because climatic conditions vary greatly in different parts of Colombia, there are two academic calendars in effect:

– Calendar A – applicable to most of the country; the academic year starts at the beginning of February and ends in November or December.
– Calendar B – followed only by the departments of Cauca, Nariño, Putumayo, and Valle del Cauca; the academic year starts at the beginning of September and ends in June.

If a particular school wishes to follow a calendar other than the one prescribed for its locality, exceptions can be approved by the Ministry of National Education.

Students attend classes Monday through Friday. The average school day generally lasts from 7 or 8 a.m. until 3 or 4 p.m. The exact duration of lessons and breaks is determined

by individual schools. To accommodate large numbers of students, some educational institutions offer the same classes in the mornings and in the afternoons.

Types of Schools

Schools in Colombia can be either public (*oficiales/estatales/públicas*) or private (*no oficiales/privadas*). Both types of establishments must adhere to the regulations set by the Ministry of National Education. Attendance at state-run schools is free of charge since they are financed exclusively by the state. Private establishments are known for offering a better quality of education, but their tuition fees can reach an amount equivalent to hundreds of Canadian dollars per month. The majority of these schools is managed by various religious orders of the Roman Catholic Church. There are several international schools operating in Bogotá and other major cities too. Most private schools offer a limited number of scholarships to financially disadvantaged students who excel in their studies. Subsidies through public benefit funds are also available to families in need of financial assistance.

Figure 3.2. Number of public and private schools offering elementary, lower secondary, and upper secondary education in Colombia (2005)
(Source: Ministerio de Educación Nacional, "Estadísticas del Sector.")

	Number of establishments	Percentage of all establishments	Number of students enrolled	Percentage of all students enrolled
Public schools	15,723	59.3%	8,310,165	77.0%
Private schools	10,812	40.7%	2,475,304	23.0%
Total	**26,535**	**100%**	**10,785,469**	**100%**

Language of Instruction

In most Colombian schools, Spanish is the sole language of instruction. Indigenous groups have the right to receive bilingual education in Spanish and in their mother tongue within the territories they have traditionally inhabited. International schools also offer bilingual education and incorporate elements from foreign curricula into the Colombian programs.

Special Types of Schools and Programs

Aside from the different types of schools, there are special provisions in place for the delivery of education to the following population groups: disabled or exceptionally gifted students, adults, ethnic groups (primarily indigenous Amerindian and Afrocolombian communities), rural populations, and those in need of social rehabilitation.

- Adult education (*educación de adultos* or *educación para adultos*) is offered by private and public institutions, and classes are generally taught on a part-time basis in the evenings and during the weekends. The various programs available to adults

> focus on literacy skills, formal education, and other kinds of non-formal and informal training.
> − Education for indigenous ethnic populations (*etnoeducación*) is not only delivered bilingually, but it also incorporates the customs, worldviews, beliefs, and forms of social organization particular to these groups.
> − Alternative teaching models, such as the *Escuela Nueva* (New School) approach, have been developed and implemented for rural populations as well.
> − Yet another mode of education that has become increasingly popular with the spread of modern information and communication technologies is distance learning (*educación a distancia*). Currently, distance education programs exist at all educational levels, and the titles awarded upon the completion of such programs have the same validity as those awarded by regular institutions.

Licensing and Quality Assurance

In order to be recognized as an educational institution (*institución educativa*), a school must offer as a minimum all the levels of obligatory education. If it does not fulfill this requirement, it is classified as an educational centre (*centro educativo*). All schools must be licensed to operate or be officially recognized by the departmental, district, or regional Secretariat of Education (*Secretaría de Educación*). The licensing is dependent on the school having sufficient physical and administrative infrastructure, appropriately trained teaching personnel, and other necessary educational resources. The school must also develop and implement an institutional project of education (*proyecto educativo institucional*), a document outlining virtually every aspect of school life and administrative organization.

In the section of its website titled Educational Establishments (*Establecimientos Educativos*), the Ministry of National Education publishes a listing of all licensed schools. This online database can be searched according to numerous criteria such as the geographical location of the school, the types of education it offers, the tuition fees it charges, and the ranking the institution has achieved on national examinations.

Apart from obtaining a license to operate, there is no official process of quality-based accreditation for Colombian schools. However, the Ministry of National Education closely monitors the quality of instruction through the SABER Tests (*Pruebas SABER*) and the State Examinations for Admission to Higher Education (*Exámenes de Estado para Ingreso a la Educación Superior*). The SABER Tests have been administered nationwide since 1991 to students enrolled in grades 5 and 9. The examinations are designed to measure basic skills in the areas of language, mathematics, sciences, and civic competencies. The State Examinations for Admission to Higher Education have been administered by the Colombian Institute for the Promotion of Higher Education (*Instituto Colombiano para el Fomento de la Educación Superior* or *ICFES*) since 1968 to students who completed upper secondary education and are planning to enter an institution of higher education. Schools are classified according to the performance of their students on these examinations. The

ranking is made available to the public through publications of the Ministry of National Education.

Many schools also seek voluntary certification from independent quality assurance organizations. For example, the Colombian Institute for Technical Norms and Certification (*Instituto Colombiano de Normas Técnicas y Certificación* or *ICONTEC*), has awarded ISO 9001:2000 certificates to schools as recognition of the high quality of program design and management.

Administration

All levels of public and private education in Colombia are subject to the administrative authority of the Ministry of National Education (*Ministerio de Educación Nacional*). Other territorial authorities at the level of the departments, districts, and municipalities, supervise the implementation of policies set by the ministry and share the responsibilities for financing, administration, and proper delivery of educational services within their jurisdictions. For a detailed breakdown of administrative responsibilities, please refer to Appendix B.

Preschool Education (age 3-6 years)

Preschool education in Colombia consists of three stages:
- pre-kindergarten (*pre-jardín/ pre-kindergarten/ pre-kinder*),
- kindergarten (*jardín/ kindergarten/ kinder*),
- and transition (*transición*).

While the first two stages are not compulsory, as of 1991 all children are required by law to attend the transition grade. Establishments providing this type of education are generally called *jardín*, *jardín infantil*, *kindergarten*, or more informally *kinder*. There are no admission requirements for any of the three grades at this level.

The minimum educational requirement for preschool teachers is the completion of a baccalaureate (*bachillerato*) and the postsecondary diploma cycle in teacher education. For details on teacher education, see Chapter 6.

The primary goal of education at this level is to promote various aspects of a child's development: biological, sensory, cognitive, social, affective, and spiritual. During the first two stages of preschool, children participate in educational and recreational activities that stimulate their creativity and teach them to express themselves. The transition grade emphasizes skills that prepare the young students for the demands of the following stages of their education. During this phase, children acquire basic skills in reading, writing, and mathematics. A sample curriculum with hourly distribution is shown in Appendix C.

In adherence to national legislation, preschool students must receive a minimum of 20 full hours of instruction per week, which amounts to 800 full hours per school year. The focus of preschool education is on the quality of a child's development. Therefore, evaluation is not expressed in points or percentages but rather as descriptive progress reports. Students cannot fail a grade, and upon completion of the transition stage, they proceed automatically to elementary school.

Elementary Education (age 6-11 years)

General Information

Elementary education in Colombia is obligatory and encompasses grades 1 through 5. It constitutes the first cycle of basic education. Establishments providing this type of education have traditionally been called *escuelas* (schools) or *escuelas primarias* (primary/elementary schools), but nowadays they are generally incorporated into larger establishments providing secondary education as well. There are no specific requirements for admission to this stage of education other than having attended the transition grade.

The minimum educational requirement for preschool teachers is the completion of a baccalaureate (*bachillerato*) and the postsecondary diploma cycle in teacher education. For details on teacher education, see Chapter 6.

Curriculum

At the elementary level, students receive a minimum of 25 full hours of instruction per week, which amounts to a minimum of 1,000 full hours per school year. A sample curriculum with hourly distribution is shown in Appendix C.

Before the General Law of Education came into effect in 1994, the curriculum for elementary education was organized around seven major subject areas. Presently, the core of the curricula for elementary, lower secondary, and upper secondary education consists of the so called obligatory and fundamental areas (*áreas obligatorias y fundamentales*). The current legislation does not dictate the exact distribution of hours, which is determined by individual schools, but it does stipulate that the subjects taught as part of the obligatory and fundamental areas must account for a minimum of 80% of the total instructional hours. Options within the obligatory areas and possible additional subjects are chosen and developed by schools. The selection is based on regional demands and the resources available. The local Secretariats of Education are responsible for aiding individual institutions in this process. Before the curricula are implemented, they have to be reviewed and approved by the Secretariats. Refer to Appendix C for a sample of a current school curriculum.

Figure 3.3. Core areas for elementary, lower secondary, and upper secondary school curricula

			Prior to 1994	After 1994			
Upper secondary	Lower secondary	Elementary	Core areas: – Spanish language – Mathematics – Social studies – Natural sciences – Aesthetic and manual education – Religion – Physical education	Obligatory and fundamental areas: – Humanities, Spanish language, and foreign languages – Mathematics – Social sciences, history, geography, political constitution and democracy – Natural sciences and environmental education – Artistic and cultural education – Religious education* – Physical education, recreation, and sports – Education in ethics and human values – Technology and computing	Elementary	Lower secondary	Upper secondary
			Additional areas: – Technology studies – Foreign language				
			Vocational initiation (in Grades 8 and 9)				
			Additional subject: – Philosophy	Additional obligatory and fundamental areas: – Philosophy – Economic and political sciences			
			Specialization	Specialization			

* Religious education is offered by all educational establishments, but as of 1991, participation in this subject in public schools is not mandatory.

Examinations and Exit Credentials

In Colombian schools, passing to the next grade is based exclusively on internal assessments. In Grade 5, all children participate in the national SABER Tests (*Pruebas SABER*), which measure basic skills in the areas of language, mathematics, sciences, and civic competencies. The primary objective of the tests is to assess the quality of education provided by individual schools. Hence, while the tests are a good indicator of the general level of skills and knowledge acquired by individual students, they have no direct impact on whether or not a student passes the grade.

Upon successful completion of elementary school, students may receive the Certificate of Completion of the Fifth Grade of Elementary Instruction (*Certificado al Quinto Grado de Enseñanza Primaria*), but in most cases they will only receive a transcript of all the courses completed and the grades achieved. All students are obliged by law to continue their education for another four years at the lower secondary level.

Lower Secondary Education (age 11-15 years)

General Information

Despite numerous reforms, the overall structure of secondary education in Colombia has remained unchanged for several decades. Secondary studies last 6 years in total, with 4 years of instruction at the lower secondary level and 2 more years at the upper secondary level.

Lower secondary education represents the second cycle of basic education and the last stage of compulsory education. It encompasses grades 6 through 9. The most common name for lower secondary education nowadays is *educación básica secundaria*, but the terminology may vary. The sole requirement for admission to lower secondary education is successful completion of elementary school. Establishments providing lower and upper secondary education are usually called *colegios*, *liceos*, *gimnasios*, or *institutos*.

The minimum educational requirement for lower secondary teachers is an undergraduate degree in education (*licenciatura*). Alternatively, teachers can hold an undergraduate degree in a specific profession, preferably related to the subject they intend to teach, supplemented by additional teacher training. For details on teacher education, see Chapter 6.

Figure 3.4. Examples of alternative and previously used names
for lower secondary education in Colombia

Spanish term	English translation
Educación* básica secundaria	Basic secondary education
Educación básica – ciclo de secundaria	Basic education – secondary cycle
Educación secundaria – ciclo básico	Secondary education – basic cycle
Educación media – ciclo básico	Middle education – basic cycle
Ciclo básico (de secundaria)	Basic cycle (of secondary school)
Ciclo de secundaria	Secondary school cycle
Primer ciclo de la enseñanza media	First cycle of middle instruction
Bachillerato básico	Basic baccalaureate**

* The terms *educación* (education) and *enseñanza* (instruction) are often used interchangeably.
** The English term *baccalaureate* refers to secondary school education.

Curriculum

Students enrolled in lower secondary education receive a minimum of 30 full hours of instruction per week, amounting to a minimum of 1,200 full hours per school year. A sample curriculum with hourly distribution is shown in Appendix C.

Prior to 1994, lower secondary curriculum was organized around the core areas described in Figure 3.3. Grades 6 and 7 were referred to as vocational exploration (*exploración*

vocacional) since during this stage the students would decide on the field they wished to specialize in. In Grades 8 and 9, the number of hours spent on general subjects was slightly decreased as students began their specialization in an area of their interest. These last two years of lower secondary education were known as vocational initiation (*iniciación vocacional*). Presently, the curriculum for lower secondary education is structured around the same obligatory and fundamental areas as elementary education. The process and regulations for curriculum design are also the same as for the elementary level.

Examinations and Exit Credentials

Passing to the next grade (and the next education level) is based exclusively on internal school assessments. In Grade 9, students again participate in the national SABER Tests, administered in the subject areas of language, mathematics, sciences, and civic competencies. The results of these examinations are not counted towards the students' final evaluation.

Completion of Grade 9 concludes the ten years (transition grade plus Grades 1-9) of obligatory education for Colombian youth. In most cases, those planning to continue their education at the upper secondary level proceed automatically to Grade 10, without being awarded a certificate. Some schools, however, may award

- the Certificate of Basic Secondary School Studies (*Certificado de Estudios del Bachillerato Básico*),
- which can also be called Certificate of Completion of Studies of Basic Education (*Certificado de Término de Estudios de Educación Básica*)
- and which was formerly known as the Certificate of Completion of the Basic Cycle of Middle Instruction (*Certificado de Aprobación del Ciclo Básico de Enseñanza Media*).

Prior to 1974, students who successfully completed Grade 9 with a specialization in commerce or industry were granted the title of *experto* (expert).

Depending on their personal inclinations and academic performance, students graduating from Grade 9 have three options open to them: to continue their studies at the upper secondary level, to join a technical apprenticeship program, or to seek employment.

Upper Secondary Education (age 15-17 years)

General Information

Upper secondary education in Colombia is not obligatory and covers grades 10 and 11. It is designed to represent the consolidation and culmination of the knowledge and skills acquired at the previous levels. The only requirement for admission to upper secondary education is successful completion of Grade 9.

The minimum educational requirement for lower secondary teachers is an undergraduate degree in education (*licenciatura*). Alternatively, teachers can hold an undergraduate degree in a specific profession, preferably related to the subject they intend to teach, supplemented by additional teacher training. For details on teacher education, see Chapter 6.

This level of education is referred to as *educación media* or *educación media vocacional*, but the actual program of study is commonly referred to as *bachillerato* (literally the baccalaureate). The name of the credential or the title that students receive upon graduation is *bachiller*. The Spanish term *bachiller* is also used in reference to the person holding the title. The use of the word *vocacional* (vocational) in connection with this level of education does not mean that the program provides occupational or technical training but rather that it allows students to specialize in either an academic or a more professionally-oriented area.

Figure 3.5. Examples of alternative and previously used names for upper secondary education in Colombia

Spanish term	English translation
Educación* media**	Upper secondary education
Educación media académica	Academic upper secondary education
Educación media diversificada	Diversified upper secondary education
Educación media vocacional	Vocational upper secondary education
Educación secundaria vocacional	Vocational secondary education
Educación media – ciclo vocacional	Upper secondary education – vocational cycle
Educación secundaria – ciclo vocacional	Secondary education – vocational cycle
Ciclo segundo (de secundaria)	Second cycle (of secondary school)
Ciclo vocacional (de secundaria)	Vocational cycle (of secondary school)
Bachillerato superior	Higher baccalaureate
Bachillerato universitario	University baccalaureate
Bachillerato diversificado	Diversified baccalaureate

* The terms *educación* (education) and *enseñanza* (instruction) are often used interchangeably.
** *Media* literally means "middle," but it was translated here as "upper secondary" for greater clarity.

Curriculum

Just like at the lower secondary level, upper secondary students must receive a minimum of 30 full hours of instruction per week, amounting to a minimum of 1,200 full hours per school year. In practice, students generally receive 35-40 hours of weekly instruction.

The main areas of upper secondary curricula before and after 1994 are summarized in Figure 3.3. The process and regulations for curriculum design are the same as for the elementary and lower secondary levels. A sample curriculum with hourly distribution is shown in Appendix C.

Because of the specialized nature of upper secondary education in Colombia, traditionally the *bachillerato* programs have been described in terms of their type (*tipo*), modality (*modalidad*), specialty (*especialidad* or *opción*), or area (*área*). Over the years, the actual baccalaureate streams have changed little, but during different time periods, the programs were officially grouped in different ways. In practice, there was great overlap in terms of the time periods and the nomenclature.

Figure 3.6. Types of *bachilleratos* (i.e. baccalaureate programs) offered during different time periods

a) Starting in 1994

Spanish designation	English translation
Bachillerato académico	Academic baccalaureate
Bachillerato (in a specialization)	Baccalaureate (in a specialization)

b) Officially starting in 1978*

Spanish designation	English translation
Bachillerato en ciencias	Baccalaureate in sciences
Ciencias matemáticas	Mathematical sciences
Ciencias naturales	Natural sciences
Ciencias humanas	Human sciences
Bachillerato en tecnología	Baccalaureate in technology
Pedagógico	Pedagogy
Industrial	Industrial
Agropecuaria	General agriculture
Comercial	Commercial
Salud y nutrición	Health and nutrition
Educación física y recreación	Physical education and recreation
Promoción de la comunidad	Community development
Bachillerato en arte	Baccalaureate in arts
Bellas artes	Fine arts
Artes aplicadas	Applied arts

* These reforms to the *bachillerato* programs were legislated by Decree 1419 in July 1978, but they were never uniformly implemented by Colombian schools and the old nomenclature largely prevailed.

c) Starting in 1974

Spanish designation	English translation
Bachillerato académico or	Academic baccalaureate or
Bachillerato clásico*	Classical baccalaureate
Bachillerato comercial	Commercial baccalaureate
Bachillerato industrial	Industrial baccalaureate
Bachillerato agropecuario	Agricultural baccalaureate
Bachillerato en promoción social	Baccalaureate in social service
Bachillerato pedagógico or	Pedagogical baccalaureate or
Formación normalista	Teacher training

* The only difference between the academic and the classical program was that the latter would in most cases offer Latin as a second language.

d) Prior to 1974

Spanish designation	English translation
Bachillerato académico or *Bachillerato clásico*	Academic baccalaureate or Classical baccalaureate
Bachillerato técnico comercial	Technical commercial baccalaureate
Bachillerato técnico industrial	Technical industrial baccalaureate
Bachillerato técnico agrícola	Technical agricultural baccalaureate
Educación normalista (leading to the titles of *Maestro/a**, *Maestro/a Bachiller*, *Maestro/a Superior*, or *Normalista Superior*)	Teacher education (for preschool and elementary school teachers)

*Maestro denotes a male teacher while *maestra* is the feminine form of the word.

In 1994, the General Law of Education divided baccalaureate programs into those with an academic orientation (*carácter académico*) and those with a technical orientation (*carácter técnico*).

- Academic orientation: academic core + academic specialization

  The purely academic stream offers students general academic education plus the option to specialize in a specific academic area such as natural sciences, social sciences, humanities, arts, or foreign languages. Those who complete the program graduate with the title of *bachiller académico* (academic baccalaureate) and generally enter higher education. The academic baccalaureate has been by far the most popular one among Colombian students. It is also the type of baccalaureate program that private schools tend to offer.

- Technical orientation: academic core + professionally-oriented specialization

  The technical stream aims to prepare students for entry into higher education as well as for employment in a specific field. The numerous areas students can specialize in include agriculture, commerce, finances, administration, ecology, industry, computing, mining, health, recreation, tourism, sports, and others as determined by regional and labour market demands. Graduates from all modalities of the technical stream receive the title of *bachiller* in their chosen specialization.

At the upper secondary level, a school will normally offer only one or two kinds of *bachillerato*. The National Institutes of Diversified Middle Education (*Institutos Nacionales de Educación Media Diversificada* or *INEM*), frequently described as comprehensive secondary schools, are an exception since they have been designed to provide various types of academically- and technically-oriented *bachilleratos*. The *escuelas normales superiores* (teacher training schools; literally higher normal schools) also offer secondary education with a focus on academic subjects and teacher training.

Another type of institutions authorized to provide secondary education are military schools (*colegios militares*), although the military secondary school diploma (*bachiller militar* or *bachiller académico con orientación militar*) is not very common.

<u>Examinations and Exit Credentials</u>

Successful completion of a *bachillerato* leads to the title of *bachiller* in a specific area. For example, a student graduating from the program of *bachillerato académico* would be awarded the title of *bachiller académico*. On the actual certificate, the name of the credential can be preceded by phrases like the following:

- *título de...* (title of…),
- *diploma de...* (diploma of…), or
- *grado de...* (degree of…).

In fact, the above phrases can precede any Colombian academic credential, regardless of the level of study. The *bachiller* diploma is often referred to in English as the baccalaureate or a secondary school diploma. Students graduating from international schools generally have the option of obtaining two credentials: the Colombian *bachiller* and its foreign equivalent or an International Baccalaureate diploma.

The title of *bachiller* can also be acquired by passing an official validation examination (*Examen de Validación del Bachillerato Académico*) administered by ICFES (*Instituto Colombiano para el Fomento de la Educación Superior* or the Colombian Institute for the Promotion of Higher Education). Prior to the 1990s, the holders of a certificate of occupational aptitude (*certificado de aptitud ocupacional*) or CAO, formerly referred to as certificate of professional aptitude (*certificado de aptitud profesional*) or CAP, who accumulated 2 years of work experience could also obtain a Certificate of Equivalence of the Secondary School Diploma (*Certificado de Equivalencia del Grado de Bachiller*) issued by ICFES. Although this certificate did not have equal academic value as a regular *bachiller* diploma or a *bachiller* diploma obtained through validation, it gave its holders access to education at the intermediate/professional technical and technological levels. Also, even though it is not a widespread practice, some upper secondary schools may allow their students to earn certain vocational designations (i.e. CAOs) at the same time as the students are working towards their *bachiller* title.

In terms of documentation, upper secondary graduates receive a diploma, usually accompanied by a graduation record and a transcript, issued by the school where they completed their *bachillerato*. Samples and detailed descriptions of these documents can be found in the chapter on documentation.

The baccalaureate entitles graduates to either seek employment or apply for admission to postsecondary institutions. It is important to emphasize that all types of *bachiller* entitle students to enter any program at an institution of higher education, provided that they satisfy the requirements set by the institution and pass the State Examination for Admission to Higher Education (*Examen de Estado para Ingreso a la Educación*

Superior). This examination is commonly referred to as *examen de estado* (state exam) or *pruebas ICFES* (ICFES tests) and is held in all major cities twice a year. It has been administered directly by ICFES since 1968, but it was not until 1980 that participation in the exam became compulsory for all students planning further studies. The exam consists of a series of tests designed to assess students' competencies in the areas of natural sciences (biology, physics, chemistry), social sciences, Spanish language, philosophy, mathematics, a foreign language (English, French, or German), and selected interdisciplinary topics (e.g. environmental studies, culture and communication, society and violence). Students can consult their scores online on the ICFES website. Sample exam results are shown in the chapter on documentation. The results are also important to schools since the students' performance determines the quality ranking of each educational institution.

Grading Scales

As a general rule, Colombian students receive four quarterly report cards and one final evaluation report. The regulations for passing a grade are typically as follows:

- Students must obtain an overall minimum final average of 6.0 (the lowest passing grade) in order to be promoted to the next grade level.
- Students who fail only one subject may still be promoted to the next grade if their grade point average is at least 7.0.
- Students who fail one or two subjects and have a low overall average are required to take make-up exams.
- Students must repeat a year if they obtain a failing grade in three or more subjects or if they are absent without justification 25% of the class time in the course of a school year.

It is the responsibility of each school to ensure that 95% of all students pass to the next grade.

Several grading scales have been used in Colombia in recent years. The terminology for evaluation is set by the Ministry of National Education, but the exact criteria are determined by individual schools. In other words, the point and percentage equivalents in the figures below should be viewed as approximate values.

Figure 3.7. Grading scales for elementary, lower secondary, and upper secondary education

a) 2002 – present

Spanish term	English translation	Approx. point and percentage equivalent	Comments
Excelente (E)	Excellent	9 – 10 or 90 – 100%	Maximum grade
Sobresaliente (S)	Outstanding	8 – 8.9 or 80 – 89%	
Aceptable (A)	Acceptable	6 – 7.9 or 60 – 79%	Lowest passing grade
Insuficiente (I)	Insufficient	4 – 5.9 or 40 – 59%	Failing grade
Deficiente (D)	Deficient	0 – 3.9 or 0 – 39%	

b) 1994 – 2002

Spanish term	English translation	Approx. point and percentage equivalent	Comments
Excelente (E)	Excellent	8 – 10 or 80 – 100%	Maximum grade; awarded to students who exceed most of the performance expectations
Bien/*Bueno* (B)	Good	6 – 7.9 or 60 – 79%	Lowest passing grade; awarded to students who meet most of the performance expectations with only minor limitations or deficiencies
Insuficiente (I)	Insufficient	1 – 5.9 or 0 – 59%	Failing grade; awarded to students who do not meet most of the performance expectations

Figure 3.8. Older grading scales for lower and upper secondary education

a) 1974 – 1994

Grade	Alternative point equivalent*	Comments
9.5 – 10.0	95 – 100	Maximum grade; rarely attained; indicates superior performance
8.5 – 9.4	85 – 94	Indicates excellent performance
7.5 – 8.4	75 – 84	Indicates good performance
6.0 – 7.4	60 – 74	Lowest passing grade; indicates satisfactory performance
1.0 – 5.9	0 – 59	Failing grade

* The 100-point scale gained popularity after 1978, but it was never universally adopted by all schools.

Grade	Spanish term	English translation	Comments
5	*Muy bien*	Very good	Maximum grade
4	*Bien*	Good	
3	*Regular*	Regular	Lowest passing grade
2	*Mal*	Bad	Failing grade
1	*Muy mal*	Very bad	

To illustrate how the interpretation of the evaluation criteria can vary among institutions, sample grading scales employed by three schools in Bogotá are shown below in Figure 3.9. International schools frequently use parallel grading scales prevalent in their home country as well. Detailed evaluation criteria are sometimes specified on the transcripts issued by the schools.

Figure 3.9. Grading scales from three schools in Bogotá
with the lowest passing grade marked in bold (September 2007)
(Source: Institutional websites, 2007.)

Grade	Colegio Colombo Hebreo	Colegio Abraham Lincoln
Excelente (E) – Excellent	90 – 100%	91 – 100%
Sobresaliente (S) – Outstanding	80 – 89%	81 – 90%
Aceptable (A) – Acceptable	**70** – 79%	**76** – 80%
Insuficiente (I) – Insufficient	50 – 69%	41 – 75%
Deficiente (D) – Deficient	10 – 49%	0 – 40%

Grade	Colegio Andino	
	Oral performance	**Written exams**
Muy bueno – Very good	9.0 / 9.5 / 10.0	9.0 – 10.0
Bueno – Good	8.0 / 8.5	8.0 – 8.9
Satisfactorio – Satisfactory	7.0 / 7.5	7.0 – 7.9
Aceptable – Acceptable	**6.0** / 6.5	**6.0** – 6.9
Insuficient – Insufficient	4.0 / 4.5 / 5.0 / 5.5	4.0 – 5.9
Deficiente – Deficient	2.0 / 2.5 / 3.0 / 3.5	2.0 – 3.9

4. HIGHER EDUCATION

Overview

Enacted in 1992, the Law of Higher Education (*Ley de Educación Superior*) or Law 30, forms the legal basis for the organization of postsecondary education in Colombia. Any type of studies following the completion of the upper secondary level is generally referred to in Colombia as higher education (*educación superior*). The term postsecondary (*postsecundaria*) is used less frequently in Spanish.

Figure 4.1. Structure of Colombia's higher education system
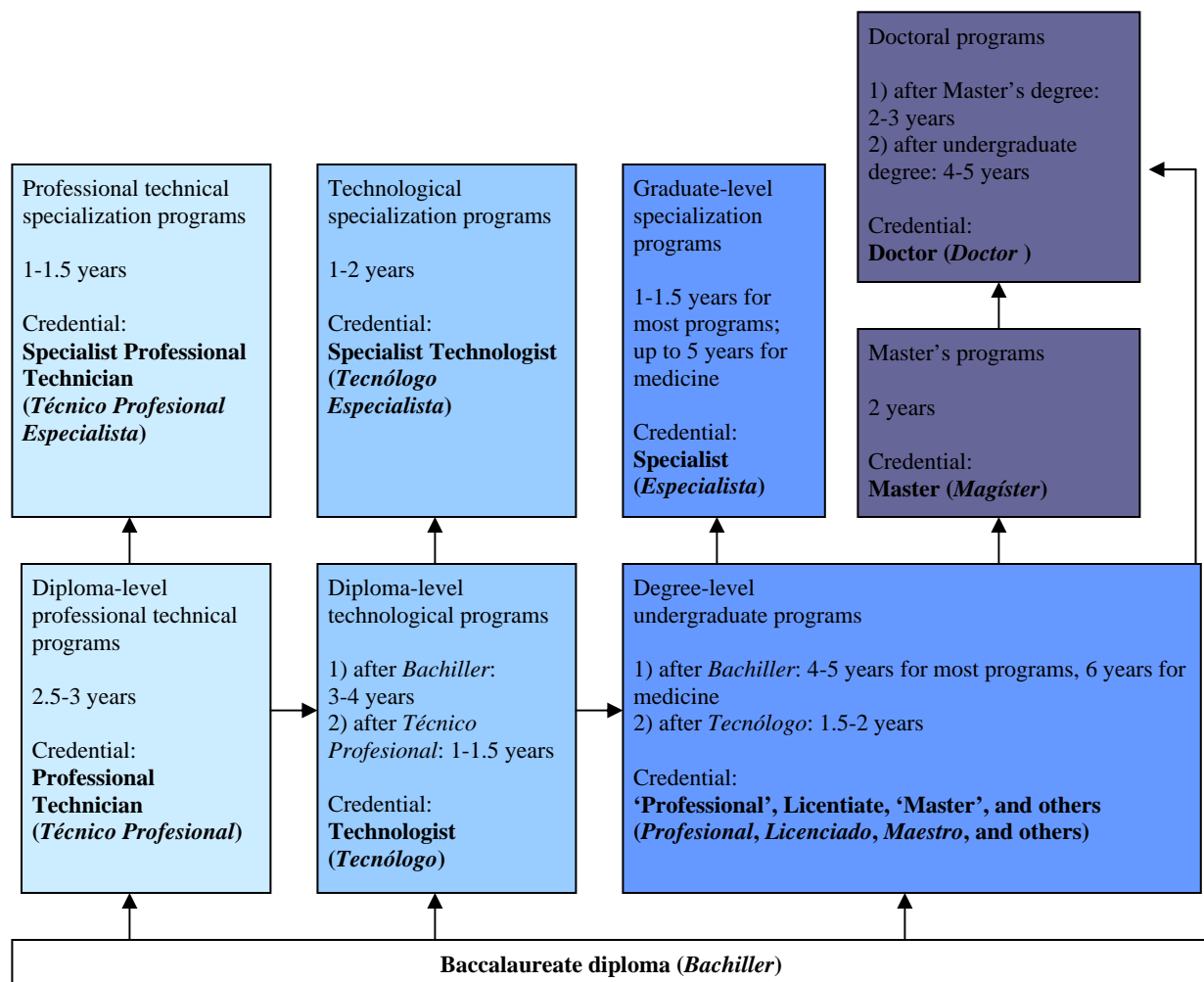
Note:

Any of the credentials above can be preceded by phrases like *título de…* (title of**…),** *diploma de…* (diploma of…), *grado de…* (degree of…), *grado profesional de…* (professional degree of…), or *título profesional de…* (professional title of…). The last two phrases tend to be used with undergraduate degrees.

Colour legend:

Education imparted primarily at professional technical institutions

Education imparted primarily at technological institutions

Education imparted primarily at universities, university institutions, and technological schools

Education imparted exclusively at universities

41

The institutions providing higher education are classified into the categories of professional technical institutions, technological institutions, technological schools, university institutions, and universities. In Spanish, the actual name of any one of the above institutions can include the words *corporación* (corporation), *fundación* (foundation), *escuela* (school), *colegio* or *colegio mayor* (college), *politécnico* (polytechnic), *unidad* (unit), or *instituto* (institute). Most universities and university institutions will have the word *universidad* or *universitaria* in their name, but there are exceptions. All of these educational establishments can be either public or private. The postsecondary career paths are divided into technical, technological, and university programs, each leading to a specific title. The National System of Information of Higher Education (*Sistema Nacional de Información de Educación Superior*) or SNIES maintains a searchable online database of information about all registered higher education institutions and programs.

Ever since the colonial times, higher education in Colombia has been centered in major urban centres. The cities of Bogotá, Barranquilla, Cali, and Medellín account for more than 75% of all Colombian enrolments in higher education. Overall, in 2006 the country had 276 postsecondary institutions offering 11,838 programs.[xvii] The total number of students enrolled in higher education that year reached 1,301,728, with over 70% of them pursuing undergraduate studies at universities and university institutions.[xviii] Management, economics, law, and engineering are still the most popular programs and account for half of all university enrolments.

Figure 4.2. Number of higher education establishments in Colombia (April 2006)
(Source: Cárdenas S., 2006:11.)

Type of higher education establishment	Number of higher education establishments			
	Public	Private	Total	%
Professional technical institutions	11	40	51	18%
Technological institutions	17	43	60	22%
University institutions and technological schools	22	68	90	33%
Universities	31	44	75	27%
Total	**81**	**195**	**276**	**100%**

Public and Private Institutions

Unlike at the secondary level, private postsecondary institutions do not necessarily hold more prestige or offer better education than public ones. For instance, the Universidad Nacional de Colombia, a public institution, has been consistently ranked as the country's leading university. With a student population of more than 40,000 and seven campuses in different cities, the Universidad Nacional is Colombia's largest institution of higher education. Still, the number of places at state-run institutions of higher education is

limited, and about 70% of postsecondary students attend private establishments. This statistic contrasts sharply with enrollments in elementary and secondary education, where approximately 70-80% of students attend public schools.[xix]

Fees

Tuition fees at Colombian postsecondary schools are assessed by semesters of study and vary greatly by institution and by program. For example, the privately owned Universidad de los Andes is known as a rather costly university. With regard to specific programs, medicine and dentistry tend to be the most expensive regardless of the institution. The amount of the tuition per semester is frequently expressed in terms of the minimum monthly salary set by law. (As of January 2008, its amount is equal to COL\$ 461,500 or approximately CAN\$ 240.) The average tuition at a public university is generally less than one minimum monthly salary. Private universities can charge from six to over 20 times the amount. The admission to state-run postsecondary institutions is hence highly competitive.

Academic Year

The academic year for higher education institutions generally consists of two academic periods (*períodos académicos*) or semesters (*semestres*), each approximately 16 weeks long. The first semester usually runs from January or February until May or June and the second one from July or August until November or December. Institutions can also offer an additional semester of study during the remaining months or structure the academic year by trimesters (*trimestres*).

Administration

Colombian higher education institutions enjoy a very high degree of autonomy guaranteed by the political constitution of Colombia. Each institution has the right to determine virtually every aspect of its operation, including the structure and content of the academic programs it offers. The role of the state is largely limited to ensuring the overall quality of higher education. The most important government bodies involved in higher education are as follows:

- Ministry of National Education (*Ministerio de Educación Nacional*) – postsecondary education division headed by the Vice Minister of Higher Education (*Viceministro de Educación Superior*),
- ICFES – Colombian Institute for the Promotion of Higher Education (*Instituto Colombiano para el Fomento de la Educación Superior*),
- CESU – National Council of Higher Education (*Consejo Nacional de Educación Superior*),
- CNA – National Council of Accreditation (*Consejo Nacional de Acreditación*),

- CONACES – National Cross-Sector Commission for the Quality Assurance of Higher Education (*Comisión Nacional Intersectorial de Aseguramiento de la Calidad de la Educación Superior*), and
- ASCUN – Colombian Association of Universities (*Asociación Colombiana de Universidades*).

For a detailed breakdown of the administrative responsibilities of each agency, please refer to Appendix B.

Educational Requirements for Instructors

The minimum educational requirement for higher education instructors is an undergraduate degree, but many instructors and professors will have completed graduate-level studies, often specializing in university education. For details on teacher education, see Chapter 6.

Recognition of Institutions and Programs

Licensing of Institutions (compulsory)

The process of quality assurance in higher education begins with the licensing of individual educational establishments. The state, represented by the Ministry of National Education, must authorize the creation of all higher education institutions in Colombia. In order to be licensed to operate, prospective institutions must meet certain administrative, organizational, and academic criteria. Successful candidates are then awarded their legal status (*personería jurídica*) which authorizes them to operate as a postsecondary institution. Since 2003, CONACES has assisted the Ministry of National Education in verifying whether prospective institutions meet the required quality criteria. Prior to that date, ICFES fulfilled this function.

Registration of Programs (compulsory)

In addition to the licensing of individual establishments, as of September 2003 all programs leading to an academic title are required to obtain a qualified register (*registro calificado*), issued by the Ministry of National Education. Only programs with qualified registers are allowed to operate. The register is a form of obligatory certification based on careful evaluation of the contents and structure of the program by qualified assessors from the corresponding area. Programs that meet the minimum quality standards set by national legislation are issued a register for the period of 7 years. The register is expressed as a code (*código SNIES*) and is often quoted as part of information about the program. Originally, the number consisted of 21 digits, but as of 2006 it is composed of four to five digits. The ministry's website provides updated lists of institutions that have not fulfilled this requirement for the programs they offer or have not renewed their registers.

Prior to 2003, there was a similar procedure in place. Postsecondary programs had to be approved by ICFES and were similarly assigned a 21-digit code (*código ICFES* or *registro ICFES*), confirming their registration. In 2003, this responsibility was assigned to the Ministry of National Education, which is supported in this function by CONACES. The current registration process is stricter and aimed directly at ensuring the quality of the programs offered as opposed to merely registering them without a more in-depth review, as was the case in previous years.

Teacher Training Programs (compulsory)

The General Law of Education of 1994 required all teacher-training institutions to obtain a special kind of registration for their programs called *acreditación previa* (previous accreditation) that was later on recognized as the equivalent of the *registro calificado*.

Accreditation of Programs (voluntary)

The obligatory authorization to operate and offer programs should not be confused with accreditation, which is voluntary in Colombia. An institution can be fully authorized to offer a non-accredited program.

The National System of Accreditation (*Sistema Nacional de Acreditación*), headed by the CNA, was established in 1992. The details of the accreditation process – established after much research and numerous consultations with educational institutions, professional bodies, and other experts – were outlined shortly thereafter. The so called accreditation of high quality (*acreditación de alta calidad*), also referred to as accreditation of excellence (*acreditación de excelencia*) or register of high quality (*registro de alta calidad*), represents official recognition of the high quality of a particular program. The process is rigorous and consists of several steps:

1) internal evaluation, commonly referred to as self-evaluation (*autoevaluación*), conducted by the institution soliciting accreditation according to the methodology set by the CNA,
2) external evaluation, also called peer evaluation, conducted by expert academic assessors chosen by the CNA (results in a detailed report and possible recommendations for improvement),
3) response of the educational institution to the report and its recommendations,
4) final evaluation by the CNA,
5) granting of the accreditation by the Ministry of National Education.

Accreditation is awarded on a program-by-program basis, starting at the undergraduate level, for a period of 4, 6, 8, or 10 years (or 3 to 10 years prior to December 2006). In practice, the period for which accreditation is awarded tends to be regarded as an indicator of quality in itself. Nevertheless, the CNA has contradicted this view and has emphasized the fact that the period takes into consideration the amount of time necessary for the

institution to implement certain changes it has committed to. Until now, only 547 postsecondary programs have been accredited and 116 programs received a renewal of their accreditation. The vast majority of these programs is offered by universities and university institutions. The CNA maintains an updated list of all accredited programs on the council's website.

Accreditation of Institutions (voluntary)

The ultimate level of accreditation pertains to the entire institution (*acreditación institucional)* and is separate from the accreditation of individual programs. The process of institutional accreditation consists of the same steps as those outlined above, but the evaluation has a much broader scope and focuses on the organization, functioning, and accomplishments of the institution as a whole. Naturally, the quality of programs offered is taken into consideration as well. Institutional accreditation is temporary and can be awarded for a period of 4, 7, or 10 years (or 6 to 12 years prior to December 2006). Currently, there are only 13 accredited institutions in Colombia. All of them are universities. The institutional accreditation process does not apply to the Universidad Nacional de Colombia, which was originally created as a model for other postsecondary institutions. The CNA website provides more details about the accredited institutions and the accreditation process.

Figure 4.3. Accredited higher education institutions in Colombia (as of March 2008)

Type	Institution	Year of accreditation	Period of accreditation
Public	Universidad de Antioquia	2003	9 years
	Universidad del Valle	2005	8 years
	Universidad Industrial de Santander	2005	8 years
	Universidad Tecnológica de Pereira	2005	7 years
	Universidad de Caldas	2007	4 years
Private	Universidad de los Andes	2005	9 years
	Universidad EAFIT (Escuela de Administración y Finanzas y Tecnologías)	2003	6 years
	Universidad Externado de Colombia	2004	7 years
	Universidad del Norte	2003	7 years
	Pontificia Universidad Javeriana	2003	8 years
	Universidad Colegio Mayor de Nuestra Señora del Rosario	2005	6 years
	Universidad de la Sabana	2006	4 years
	Universidad Pontificia Bolivariana	2006	4 years

<u>Financing of the Accreditation Process</u>

The financial cost of the process is shared between the institution applying for accreditation and the CNA. Individual institutions are responsible primarily for bearing the cost of the self-evaluation and any resulting activities related to improving targeted programs or the institution as a whole. The CNA has its own budget, assigned to it on a yearly basis by the Ministry of Finance and the National Department of Planning. Upon request from an institution, CNA can partly subsidize certain self-evaluation activities, but most of the council's budget goes to funding external evaluations, CNA's operations, and other accreditation-related projects.

Despite the fact that the Colombian state has thus far assumed most of the expenses associated with the overall implementation of the National System of Accreditation, the cost that individual institutions of higher education have to bear has prevented the majority of them from applying for accreditation. For example, [Universidad de Antioquia](#) was among the first universities to seek accreditation of its programs. In the 1999 fiscal year alone, the resources allocated by the university to internal evaluation and further improvement of already accredited programs amounted to US$ 341,818.

Still, while it is true that accreditation is a costly undertaking in Colombia, the process can significantly benefit institutions. Apart from the social recognition and prestige gained through accreditation, CESU has established certain academic and economic incentives for accredited programs (e.g. financial awards). Likewise, donors who make financial contributions to accredited programs are eligible for additional tax exemptions.

Types of Institutions

<u>Professional Technical Institutions (*Instituciones Técnicas Profesionales*)
and Technological Institutions (*Instituciones Tecnológicas*)</u>

Professional technical institutions (*instituciones técnicas profesionales*) offer predominantly higher technical and vocational programs. Prior to 1992, these institutions were called intermediate professional institutions (*instituciones intermedias profesionales*). Education at these schools has a strong practical orientation. Technological institutions (*instituciones tecnológicas*) offer a similar type of education, but the programs are more advanced and slightly longer. The focus of the programs offered by both types of institutions tends to be on engineering, management, and information technology. All education delivered by professional technical and technological institutions must be structured according to the model of educational cycles (*ciclos propedéuticos*) described in the corresponding section below.

<u>University Institutions (*Instituciones Universitarias*) and</u>
<u>Technological Schools (*Escuelas Tecnológicas*)</u>

University institutions (*institutciones universitarias*) and technological schools (*escuelas tecnológicas*) offer technical, technological, and undergraduate education in a wide range of occupations and professions. Programs at both kinds of institutions provide students with a solid foundation in academic knowledge and research, but those offered at technological schools tend to focus on applied disciplines and typically do not include programs in fine arts or humanities. Presently, there are very few technological schools in Colombia. Because of their small number and the many similarities shared with university institutions, technological schools are often grouped with the former into one single category of educational establishments.

<u>Universities (*Universidades*)</u>

Universities (*universidades*) represent the oldest type of postsecondary institutions in Colombia and focus on transmitting traditional academic knowledge and professional training. The most important characteristic that sets the universities apart from other postsecondary institutions is the emphasis on research activities. Colombian universities established prior to the 1950s enjoy particular prestige. Universities are also the only type of institutions in Colombia authorized to offer all kinds of programs and grant all academic titles up to the doctoral level. The smaller organizational units that comprise a university are *faculdades* (faculties), *escuelas* (schools or colleges), and *departamentos* (departments).

<u>Other Institutions</u>

Apart from the predominant types of establishments described above, there are some special cases of institutions providing higher education:

– Postsecondary <u>distance education institutions</u> and programs are becoming increasingly common in Colombia. For example, <u>Universidad Nacional Abierta y a Distancia</u> is an institution dedicated solely to delivering distance and virtual education. It currently offers over 50 programs at various levels. Another example is <u>Universidad Autónoma de Bucaramanga</u>, which has created a special division to deliver online courses leading to university degrees. In Colombia, all titles obtained through distance education have the same validity as those awarded to students who physically attend an educational institution.

– <u>Regional Centres of Higher Education</u> (*Centros Regionales de Educación Superior*) or CERES are created in regions with limited or no physical access to higher education institutions. Presently, there are 100 CERES throughout Colombia offering all kinds of postsecondary programs that target specific regional needs. The centres are defined as basic spaces equipped with sufficient telecommunication infrastructure that would allow students to access distance learning programs offered by existent institutions of higher education. Most of the CERES operate out

of a school classroom or a cultural centre. The exit credential is issued by the postsecondary institution delivering the program.

– Training centres administered by the National Apprenticeship Service (*Servicio Nacional de Aprendizaje*) or SENA can offer programs leading to the titles of professional technician and technologist in addition to numerous other vocational and apprenticeship programs.

– The so called special regime institutions (*instituciones de regimen especial*), which are mainly duly authorized military institutions, can provide all levels of postsecondary education as well.

Overview of Types of Programs and Qualifications

The benchmark credentials that can be earned upon completion of different higher education programs in Colombia are shown below.

Figure 4.4. Classification of Colombian higher education credentials in terms of both the Colombian and Albertan educational systems

Classification in Alberta	Credential name	Classification in Colombia
Programs classified as postsecondary diploma	*Técnico Profesional* (Professional Technician) *Tecnólogo* (Technologist)	**Programs classified as undergraduate**
Programs classified as undergraduate	*Profesional* ('Professional') *Licenciado* (Licentiate) *Maestro* ('Master')	
Programs classified as postsecondary diploma	*Técnico Profesional Especialista* (Specialist Professional Technician) *Tecnólogo Especialista* (Specialist Technologist)	**Programs classified as graduate**
Programs classified as graduate	*Especialista* (Specialist) *Magíster* (Master's degree) *Doctor* (Doctor's degree)	

It is important to note that there are significant differences in how the above qualifications are regarded in Colombia and in Canada. In Colombia, postsecondary programs are classified either as undergraduate (*pregrado*) or graduate (*postgrado*, also spelled as *posgrado*). The term *undergraduate* encompasses postsecondary diploma programs leading to the titles of professional technician and technologist as well as undergraduate degree programs. Another unique feature of the Colombian system is that specialization

programs span all levels and can be pursued after obtaining any one of the initial credentials. All specializations are viewed as graduate programs.

In Canada, there is a clear distinction made between postsecondary programs leading to a diploma and undergraduate programs leading to a degree. The definition of graduate-level programs is slightly different too as it does not include technical or technological specializations. The rest of this chapter is structured around the Canadian interpretation of these credentials.

Postsecondary Diploma Programs (Technical)

Professional Technician (*Técnico Profesional*)

Professional technical education (*formación técnica profesional*) is generally imparted at professional technical institutions and leads to the title of professional technician (*técnico profesional*) in a specific area. Prior to 1992, this level of education was referred to as intermediate professional education (*formación intermedia profesional*) and concluded with the title of intermediate professional technician (*técnico profesional intermedio*).

This level of education aims to provide students with the vocational training necessary to successfully exercise a specific occupation. The majority of professional technical programs is associated with practical professions. No programs are offered in the strictly humanistic areas. The curriculum is not academic in nature and does not involve any research. Rather, it focuses on hands-on skills and very specialized theoretical knowledge.

Admission

In order to be admitted to a program at this level, prospective students must have obtained the title of *bachiller* and a specific number of points on the ICFES State Examination for Admission to Higher Education (*Examen de Estado para Ingreso a la Educación Superior*). Many postsecondary institutions also require applicants to pass an additional entrance exam and a personal interview. Students who have successfully completed basic education (i.e. Grade 9), are at least 16 years old, have obtained a certificate of occupational/professional aptitude (*Certificado de Aptitud Ocupacional/Profesional*) from SENA, and have worked in the area of their specialization for a minimum of two years may also be admitted to professional technical programs.

Length of Program

The programs at this level are normally 5-6 semesters long.

Exit Credentials

Sample titles that graduates can obtain upon completion of their program are as follows:

– *Técnico Profesional en Diseño de Máquinas* (Professional Technician in Machine Design),

- *Técnico Profesional en Comercio Internacional* (Professional Technician in International Commerce),
- *Técnico Profesional en Diseño Gráfico* (Professional Technician in Graphic Design).

Some of the credentials commonly awarded upon completion of this stream of education prior to the 1980s included these titles:

- *Perito* (after 2-4 semesters of study),
- *Experto* (after 4-5 semesters of study), and
- *Técnico* (after 6 semesters of study).

Those who graduate as professional technicians can either continue their studies at the technological level or complete a postsecondary technical specialization in their field. The qualification of professional technician can also lead directly to employment.

Specialist Professional Technician (*Técnico Profesional Especialista*)

Professional technical specialization (*especialización técnica profesional*) programs allow students to explore a specific area of their field of study in greater detail. Specializations at this level are particularly common in finance, management, agriculture, and technology-related professions. Prior to 1992, no specialization programs were offered at this level.

Admission

Students seeking admission to professional technical specialization programs must possess the title of professional technician.

Length of Program

The programs typically have a duration of 2-3 semesters.

Exit Credentials

At the end of the program, students are awarded the title of specialist professional technician, which may vary slightly in the way it is worded in Spanish. For example, the title of Specialist Professional Technician in Public Management could be expressed as

- *Especialista Técnico Profesional en Gestión Pública*,
- *Técnico Profesional Especializado en Gestión Pública*, or
- *Técnico Profesional Especialista en Gestión Pública.*

After completing a professional technical specialization, most graduates enter the workforce.

<center>Technologist (*Tecnólogo*)</center>

Technological education (*formación tecnológica*) programs are offered predominantly at technological institutions (*instituciones tecnológicas*) and lead to the title of technologist (*tecnólogo*) in a specific area. The vast majority of the programs focuses on business, management, engineering technology, and communications. The curriculum has a stronger scientific and theoretical orientation than professional technical education and teaches students to design, implement, and manage the processes that are part of their professions.

Admission

Admission requirements for this level of education include the title of *bachiller* and a sufficient score on the ICFES State Examination for Admission to Higher Education. Alternatively, students with the title of *técnico profesional* in a related field can also seek admission to technological programs. Applicants are generally required to pass an additional admission exam and a personal interview administered by the postsecondary institution.

Length of Program

For students admitted to technological programs based on the title of *bachiller*, the programs typically last 6 semesters although some can have a duration of up to 8 semesters. After the introduction of educational cycles in 2002 (see below), graduates from related programs at the professional technical level require an additional 2-3 semesters of study to obtain the title of *tecnólogo*.

Exit Credentials

Upon completion of their studies, graduates can obtain titles such as these:

- *Tecnólogo en Ingeniería Industrial* (Industrial Engineering Technologist),
- *Tecnólogo en Informática y Telecomunicaciones* (Computer Technology and Telecommunications Technologist),
- *Tecnólogo en Administración de Empresas* (Business Administration Technologist).

The title of technologist allows students to pursue undergraduate studies, to complete a technological specialization in their field, or to seek employment.

<center>Specialist Technologist (*Tecnólogo Especialista*)</center>

Technological specialization (*especialización tecnológica*) programs allow students to further explore a particular aspect of their field of study, but in most cases they do not involve any extensive research. Specializations at this level pertain primarily to the areas of business management, commerce, finance, technology, and communications.

<u>Admission</u>

Students seeking admission to technological specialization programs must possess the title of technologist.

<u>Length of Program</u>

The programs generally have a duration of 2-4 semesters.

<u>Exit Credentials</u>

At the end of the program, students are awarded the corresponding title of specialist technologist, which may vary slightly in the way it is worded in Spanish. For instance, the title of Specialist Technologist in Marketing could be expressed as

- *Especialista Tecnológico en Mercadeo,*
- *Tecnólogo Especializado en Mercadeo,* or
- *Tecnólogo Especialista en Mercadeo.*

The completion of a technological specialization entitles the graduates either to seek employment at the appropriate level or to continue their studies. The combination of a technologist title plus a technological specialization is regarded in Colombia as comparable to an undergraduate degree.

Educational Cycles (*Ciclos Propedéuticos*)

Prior to 2002, the titles of professional technician and technologist were viewed predominantly as terminal qualifications leading to employment (with the exception of specialization programs). There was little connection between technical, technological, and undergraduate programs, and the transfer of credit practices between different institution types were not clearly defined, causing difficulties for students who wished to continue their education at a higher level without having to repeat several courses.

Figure 4.5. Organization of Colombian diploma and degree programs prior to 2002

53
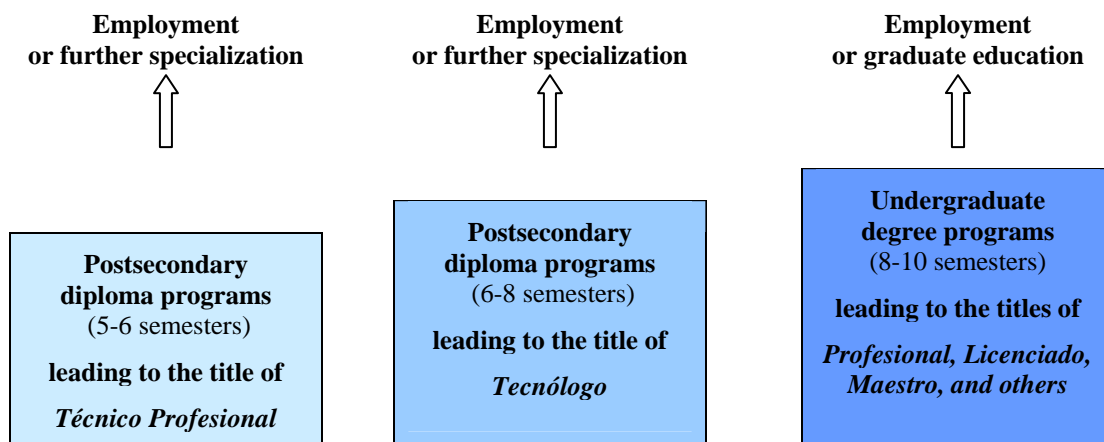
The model of the educational cycles (*ciclos propedéuticos*) was introduced in 2002 as a way of restructuring higher education in order to facilitate student mobility and make the system more flexible, sequential, and permeable. The model consists of three cycles that focus on the acquisition of specific competencies. The completion of each cycle allows the student to obtain a title and either seek employment or continue with the next cycle leading to a higher qualification. The first cycle corresponds to professional technical studies and concludes with the title of *técnico profesional*. The second cycle corresponds to technological education and leads to the title of *tecnólogo*. The third cycle corresponds to university-level studies and allows students to earn an undergraduate degree. In this way, the model of educational cycles combines diploma-level postsecondary education with degree-level undergraduate education.

Figure 4.6. Organization of Colombian diploma and degree programs after 2002
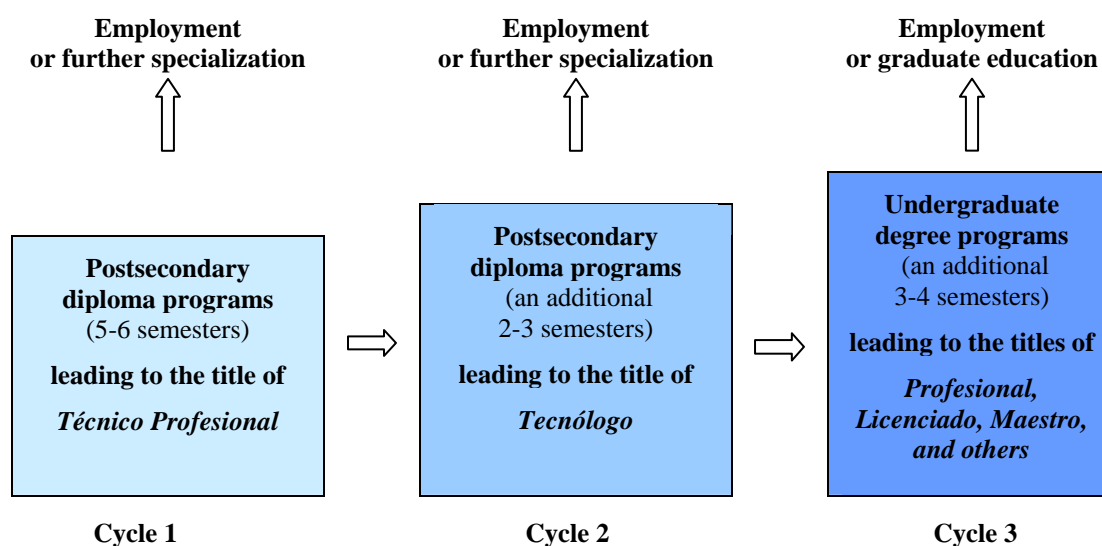
All technical professional and technological institutions are required to structure their programs in this way. The remaining types of higher education institutions are also encouraged to do so, but it is not likely that traditional universities will follow this pattern, especially since the model would be difficult to implement for areas like the humanities. Each educational cycle requires a separate *registro calificado*.

Undergraduate Degree Programs

Professional education (*formación profesional*) in Colombian terms is the equivalent of undergraduate education and is offered predominantly by universities and university institutions. In addition to area-specific courses, undergraduate curricula include a broad range of academic subjects. Undergraduate degree programs are academically more challenging than technical or technological education and usually require students to complete a small research project (*trabajo de grado* or *proyecto de grado*) or a practicum

(*práctica*) in the last semester of study. Solid knowledge of a foreign language, typically English, is usually a requirement for graduation as well and must be demonstrated by passing an international language test like TOEFL.

Admission

Admission requirements for this level of education include the title of *bachiller* and a sufficient score on the ICFES State Examination for Admission to Higher Education. Some students choose to complete a pre-university program preparing them for undergraduate studies and the ICFES State Examination for Admission to Higher Education. Such courses, however, are not entrance pre-requisites, have no academic value, and do not offer students any privileges such as advanced placement. Alternatively, students with a title of *tecnólogo* in a related field can also seek admission to undergraduate degree programs. All applicants are generally required to pass an additional admission exam and a personal interview administered by the postsecondary institution.

Length of Program

For students admitted to undergraduate degree programs based on the title of *bachiller*, the duration of their studies typically ranges from 8 to 10 semesters. After the introduction of educational cycles in 2002, graduates from related technological programs require an additional 3-4 semesters of study to obtain an undergraduate degree. Often the duration of a program will be expressed in academic credits only. For sample program durations, refer to Appendix D.

Exit Credentials

Even though an undergraduate degree in Colombia is normally referred to as a professional title (*título profesional*), the exact name of the degree can vary depending on the discipline studied. The four variations of Colombian undergraduate titles are summarized below. All of these degrees represent an equivalent credential and have the same academic and professional value.

Figure 4.7. Colombian undergraduate degrees

Undergraduate degree in…	Title awarded	Time period	Comments
A specific profession	Specific professional title e.g. *Abogado* (Lawyer)	Used currently and in the past	This is the most popular format of Colombian undergraduate titles.
A general field or discipline	*Profesional en…* + general area of study e.g. *Profesional en Comercio Internacional* ('Professional' in International Commerce)	Used from the early 1990s until present	If there is no specific name of profession associated with a particular field of study, the graduate will be granted the title of 'professional' (*profesional*) in the general area. Prior to the 1990s, the term *licenciado* was used instead of *profesional* for this type of degrees.
	Licenciado en… + general area of study e.g. *Licenciado en Terapia Física* (Licentiate in Physical Therapy)	Used prior to the early 1990s	
Education	*Licenciado en…* + area of education e.g. *Licenciado en Educación Básica con Énfasis en Humanidades y Lengua Castellana* (Licentiate in Basic Education with Focus on Humanities and Spanish Language)	Used currently and in the past	All undergraduate programs in education lead to the title of *licenciado*. Licentiates will often indicate an area of focus (*énfasis*) within a particular stream of education. Education students can also be granted a licentiate in a specific subject like mathematics or biology, representing teacher training in that particular subject.
Arts	*Maestro en…* + area of the arts e.g. *Maestro en Artes Plásticas* ('Master' in Plastic Arts)	Used currently and in the past	Undergraduate program in the arts lead to the title of *maestro*. This title should not to be confused with the upper secondary credentials of *maestro, maestro bachiller,* or *maestro superior*. Another similar title is that of *magíster* obtained after completion of a master's program or *maestría*.

It is important to note that the word *título* (title) is not an essential part of the actual name of Colombian credentials. In fact, on the degree certificate, all undergraduate degrees can be preceded by phrases like the following:

- *título de...* (title of…),
- *título profesional de...* (professional title of…),
- *diploma de...* (diploma of…),
- *grado de...* (degree of…),

    − *grado profesional de…* (professional degree of…).

Other undergraduate-level degrees and qualifications that were commonly used in the past are the designations of *diplomado*, *doctor*, and *egresado*.

Figure 4.8. Undergraduate-level titles and qualifications common in the past

Title or qualification awarded upon completion of…	Title or qualification awarded	Comments
Some undergraduate degree programs in general disciplines*	*Diplomado en…* + general area of study e.g. *Diplomado en Ciencias Políticas* (Diploma Holder in Political Sciences)	The title of *diplomado* was used very rarely in the past and was granted only by some universities.
Some undergraduate degree programs especially in law, medicine, and dentistry	*Doctor en…* + area of study e.g. *Doctor en Medicina* (Doctor in Medicine)	Prior to the 1980s, any program leading to the title of *doctor* was in all likelihood an undergraduate degree. Currently, the title of *doctor* is granted upon completion of the highest level of graduate studies.
Coursework for undergraduate degree programs	*Egresado en…* + area of study e.g. *Egresado en Finanzas* (Graduate of Finance)	This qualification does not represent a full academic credential. Rather, it indicates that the student completed most of the program requirements and coursework but did not complete the final project or did not satisfy a minor requirement in order to be granted the full title. Particularly in the 1970s, diplomas of *egresado* were common as employers made little distinction between graduates with the full title and those with the incomplete credential.

* Currently, the term *diplomado* is still in use, but it no longer refers to undergraduate degrees. It is a qualification obtained upon completion of short professional development courses or programs. Such programs are frequently offered by universities and have an approximate duration of 120 hours. A sample of a *diplomado* certificate in shown in the chapter on documentation.

After completing undergraduate studies, students can either enter the workforce or continue with graduate education leading to the titles of specialist, master, or doctor.

Graduate Degree Programs

<u>Specialist (*Especialista*)</u>

Graduate-level specialization (*especialización profesional* or simply *especialización*) programs allow students who have completed their undergraduate studies to continue exploring a specific aspect of their area of study in greater detail. Specializations at this level are particularly common professions associated with medicine, law, and business administration. The biggest difference between specializations and other graduate programs is that the former will usually not require students to conduct any extensive research.

<u>Admission</u>

Students seeking admission to graduate-level specialization programs must possess an undergraduate degree in a related area of study.

<u>Length of Program</u>

The typical duration for general graduate-level specialization programs is 2-3 semesters. It is not uncommon for specializations in health care professions to last up to 10 semesters. The most popular medical specializations and the typical length of the programs are shown in Appendix E.

<u>Exit Credentials</u>

At the end of the program, students are awarded the title of specialist (*especialista*). Sample specialist titles follow:

- *Especialista en Medicina Familiar* (Specialist in Family Medicine),
- *Especialista en Contabilidad Gerencial* (Specialist in Managerial Accounting),
- *Especialista en Derecho Comercial* (Specialist in Commercial Law), etc.

The completion of a graduate-level specialization entitles students either to seek employment at the appropriate level or to continue with graduate studies. Those who choose to enter a program leading to the titles of master or doctor will generally not be given any transfer of credit for the studies completed at the specialization level.

<u>Master (*Magíster*) and Doctor (*Doctor*)</u>

Enrollment in programs leading to the titles of master (*magíster*) and doctor (*doctor*) remains low in Colombia. In 2006, for instance, out of all the students pursuing postsecondary education, only 1% were enrolled in master's programs and 0.1% in doctoral programs.[xx] By the mid-1980s, the only institution to offer doctoral programs in Colombia was the Pontificia Universidad Javeriana. According to SNIES, as of December 2007, there were 610 master's programs offered by 68 institutions and 104 doctoral programs offered by 23 institutions. In terms of curriculum, both programs require students to complete some coursework, but the primary emphasis is on research.

<u>Admission</u>

An undergraduate degree is the main pre-requisite for admission to either program. A master's degree is not a pre-requisite for entrance into doctoral programs, but most students will complete one. Certain graduate programs will also accept students based on a technologist title plus a technological specialization since in Colombia this combination is comparable to an undergraduate degree. Prospective students may also be required to pass an entrance examination administered by the faculty they are applying to.

<u>Length of Programs</u>

Master's programs are normally 4 semesters long.

Doctoral programs last 8-10 semesters if taken immediately after the undergraduate degree or an additional 4-6 semesters if taken after a master's degree in the same field.

<u>Exit Credentials</u>

Master's students must prepare and defend a comprehensive research project (*trabajo de investigación*) in order to graduate. An example of a master's title would be *Magíster en Administración* (Master in Management). The feminine form of *magíster*, which is *magístra*, is not commonly used. After being awarded the title of *magíster* in a specific field, the graduates can either continue their studies at the doctoral level or seek employment.

Doctoral candidates are similarly required to complete and defend a thesis (*tesis*) that represents an original contribution to their field of study. An example of a doctoral title would be *Doctor en Ciencias de la Educación* (Doctor in Education Sciences). The title of *doctor* is the highest educational award in the Colombian education system.

University-Level Education in Selected Professional Fields

This section describes in greater detail university-level programs in accountancy, business administration, dentistry, engineering, law, medicine, nursing, and physiotherapy.

<u>Admission</u>

The admission requirements for undergraduate programs in the professions listed above are the same as for any other undergraduate program. Every student entering higher education must present the title of *bachiller*, obtain a sufficient score on the ICFES State Examination for Admission to Higher Education, and fulfill any additional requirements set by individual institutions and/or faculties.

<u>Program Structure</u>

The vast majority of undergraduate programs in the main professional fields require students to physically attend classes and participate in practica. Very few of these programs are offered through distance education. In terms of courses, undergraduate

programs in Colombia tend to consist of a large core component, obligatory for all students in the program, and a small number of elective courses. Great emphasis is also placed on practical application of skills and knowledge. Hence, laboratories and practica, which can have different duration for different professions, are an essential part of most undergraduate programs.

Given the general nature of undergraduate studies in Colombia, students wishing to deepen their knowledge of a certain branch of their field of study usually opt for completing a specialization following their undergraduate degree. This is one of the main reasons why specializations are so common, particularly in medical and business-related fields. With the exception of medical specializations, the structure and duration of graduate programs in the professions described in this section is no different than for other disciplines (i.e. 2-3 semesters). Most medical specializations last longer (up to 10 semesters).

The total number of courses and academic credits required to obtain a degree is determined by individual institutions. An undergraduate program in the same discipline can have different durations and credit requirements at different institutions. Refer to Appendix D for examples. There are no legal norms as to the minimum or maximum number of academic credits required for a certain profession. All programs in a given field lead to the same title that has equal academic and professional value.

Professional Registration and Licensing

Approximately 60 professions – including all of the ones described in this section – are regulated in Colombia and require graduates to obtain additional registration with the appropriate professional council (*consejo professional*), board (*junta*), or ministry (*ministerio*). In these cases, an academic title alone does not entitle the degree-holders to practice their profession. They must first be issued a certificate of professional registration (*certificado de matrícula profesional*) and a wallet-size professional license (*tarjeta profesional*), permitting them to exercise the profession. A sample certificate of professional registration is shown in the chapter on documentation. In order to obtain a professional license, applicants do not need to pass any additional examinations. The issuing of the license is simply a process through which degree-holders register their qualification with the appropriate body. The councils also deal with professional malpractice complaints and in extreme cases can revoke the license. Appendix F contains a more detailed list of regulated professions in Colombia, and Appendix G provides additional information on the licensing bodies for the professions described in this section.

Faculty Associations

In terms of curriculum design for the professional programs, the faculty associations fulfill a crucial role. Most of these associations have a decades-long history and bring together faculties providing higher education in a particular profession. Given the great autonomy of Colombian higher education institutions, the associations act as a forum for the individual faculties to exchange ideas and determine the core components of the curricula. The faculty associations also played an important consultative role in the design of the Examinations of Quality of Higher Education (*Exámenes de Calidad de la Educación Superior*), commonly referred to as ECAES and described towards the end of this chapter.

Public Accountancy (*Contaduría Pública*)

The profession of public accountant (*contador público*) is among the most popular ones in Colombia. In 2004, there were 76 faculties of public accountancy throughout the country. According to current SNIES statistics, there are about 250 undergraduate programs and several graduate-level specializations in accountancy. There are no master's or doctoral degrees offered in this area of study. The two faculty associations for this field are the Colombian Association of Faculties of Public Accountancy (*Asociación Colombiana de Facultades de Contaduría Pública*) and the newer Colombian Network of Faculties of Public Accountancy (*Red Colombiana de Facultades de Contaduría Pública*).

Training in related occupations is also available at the professional technical and technological levels. Institutions offering lower technical and vocational education, described in Chapter 5, can offer accountancy-related training as well.

Length of Program

For students admitted to an undergraduate degree program in accountancy based on the title of *bachiller*, the program normally takes 10 semesters of full-time study to finish, although theoretically some could be completed in 8 semesters. After the introduction of educational cycles in 2002, graduates from related technological programs require an additional 3-4 semesters of study to obtain an undergraduate degree.

Curriculum

Few of the courses that are part of undergraduate accountancy programs pertain to general academic knowledge. Most of the subjects focus on the following areas:

- mathematics and statistics,
- economics,
- management and organizations,
- conceptual foundations of accountancy,
- accounting and finances,
- control and auditing,
- legal regulations,
- communication and humanities.

Theoretical instruction in the above subjects is usually complemented by practica.

Exit Credentials

After completing an undergraduate program in accountancy, the academic title students graduate with is *Contador Público* or *Contadora Pública* (Public Accountant).

Business Administration
(*Administración de Empresas* or *Administración de Negocios*)

In 2004, there were 118 institutions of higher education that offered undergraduate programs in business administration. Presently, SNIES reports approximately 400 undergraduate programs, 200 graduate-level specialization programs, 25 master's programs, and 2 doctoral programs in various branches of business administration. The first program in this field was offered in 1960 by Universidad EAFIT, which became one of the most prestigious Colombian schools of business administration. The faculty association for this area of study is the Colombian Association of Faculties of Administration (*Asociación Colombiana de Facultades de Administración*).

Training in related occupations is also available at the professional technical and technological levels. Institutions offering lower technical and vocational education, described in Chapter 5, can offer administration-related training as well.

Length of Program

The vast majority of undergraduate programs in business administration require 10 semesters of full-time study to complete, but there are also some with a slightly shorter or longer duration. Many business administration students (approx. 40% in 2004) opt for nighttime programs (*jornada nocturna*), which give them the opportunity to work during the daytime while completing their degree. Nighttime programs normally have the same total duration as daytime programs. After the introduction of educational cycles in 2002, students admitted to undergraduate degree programs based on the title of *tecnólogo* in a related area require an additional 3-4 semesters of study to obtain an undergraduate degree.

Curriculum

The courses that constitute the curriculum for undergraduate programs in business administration fall into these areas:

- mathematics and statistics,
- economics (e.g., microeconomics, macroeconomics, political economics),
- management and organizations,
- finance (e.g., accounting, financial analysis, investments),
- production and operations (e.g., production management, logistics, quality assurance),
- trade and marketing,
- human resources management,
- technology,
- ethics, social responsibility, and law,
- communication and humanities.

Theoretical instruction in business administration subjects is usually complemented by a professional practicum that can last as long as 1-2 semesters.

<u>Exit Credentials</u>

The academic title awarded to students who complete an undergraduate program in business administration is generally *Administrador(a) de Empresas* or *Administrador(a) de Negocios* (both translating to Business Manager/Administrator).

Dentistry (*Odontología*)

Presently, there are 19 institutions of higher education that offer nearly 40 undergraduate programs and numerous graduate-level specializations in dentistry. There are currently no master's or doctoral programs in dentistry. The faculty association for this field is the Colombian Association of Faculties of Dentistry (*Asociación Colombiana de Facultades de Odontología*).

Training in dentistry-related occupations is also available at the professional technical and technological levels, even though the number of these programs is very limited. Technical and technological programs in dental prosthetics (*prótesis dental*) and dental mechanics (*mecánica dental*) are the most popular ones. Institutions offering lower technical and vocational education, described in Chapter 5, can offer dentistry-related training as well.

<u>Length of Program</u>

Most of the undergraduate programs in dentistry take 10 semesters of full-time study to complete. After the introduction of educational cycles in 2002, theoretically students can be admitted to undergraduate programs in dentistry based on the title of *tecnólogo* in a related area, in which case they would only require an additional 3-4 semesters of study to obtain an undergraduate degree. In practice, however, this happens very rarely.

<u>Curriculum</u>

Undergraduate dentistry courses focus primarily on these areas:

– basic sciences (e.g., biology, histology, anatomy, pathology, physiology),
– pharmacology and therapeutic treatment,
– public health,
– ethics and bioethics,
– rehabilitation,
– growth and development,
– peridontics,
– endodontics,
– orthodontics,
– oral surgery.

Theoretical lectures in the above subjects are complemented by laboratories and practica.

Upon completion of undergraduate studies in dentistry, students are awarded the title of *Odontólogo* or *Odontóloga* (Dentist). Prior to the 1980s, some universities would grant the title of *Doctor en Odontología* (Doctor in Dentistry) to those who completed an undergraduate program in dentistry. Currently, the degree of *doctor* is strictly a graduate-level title.

Engineering (*Ingeniería*)

According to current SNIES statistics on university-level engineering education, there are 1009 undergraduate programs, 106 graduate-level specialization programs, 66 master's programs, and 18 doctoral programs offered by various higher education institutions. The faculty association for this area of study is the Colombian Association of Faculties of Engineering (*Asociación Colombiana de Facultades de Ingeniería*). The branches of engineering most popular among Colombian students are as follows:

- aeronautical (*aeronáutica*),
- agricultural (*agrícola*),
- agroindustrial (*agroindustrial*),
- agronomic (*agronómica*),
- chemical (*química*),
- civil (*civil*),
- electrical (*eléctrica*),
- electromechanical (*electromecánica*),
- electronic (*electrónica*),
- environmental (*ambiental*),
- food (*de alimentos*),
- forestry (*forestal*),
- industrial (*industrial*),
- mechanical (*mecánica*),
- metallurgical (*metalúrgica*),
- naval (*naval*),
- nuclear (*nuclear*),
- fishing (*pesquera*),
- petroleum (*de petróleos*),
- systems (*de sistemas*),
- telecommunications (*de telecomunicaciones*),
- transport and roads (*de transporte y vías*).

Training in engineering technology is also available at the professional technical and technological levels. Institutions offering lower technical and vocational education, described in Chapter 5, can offer training related to engineering technology as well.

<u>Length of Program</u>

The majority of undergraduate engineering programs last 10 semesters of full-time study, but the duration can be somewhat longer or shorter. After the introduction of educational cycles in 2002, students admitted to undergraduate degree programs based on the title of *tecnólogo* in a related area require an additional 3-4 semesters of study to obtain an undergraduate degree.

<u>Curriculum</u>

Undergraduate engineering curricula are constructed around the following general areas, which are adapted accordingly to each of the branches:

  - basic sciences,
  - basic engineering sciences (i.e. theoretical foundations of engineering),
  - practical applications of engineering concepts,
  - problem solving,
  - planning, modeling, and design,
  - implementation,
  - evaluation,
  - project management.

Theoretical lectures in the above subjects are complemented by laboratories and practica.

<u>Exit Credentials</u>

The academic title awarded to students who complete an undergraduate program in engineering is *Ingeniero* or *Ingeniera* (Engineer) in a specific branch (e.g. *Ingeniero de Petróleos* or *Ingeniero Industrial*).

<center><u>Law (*Derecho*)</u></center>

Ever since the colonial times, law has been one of the traditional professions to be taught at Colombian universities. The faculty association for this area of study is the Colombian Association of Faculties of Law (*Asociación Colombiana de Facultades de Derecho*). The most recent SNIES statistics on university-level education in law report 183 undergraduate programs, 566 graduate-level specialization programs, 28 master's programs, and 5 doctoral programs offered throughout Colombia.

Training in related occupations is also available at the professional technical and technological levels. Institutions offering lower technical and vocational education, described in Chapter 5, can offer law-related training as well.

<u>Length of Program</u>

As a rule, undergraduate programs in law require 10 semesters of full-time study to complete. After the introduction of educational cycles in 2002, students admitted to

undergraduate degree programs based on the title of *tecnólogo* in a related area require an additional 3-4 semesters of study to obtain an undergraduate degree.

Curriculum

Undergraduate law courses focus on the following areas:

- general theory of law,
- constitutional law,
- administrative law,
- international law,
- occupational law,
- civil and family law,
- commercial law,
- penal law,
- professional responsibility,
- humanities (e.g., philosophy, political history, history of law, sociology).

Theoretical lectures in the above subjects are complemented by practica. In the last year of study, students are usually required to pass the so-called preparatory exams (*exámenes preparatorios*) that test their knowledge of various branches of law.

Exit Credentials

Undergraduate studies in law lead to the academic title of *Abogado* or *Abogada* (Lawyer). Prior to the 1980s, some universities would grant the title of *Doctor en Derecho* (Doctor in Law) to those who completed an undergraduate program in law. Currently, the degree of *doctor* is strictly a graduate-level title.

Medicine (*Medicina*)

Currently, Colombia has 53 faculties of medicine spread throughout the country. The faculty association for this field is the Colombian Association of Faculties of Medicine (*Asociación Colombiana de Facultades de Medicina*), which offers plenty of detailed information about Colombian medical schools and the programs they offer. The association also ensures that medical training in Colombia conforms to international standards.

Training in health-related occupations is also available at the professional technical and technological levels, even though the number of these programs is very limited. Institutions offering lower technical and vocational education, described in Chapter 5, offer training in assistant health occupations as well.

Length of Program

Students can be admitted to undergraduate programs in medicine only based on the title of *bachiller* since there are no technological programs in general medicine. The total length of

undergraduate medical programs is 12 semesters of full-time study. Following 10 semesters of theoretical instruction and clinical practica, medical students complete 2 semesters of rotation-based internship at a designated clinic or hospital.

Curriculum

The undergraduate medical curriculum is designed to provide students with general knowledge of the relevant sciences, medical disciplines, and methods of diagnosis and treatment. Individual courses during the initial 10 semesters of the program are structured around these areas:

- basic sciences (e.g., biochemistry, microbiology),
- children's health (paediatrics),
- women's health (including gynaecology and obstetrics),
- adults' health,
- seniors' health (geriatrics),
- family health,
- preventive medicine,
- general surgery,
- public health and environment,
- ethics and bioethics,
- legal-medical framework,
- administration and management.

Theoretical lectures in the above subjects are complemented by laboratories and clinical practica.

Semesters 11 and 12 consist of a clinical internship based on rotations in specialized areas such as emergencies, anaesthesia, orthopaedics, internal medicine, general surgery, paediatrics, gynaecology and obstetrics, etc. The internship is viewed as an integral part of the undergraduate program.

The knowledge and skills acquired through the theoretical instruction, clinical practica, and internships is designed to train general physicians and allows for very little specialization. However, numerous graduate-level specialization programs, similar to Canadian residency programs, are available. As an example, the Faculty of Medicine of the Universidad Colegio Mayor Nuestra Señora del Rosario reports that 92% of its students who graduate with a medical degree pursue a specialization. The university presently offers 26 specializations in all medical fields and 32 specializations in health administration. The most popular medical specializations in Colombia and their average durations are listed in Appendix E. Master's and doctoral degrees in medical fields are not common.

Exit Credentials

The academic title students are granted after completing their undergraduate studies in medicine can be expressed as

- *Médico* (Physician),

- *Médico General* (General Physician),
- *Médico Cirujano* (Physician Surgeon), or
- *Médico y Cirujano* (Physician and Surgeon).

All four titles are equivalent and are granted upon completion of similar programs of study. The feminine version of the title – *Médica* – does exist but is rarely used. Prior to the 1980s, some universities would grant the title of *Doctor en Medicina* (Doctor in Medicine) to those who completed an undergraduate program in medicine. Currently, the degree of *doctor* is strictly a graduate-level title.

Nursing (*Enfermería*)

According to current SNIES statistics on university-level nursing education, there are 55 undergraduate and 36 graduate-level specialization programs offered throughout Colombia. Master's and doctoral degrees in nursing are not common. As of 2007, only 4 master's and 1 doctoral programs were offered. The faculty association for this area of study is the [Colombian Association of Faculties of Nursing](#) (*Asociación Colombiana de Facultades de Enfermería*).

Training in nursing-related occupations is also available at the professional technical and technological levels, even though the number of these programs is very limited. Institutions offering lower technical and vocational education, described in Chapter 5, offer training in assistant health occupations as well.

Length of Program

Undergraduate nursing programs require 8-10 semesters of full-time study. After the introduction of educational cycles in 2002, theoretically students can be admitted to undergraduate programs in nursing based on the title of *tecnólogo* in a related area, in which case they would only require an additional 3-4 semesters of study to obtain an undergraduate degree. In practice, however, this happens very rarely.

Curriculum

The undergraduate nursing curriculum is composed of subjects from these areas:
- basic sciences (e.g., biology, microbiology and parasitology, biochemistry, morphophysiology, pharmacology and toxicology, pathology, anatomy),
- clinical sciences (e.g., internal medicine, general surgery, psychiatry, dermatology, ophthalmology, orthopaedics and traumatology)
- psycho-social and cultural aspects of health care,
- health care for children and adolescents,
- health care for women (including gynaecology and obstetrics),
- health care for adults and seniors,
- preventive medicine and public health,
- historical, legal, and ethical development of nursing,

- foundations of research and epidemiology,
- administration, management, and education (e.g., law, policies, programs).

Theoretical lectures in the above subjects are complemented by laboratories and practica.

Exit Credentials

The academic title students are granted upon completion of their undergraduate studies is *Enfermera* (Nurse, feminine form) or the less common *Enfermero* (Nurse, masculine form). Some universities may choose to use the title *Profesional en Enfermería* ('Professional' in Nursing) instead.

Physiotherapy (*Fisioterapia*)

The most frequently used name for physiotherapy in Spanish is *fisioterapia*, but it can also be referred to as *terapia física* (physical therapy). The first physiotherapy program in Colombia was developed in 1952 by the Escuela Colombiana de Rehabilitación. The most recent SNIES statistics on university-level education in physiotherapy report 34 undergraduate programs offered by various Colombian institutions of higher education. Even though there are several related graduate-level specialization programs, there are presently no programs in physiotherapy at the master's or doctoral level. The faculty association for this field is the Colombian Association of Faculties of Physiotherapy (*Asociación Colombiana de Facultades de Fisioterapia*).

Training in physiotherapy-related occupations is also available at the professional technical and technological levels, even though the number of these programs is very limited. Institutions offering lower technical and vocational education, described in Chapter 5, offer training in assistant health occupations as well.

Length of Program

The typical duration of an undergraduate program in physiotherapy is 8-10 semesters of full-time study. After the introduction of educational cycles in 2002, theoretically students can be admitted to undergraduate programs in physiotherapy based on the title of *tecnólogo* in a related area, in which case they would only require an additional 3-4 semesters of study to obtain an undergraduate degree. In practice, however, this happens very rarely.

Curriculum

The core of the undergraduate curriculum in physiotherapy focuses on the following areas:
- basic sciences (e.g., biology, biochemistry, biophysics, psychology, anatomy, physiology),
- health, movement, and functioning of the human body,
- sports and recreation,
- occupational health,

- research and education,
- administration and management.

Theoretical lectures in the above subjects are complemented by laboratories and practica.

Exit Credentials

Undergraduate studies in physiotherapy lead to the academic title of *Fisioterapeuta* or its less common version *Terapeuta Físico/a* (both translating to Physiotherapist).

Grading Scales and Academic Credits

Grading Scales

The grading scale for higher education has been relatively standardized and universally implemented by all types of Colombian postsecondary institutions for several decades.

Figure 4.9. Grading scale for higher education

Numerical grade	Description/Comments
4.60 – 5.00	Excellent; maximum grade
4.00 – 4.59	Very good
3.50 – 3.99	Good
3.00 – 3.49	Sufficient; lowest passing grade
0.00 – 2.99	Failing grade

To pass a course, students must obtain a minimum average of 3.00. Otherwise, they are required to take a make-up examination (*exámen de habilitación*), which will be indicated on their academic transcript.

Only a few institutions choose to use a different evaluation method. For instance, Universidad Católica de Colombia uses a 10-point scale, with 6 as the lowest passing grade. Universidad Pedagógica Nacional uses a 50-point scale, with 30 as the lowest passing grade.

Credit System

The coursework completed by students is measured according to the credit system introduced in 2003. One academic credit (*crédito académico*) is equal to 48 hours of academic work, consisting of 16 hours of lectures and 32 hours of independent study at the undergraduate and specialization levels. At the master's level, the 48 hours would correspond to 12 hours of lectures and 36 hours of independent study. For doctoral programs, the distribution of hours is determined by the nature of each program. In other

words, students are expected to follow up every hour of classroom instruction with additional 2-3 hours of independent work depending on the level.

Given the great autonomy Colombia's institutions of higher education enjoy, the total number of credits required for graduation varies between fields of study and institutions. It is not uncommon for a specific program to have different durations and credit requirements at different institutions. For examples, refer to Appendix D. All exit credentials have equal academic value regardless of the actual program duration or number of credits.

In the years 1980-2003, academic programs were measured in units of academic work (*unidades de labor académico*) or ULA. One ULA represented 1 hour of class time, supplemented by 2 hours of practical application and 3 hours of independent work under direct supervision. The total number of ULAs required for graduation differed by type of postsecondary education. Even though the ULA system was made obligatory in 1980, Colombian institutions were slow to implement it and many continued to use credit hours and number of years of study to describe programs.

Figure 4.10. Minimum number of ULAs required for graduation by program (1980-2003)

Program/Title	Number of ULAs
Técnico Profesional	1400
Tecnólogo	2100
Tecnólogo Especialista	900 (in addition to the 2100)
Profesional	3200
Especialista	600 (in addition to the 3200)
Magíster	800 (30% must be in research)
Doctor	800 (40% must be in research and independent work)

A recent Latin American initiative is working to develop a regional academic credits system (*Sistema de Créditos Académicos* or *SICA*) and a descriptive complement to the academic title (*Complemento al Título* or *CAT*) based on the European diploma supplement model. It is expected that both tools will eventually be adopted by the whole Latin American region.

Examinations and Exit Credentials

Examinations

Most students enrolled in the last year of their undergraduate program must take the national Examination of Quality of Higher Education (*Examen de Calidad de la Educación Superior*), commonly referred to as ECAES and administered by ICFES. It is important to point out that individual ECAES scores have no direct impact on whether or not a student

is awarded their degree. Graduation and the award of the academic title depend strictly on internal evaluations conducted by the institution of higher education.

The content of the ECAES differs depending on profession, but overall, the exam focuses on the basic competencies in each profession and consists of approximately 220 multiple-choice questions. (The exact number of questions can differ for certain professions; e.g. on the 2007 exams, engineers were given 180 questions, lawyers 230, and psychologists 245-260.) The exam is offered twice a year in all major cities.

The tests were originally developed by education authorities, primarily ICFES, in close consultation with the faculty associations, professional councils, and other stakeholders. In the process of designing the ECAES, similar exams conducted by foreign higher education authorities and licensing bodies were taken into consideration. The ECAES was administered for selected university programs in 2002 and became mandatory by 2003. The range of programs in which the examination was administered was gradually expanded to include even five non-university programs. In 2006, a total of 77,589 students from 55 programs took the examinations.[xxi]

Students can verify their ECAES scores through the ICFES website. A sample of the score summary is shown in the chapter on documentation. The ECAES scores are generally high at public national universities and some private elite universities. Overall, the exam represents another measure of quality assurance and state supervision over the higher education system. The primary objective of the tests is to assess the quality of programs rather than individuals. Still, students who obtain the highest ECAES scores in their field enjoy certain privileges such as priority in the award of various scholarships and funding for further studies. More information about ECAES is available on the ICFES website.

Exit Credentials

Depending on the level of study and the institution granting the title, students can be awarded one of the academic credentials shown in the figure below.

Figure 4.11. Academic titles that can be awarded by particular types of higher education institutions

Institution type	Titles the institution can award	English translation of the title
Professional technical institutions	*Técnico Profesional en...* *Técnico Profesional Especialista en...* **Tecnólogo en...* **Tecnólogo Especialista en...* **Profesional en...*	Professional Technician in… Specialist Professional Technician in… Technologist in… Specialist Technologist in… 'Professional' in…
Technological institutions	*Técnico Profesional en...* **Técnico Profesional Especialista en...* *Tecnólogo en...* *Tecnólogo Especialista en...* **Profesional en...*	Professional Technician in… Specialist Professional Technician in… Technologist in… Specialist Technologist in… 'Professional' in…
University institutions and technological schools	**Técnico Profesional en...* **Técnico Profesional Especialista en...* *Tecnólogo en...* **Tecnólogo Especialista en...* *Profesional en...* *Licenciado en...* *Maestro en...* *Especialista en...* **Magister en...* **Doctor en...*	Professional Technician in… Specialist Professional Technician in… Technologist in… Specialist Technologist in… 'Professional' in… Licentiate in… 'Master' in… Specialist in… Master in… Doctor in…
Universities	**Técnico Profesional en...* **Técnico Profesional Especialista en...* *Tecnólogo en...* **Tecnólogo Especialista en...* *Profesional en...* *Licenciado en...* *Maestro en...* *Especialista en...* *Magister en...* *Doctor en...*	Professional Technician in… Specialist Professional Technician in… Technologist in… Specialist Technologist in… 'Professional' in… Licentiate in… 'Master' in… Specialist in… Master in… Doctor in…

* Theoretically, these institutions are authorized to award the titles marked with an asterisk, provided that the institution and its programs meet certain criteria. In practice, however, this occurs very rarely.

It is important to note that on the actual diploma certificate, all higher education credentials (not only undergraduate degrees) can be preceded by phrases like the following:

- *título de…* (title of…),
- *diploma de…* (diploma of…),
- *grado de…* (degree of…).

Most of the titles listed in this chapter can also end in an *a* instead of an *o*, indicating that the recipient of the credential is female. For example, an undergraduate student in law would be awarded the title of *abogado* if the student were male and *abogada* if the student were female. Similarly, the feminine version of *tecnólogo* would be *tecnóloga*. In other instances, the *a* is added on, as is the case with the titles of *administrador* and *administradora*. Oftentimes, though, the masculine version of the title will be used even when it is being awarded a female.

The set of documents that students receive upon completion of higher education programs is the same as at the upper secondary level. It consists of a diploma stating the title obtained, a graduation record, and an academic transcript with the results for all semesters of study. The appearance and format of postsecondary documentation resemble those of upper secondary school credentials as well. Samples of higher education documents are shown and described in the chapter on documentation.

5. TECHNICAL AND VOCATIONAL EDUCATION

Overview

Technical and vocational programs in Colombia fall into one of two categories.

1. <u>Higher technical and vocational programs</u>: These programs are taught at the postsecondary level and have already been described in the chapter on higher education. They are part of formal education and lead to the titles of professional technician (*técnico profesional*) or technologist (*tecnólogo*).

2. <u>Lower technical and vocational programs</u>: The second kind of technical and vocational programs falls into the category of education for employment and human development (*educación para el trabajo y el desarrollo humano*), formerly known as non-formal education. This type of training leads to certificates, which are not considered equivalent to academic titles. Often referred to as *programas de formación laboral* (literally, vocational training programs), these lower technical and vocational programs will be the focus of this chapter.

Figure 5.1. Technical and vocational education in Colombia
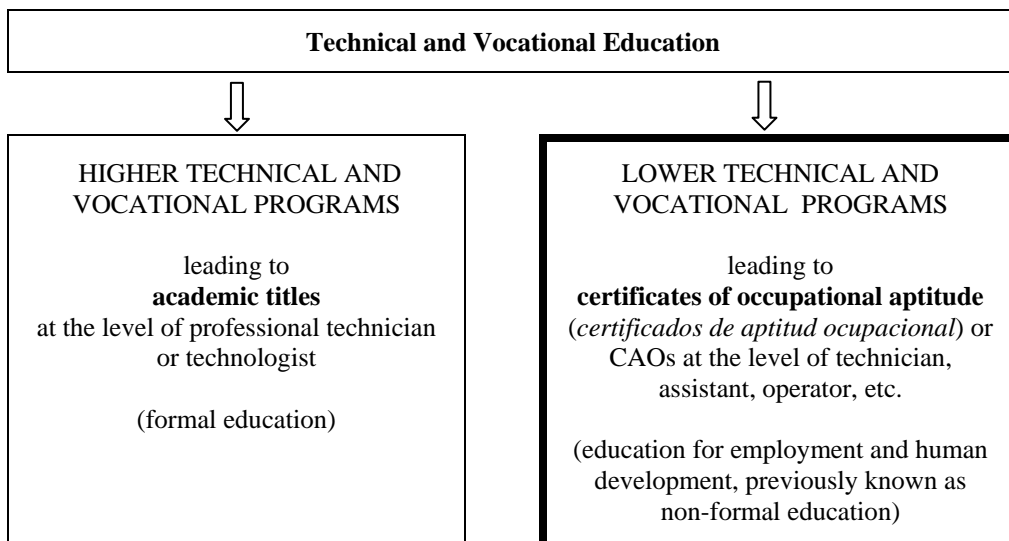
Administration

In the past, lower technical and vocational training programs were less strictly regulated than formal education. Nowadays, the Ministry of National Education, along with the Ministry of Social Protection and the National Apprenticeship Service (SENA) in particular, are working on developing a more detailed legislative framework for the lower technical and vocational programs.

The National Apprenticeship Service (*Servicio Nacional de Aprendizaje*) or SENA, a public organization that works in close cooperation with other relevant ministries and the private sector, is the main body in charge of policy development and delivering this type of education on the national level. For a detailed listing of the various bodies involved in education for employment and human development and their responsibilities, please refer to Appendix B.

Recognition of Institutions and Programs

Licensing of Institutions (compulsory)

The licensing and quality assurance procedures in the area of lower technical and vocational education are a slightly simplified version of the measures and processes employed in higher education.

Because they are founded and operated by the state, SENA training centres and other public institutions are automatically licensed to operate at the time of their establishment. All private institutions offering lower technical and vocational education must obtain an official license to operate (*licencia de funcionamiento*) prior to commencing any educational activities. The authorization is an administrative record (*acto administrativo*), issued to the institution by the departmental, district, or municipal Secretariat of Education (*Secretaría de Educación*).

Registration for all Programs (compulsory)

In addition to the institution itself, each lower technical and vocational program must be registered with the local Secretariat of Education as well. The registration (*registro*) is valid for 5 years and must be renewed thereafter.

Lower technical and vocational programs in assistant health professions, including programs in dental mechanics and cosmetology, require additional authorization of the National Executive Committee for Development of Human Resources in Health (*Comité Ejecutivo Nacional para el Desarrollo de los Recursos Humanos en Salud*), which is part of the Ministry of Social Protection and is represented regionally by the Secretariats of Health (*Secretarías de Salud*).

Certification of Programs (voluntary)

Currently, SENA is in the process of developing a System for Quality Education for Employment (*Sistema de Calidad de la Formación para el Trabajo*) or SCAFT that would serve as a mechanism for the development and assurance of the quality of lower technical and vocational education.

Apart from the obligatory authorization to operate and offer programs, institutions providing this type of education will have the option of obtaining a certification of quality (*certificación de calidad*), similar to the accreditation of programs and institutions of formal higher education. This type of certification will be voluntary and will be granted on a temporary basis. The certification process will consist of an external evaluation conducted by a qualified third party.

Types of Institutions

Institutions offering lower technical and vocational education can be either public or private. In Spanish, the actual name of these institutions will frequently include the words *centro* (centre), *instituto* (institute), *escuela* (school), *corporación* (corporation), or *fundación* (foundation).

Public

Most of the lower technical and vocational institutions, officially classified as centres of professional training (*centros de formación profesional*), are public and administered by SENA. As of 2007, SENA had 33 regional headquarters and 115 training centres throughout Colombia. Detailed information about the centres and listings of programs they offer can be found on [SENA's website](). All of these programs are developed in close consultation with the private sector and target regional needs. Since SENA is a public body, all training provided to its students is free of charge.

Private

The largest private institutions offering lower technical and vocational education are affiliated with the National Association of Entities of Education for Employment and Human Development (*Asociación Nacional de Entidades de Educación para el Trabajo y el Desarrollo Humano*). They are listed on the [association's website]() and include establishments such as [Instituto Colombiano de Aprendizaje]() (INCAP), [Academia Nacional de Aprendizaje](), and [Fundación CESDE](). All private institutions charge tuition fees.

Types of Programs and Qualifications

General Description

The primary aim of lower technical and vocational programs is to train and certify students in particular trades or skills.

Admission requirements vary by program and are determined by individual institutions. Normally, individuals entering lower technical and vocational education are required to have completed either elementary (Grade 5) or lower secondary (Grade 9) education. Certain programs may require the title of *bachiller* for admission.

The length of lower technical and vocational programs is generally expressed in hours. According to Colombian legislation, programs of this kind must last at least 600 hours, with a minimum of 50% of the time dedicated to practical training (*etapa productiva*, literally the productive stage), even if the program is taught through distance education. The remaining time is spent on specialized theoretical instruction (*etapa lectiva*, literally the lecture stage). The programs can be offered as daytime, evening, or distance education and can have a total duration of up to 3 years. Although it is not a widespread practice, some upper secondary schools may also allow their students to earn certain vocational designations concurrently with the *bachiller* title.

In terms of curriculum, lower technical and vocational programs frequently have the form of an apprenticeship, combining theoretical knowledge with hands-on training in the private sector. Most tend to focus on non-academic vocational training in various occupations in agriculture, office administration, business, computer technology, health care, teaching, and other fields. The skills acquired through these programs and the designations awarded after their completion must be consistent with the recently updated Colombian National Occupational Classification (*Clasificación Nacional de Ocupaciones*).

The exit qualification for lower technical and vocational programs is a certificate of occupational aptitude (*certificado de aptitud ocupacional*) or CAO, formerly referred to as certificate of professional aptitude (*certificado de aptitud profesional*) or CAP. There are several officially legislated types of CAOs. The most common type of CAO certifies the individual as a technician and is described in detail in the section on technical CAO programs. The second type of CAO is less commonly awarded and is granted to students upon completion of more academically-oriented upgrading programs. For a more detailed description of the latter type of CAO, refer to the section on academic upgrading and other programs in this chapter.

Technical CAO Programs

The vast majority of lower technical and vocational programs are offered by SENA as well as some private establishments. The institutions providing this type of training are spread throughout Colombia, thus making lower technical and vocational training more accessible to those residing in the rural areas.

Admission

Typically, individuals entering lower technical and vocational education are required to have completed lower secondary school (i.e. Grade 9). Certain programs may have lower or higher requirements.

The duration of the most common CAO programs leading to the qualification of *técnico* (technician) is between 1,000 and 1,800 hours.

Curriculum

Most technical CAO programs have the form of an apprenticeship, combining basic theoretical knowledge with hands-on training in the private sector.

Exit Qualifications

Prior to July 2007, the type of CAO leading to the qualification of *técnico* (technician) was called *Certificado de Técnico en xx* (Certificate of Technician in xx). Currently, the certificate is known as *Certificado de Técnico Laboral por Competencias en xx* (Certificate of Occupational Technician by Competencies in xx).

Figure 5.2. Sample names of technical CAO qualifications prior to and after July 2007

Sample names of technical CAO qualifications prior to July 2007	Sample names of technical CAO qualifications after July 2007
Técnico en Electrónica (Technician in Electronics)	*Técnico Laboral por Competencias en Electrónica* (Occupational Technician by Competencies in Electronics)
Técnico en Diseño de Modas (Technician in Fashion Design)	*Técnico Laboral por Competencias en Diseño de Modas* (Occupational Technician by Competencies in Fashion Design)
Técnico en Desarrollo de Multimedia (Technician in Multimedia Development)	*Técnico Laboral por Competencias en Desarrollo de Multimedia* (Occupational Technician by Competencies in Multimedia Development)
Técnico en Mercadotecnia, Publicidad y Ventas (Technician in Marketing, Publicity, Sales)	*Técnico Laboral por Competencias en Mercadotecnia, Publicidad y Ventas* (Occupational Technician by Competencies in Marketing, Publicity, Sales)
Técnico Operador de Maquinaria Pesada (Operator Technican of Heavy Machinery)	*Técnico Laboral por Competencias Operador de Maquinaria Pesada* (Operator Occupational Technician by Competencies of Heavy Machinery)

It is important to point out the difference between the qualification of *técnico* or *técnico laboral por competencias* and the academic title of *técnico profesional*. While the first two are names of lower technical and vocational qualifications (prior to and after July 2007), the title of *técnico profesional* applies only to graduates from programs of formal higher education.

All final examinations for CAO programs are administered internally by individual institutions. There are no state-administered tests in lower technical and vocational education.

Technical CAO holders generally enter the workforce directly and do not require any professional licensing or registration. CAOs obtained from duly authorized institutions can also be recognized by institutions of formal higher education, thus allowing individuals to continue their studies at the professional technical and technological levels.

CAO Programs in Health Professions

Lower technical and vocational programs in the assistant health occupations are more strictly regulated than the rest of lower technical and vocational education. For example, medical programs at this level must be reviewed and approved not only by a regional Secretariat of Education but also by a Secretariat of Health, both acting on behalf of the respective ministries. A listing of all programs in assistant health professions that have been authorized to operate (*programas con concepto favorable*) is available on the website of the Ministry of Social Protection. As of May 2006, there were 862 approved programs in 18 occupations operating throughout Colombia, with nursing assistant programs having the highest enrollments. Many of these programs are offered by schools attached to hospitals or clinics.

Admission

The admission requirement for all lower technical and vocational programs in assistant health occupations is typically completion of Grade 9 (i.e. lower secondary education).

Length of Program

The average length of these programs has always ranged from 1,000 to 1,800 hours. As of 2007, the duration has been fixed to 1600-1800 hours, spread over a period of no longer than 18 months.

Curriculum

The curricula for all lower technical and vocational programs have a strong practical orientation. For the assistant health professions, 40% of the training time is spent on theoretical instruction and 60% on rotation-based practica at hospitals or clinics.

Exit Qualifications

Upon completion of their training, graduates from assistant health programs are also awarded a certificate of occupational aptitude (*certificado de aptitud ocupacional*) or CAO. The exit qualifications in assistant health occupations are summarized in the table below.

Figure 5.3. Types of CAOs in assistant health professions

Names of qualifications/programs prior to 2005	Names of qualifications/programs after 2005
Auxiliar de Salud Familiar y Comunitario (Family and Community Health Assistant)	*Auxiliar en Enfermería* (Nursing Assistant)
Auxiliar de Laboratorio Clínico (Clinical Laboratory Assistant)	
Auxiliar de Urgencias Medicas (Emergency Medical Assistant)	
Auxiliar de Enfermería (Nursing Assistant)	
Auxiliar de Consultorio Odontológico (Dental Practice Assistant)	*Auxiliar en Salud Oral* (Oral Health Assistant)
Auxiliar de Salud Oral en Higiene Oral (Oral Health Assistant in Oral Hygene)	
Auxiliar de Administración (Administration Assistant)	*Auxiliar Administrativo en Salud* (Administrative Assistant in Health)
Auxiliar de Información (Information Assistant)	
Auxiliar de Droguería (Drugstore Assistant)	*Auxiliar en Servicios Farmacéuticos* (Pharmaceutical Services Assistant)
Promotor de Salud (Health Promoter)	*Auxiliar en Salud Pública* (Public Health Assistant)
Promotor de Atención al Ambiente (Environmental Awareness Promoter)	*Técnico en Saneamiento Ambiental* (Environmental Sanitation Technician)
Auxiliar de Imágenes Diagnosticas (Diagnostic Imaging Assistant)	*Técnico en Imágenes Diagnosticas* (Diagnostic Imaging Technician)
Auxiliar de Mecánica Dental (Dental Mechanics Assistant)	*Técnico en Mecánica Dental* (Dental Mechanics Technician)

All final examinations for CAO programs are administered internally by individual institutions. There are no state-administered tests in lower technical and vocational education.

Those who graduate with a CAO in an assistant health profession must have their certificate inscribed in a regional register at the local Secretariat of Health before they can start practicing their occupation. CAOs obtained from duly authorized institutions can also be recognized by institutions of formal higher education, thus allowing individuals to continue their studies at the professional technical and technological levels.

<u>Special Nomenclature for Programs Offered by SENA</u>

The nomenclature that SENA uses for its technical and vocational programs as well as the admission requirements can vary slightly from the general norm and are summarized in the table below. SENA-administered centres are also the only institutions providing lower technical and vocational training that are allowed to grant academic titles of professional technician and technologist. Samples of SENA credentials are shown and described in the chapter on documentation.

Figure 5.4. Types of titles and certificates awarded by SENA

Type of program	Type of title or certificate	Average program duration in hours	Competency level*	Typical admission requirement
Higher (formal education) technical and vocational programs**	Title of Technologist (*Tecnológo*)	2,800 – 3,520	3 – 4	Completion of Grade 11 (i.e. title of *bachiller*)
	Title of Professional Technician (*Técnico Profesional*)	2,000 – 2,640	2 – 3	Completion of Grade 9 or SENA CAO
Lower technical and vocational programs	SENA CAO as Technician (*Técnico*)	1,760 – 2,000	2	Completion of Grade 9
	SENA CAO as Qualified Worker (*Trabajador Calificado*), Assistant (*Auxiliar*), Operator (*Operario*), or Helper (*Ayudante*)	880 – 1,760	1 – 2	Completion of Grade 5

* Number 1 indicates the lowest and number 4 the highest level of competency within technical and vocational education. SENA does not provide any definitions of the levels.
** For a description of these programs, refer to the chapter on higher education.

<u>Academic Upgrading and Other Programs</u>

Institutions providing lower technical and vocational training sometimes offer non-formal academic education programs (*programas de formación académica*) as well. These programs can focus on a broad range of subjects such as foreign languages, sciences, mathematics, sports, technology, and arts. Some of these programs seek to prepare students for official validation of their skills and knowledge to correspond to academic credentials and levels of achievement in formal education. It is important to point out that even though these programs transmit academic knowledge, they do not automatically lead to academic titles. The certificate awarded to students upon completion of such programs is also a type of CAO. Formerly, there existed yet another type of CAO program specialized in

community development. The exact names of the certificates have changed slightly in 2007, as the table below shows.

Figure 5.5. Types of CAOs pertaining to academic upgrading and community development

Prior to July 2007	After July 2007
Certificado de Conocimientos Académicos (Certificate of Academic Knowledge) – awarded after completing an academic program with a minimum duration of 320 hours *Certificado para la Validación* (Certificate for Validation) – awarded after completing a program to validate levels, cycles, or grades to correspond to academic credentials and levels of achievement in formal education *Certificado en Promoción Comunitaria* (Certificate in Community Development) – awarded after completing a program in civic or community development with a minimum duration of 320 hours	*Certificado de Conocimientos Académicos* (Certificate of Academic Knowledge) – awarded after completing an academically oriented program with a minimum duration of 160 hours

Grading Scales and Academic Credits

SENA-administered centres use the following grading scale for their lower technical and vocational programs:

Figure 5.6. Grading scale used by SENA

Grade	Point equivalent	Comments
N or S	96 – 100	Maximum grade
A	84 – 95	
B	72 – 83	
C	60 – 71	
D	30 – 59	Lowest passing grade
E	0 – 29	Failing grade

Other institutions providing lower technical and vocational training normally use the same grading scale as institutions of higher education.

Figure 5.7. Grading scale commonly used for lower technical and vocational programs

Numerical grade	Descriptive grade
4.60 – 5.00	Excellent; maximum grade
4.00 – 4.59	Very good
3.50 – 3.99	Good
3.00 – 3.49	Sufficient; lowest passing grade
0.00 – 2.99	Failing grade

Lower technical and vocational institutions may also adopt the same system of academic credits as institutions of formal higher education to measure the work completed as part of a program. Many, however, will only specify the hourly intensity (*intensidad horaria* or *I.H.*) of a particular course or program component on the transcript.

Exit Qualifications and Documentation

Graduates from lower technical and vocational programs receive a certificate of occupational aptitude (*certificado de aptitud ocupacional*) or CAO stating the qualification being awarded and a transcript listing the results for all courses or modules of study. The nomenclature for the certificates has already been described in the sections above. The physical appearance of the documents is similar to postsecondary credentials but tends to be simpler. Samples of documentation pertaining to lower-level vocational and technical education are shown and described in the chapter on documentation.

6. TEACHER EDUCATION

Overview

Depending on the context, the Spanish term for the word *teacher* can vary. The most common variations are *maestro/a*, *normalista*, *docente*, *profesor(a)*, or *educador(a)*. Formal teacher education (*educación* or *formación docente*) was first established in Colombia after the nation achieved its independence in the 19th century and several teacher training schools (*escuelas normales*) were opened throughout the country. The founding of these schools marked the recognition of teaching as a profession that required formal education. Starting in the 1930s, teacher education gradually began to move into the universities as well. While the *escuelas normales* continued training preschool and elementary school teachers, in order to teach at the higher levels, students had to obtain at least an undergraduate degree in teaching.

Structure of Teacher Education

Prior to 1994, training for preschool and elementary teachers concluded with a *bachiller pedagógigo*, awarded after completion of upper secondary education. This type of program was offered primarily by teacher training schools (*escuelas normales*) and by duly authorized regular secondary schools. Teaching at secondary and postsecondary institutions required at least an undergraduate degree, preferably in education.

The reforms of 1994 initiated a process of restructuring of teacher education for preschool and elementary educators. In the following years, teacher training at regular secondary schools and the title of *bachiller pedagógico* were gradually phased out. Teacher training at the *escuelas normales* was extended by 2 years, the curricula were restructured, and the reformed schools were renamed to *escuelas normales superiores*. In order to become preschool or elementary school teachers, students now had to complete a postsecondary diploma cycle (*ciclo complementario*) following their baccalaureate. The structure of teacher training at the higher levels remained unchanged, but the duration of undergraduate degrees in education was fixed to a minimum of 10 semesters.

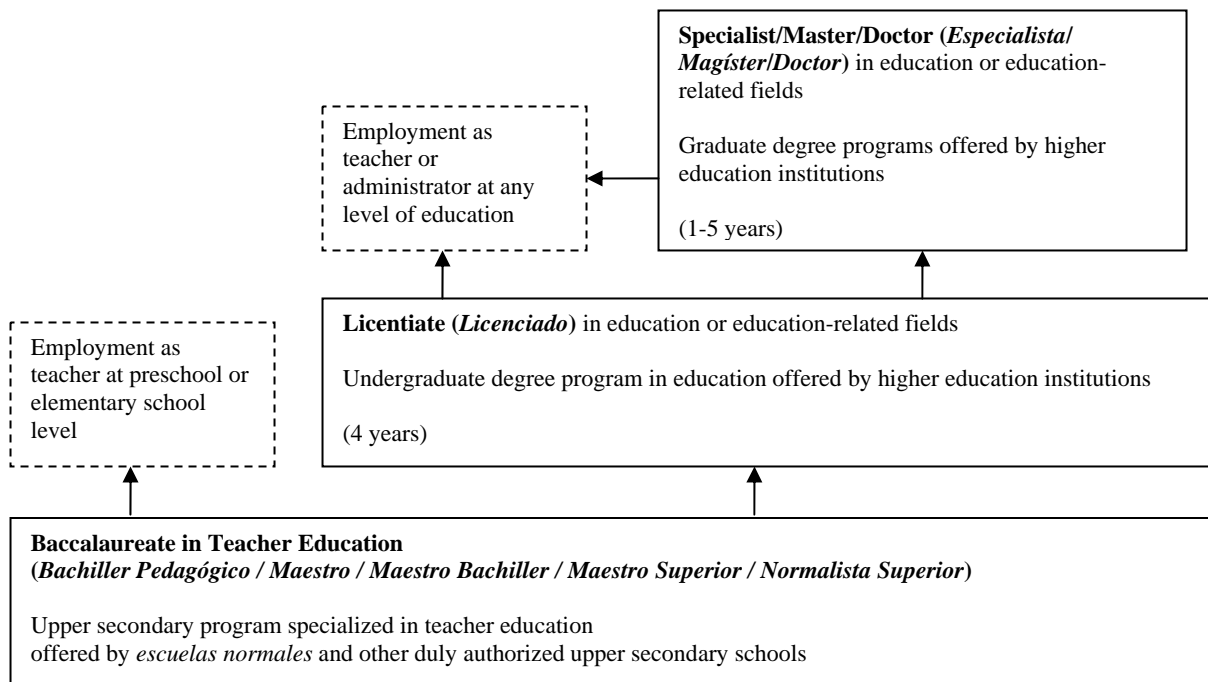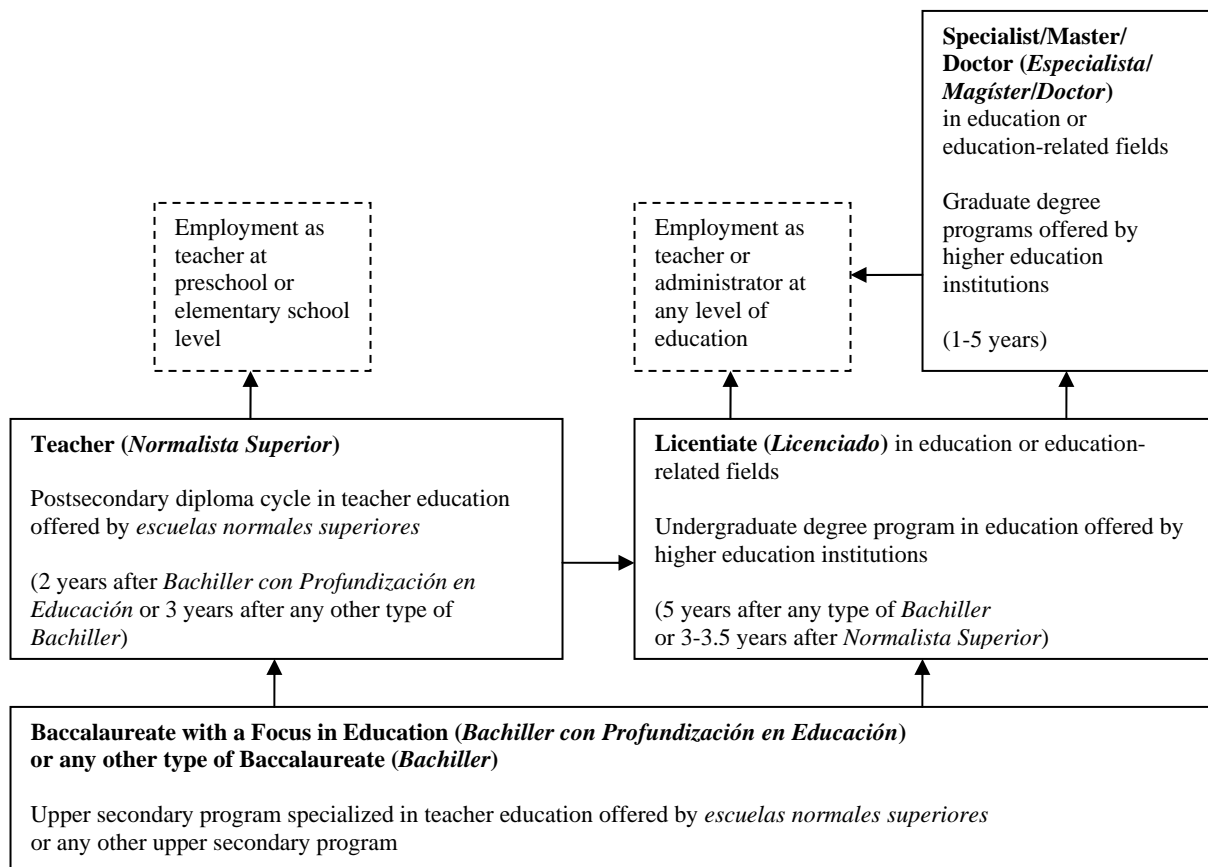**Figure 6.1. Structure of teacher education prior to the reforms of 1994**

Specialist/Master/Doctor (*Especialista/ Magíster/Doctor*) in education or education-related fields

Graduate degree programs offered by higher education institutions

(1-5 years)

Employment as teacher or administrator at any level of education

Employment as teacher at preschool or elementary school level

Licentiate (*Licenciado*) in education or education-related fields

Undergraduate degree program in education offered by higher education institutions

(4 years)

Baccalaureate in Teacher Education (*Bachiller Pedagógico / Maestro / Maestro Bachiller / Maestro Superior / Normalista Superior*)

Upper secondary program specialized in teacher education
offered by *escuelas normales* and other duly authorized upper secondary schools

Figure 6.2. Structure of teacher education following the reforms of 1994

Specialist/Master/ Doctor (*Especialista/ Magíster/Doctor*) in education or education-related fields

Graduate degree programs offered by higher education institutions

(1-5 years)

Employment as teacher at preschool or elementary school level

Employment as teacher or administrator at any level of education

Teacher (*Normalista Superior*)

Postsecondary diploma cycle in teacher education offered by *escuelas normales superiores*

(2 years after *Bachiller con Profundización en Educación* or 3 years after any other type of *Bachiller*)

Licentiate (*Licenciado*) in education or education-related fields

Undergraduate degree program in education offered by higher education institutions

(5 years after any type of *Bachiller* or 3-3.5 years after *Normalista Superior*)

Baccalaureate with a Focus in Education (*Bachiller con Profundización en Educación*) or any other type of Baccalaureate (*Bachiller*)

Upper secondary program specialized in teacher education offered by *escuelas normales superiores* or any other upper secondary program

Recognition of Programs and Institutions

Registration of Teacher Training Institutions and Programs (compulsory)

The General Law of Education of 1994 introduced the concept of a special kind of registration, called "previous accreditation" (*acreditación previa*), for all teacher training programs offered by the secondary-level teacher training schools (*escuelas normales*) as well as higher education institutions. This type of registration was a prerequisite for the continued operation of the programs. It required all teacher training institutions to undergo a detailed evaluation process and to restructure their curricula in accordance with guidelines set by the Ministry of National Education in the subsequent years.

By 1999, the Ministry of National Education reviewed over 200 teacher training schools, 138 of which had successfully implemented the reforms. The restructured schools now offered the postsecondary diploma cycle in teacher education and were renamed as *escuelas normales superiores*.

It is important to point out that even though accreditation of higher education programs is voluntary in Colombia, "previous accreditation" for teacher training programs was obligatory. A list of undergraduate and specialization programs in education that obtained "previous accreditation" can be found on the website of the National Council of Accreditation (*Consejo Nacional de Acreditación*) or CNA. In 2003, "previous accreditation" was replaced by the concept of qualified register (*registro calificado*), which now applies to all programs of higher education.

Accreditation of Programs and Institutions (voluntary)

For the *escuelas normales superiores*, the next step after obtaining registration was to seek "accreditation of quality and development" (*acreditación de calidad y desarrollo*) based on an internal and external evaluation. The process of accreditation for university-level programs and institutions (*acreditación de alta calidad* and *acreditación institucional*) that offer teacher training is the same as for all other postsecondary programs and institutions. For a detailed description, refer to the chapter on higher education.

Types of Institutions, Programs, and Qualifications
for Teachers at Different Levels of Education

Presently, training for preschool and elementary school teachers takes place at the *escuelas normales superiores*. Those wishing to teach at the secondary level or higher must hold at least an undergraduate degree, preferably in education. All of the teacher training programs are structured around four core areas:

- general pedagogical training,
- subject-specific pedagogical training,
- scientific and research training, and

– training related to social obligations, ethics, and moral values associated with the teaching profession.

Preschool and Elementary School Teachers

<u>Prior to mid-1990s</u>

Minimum credential required to teach at this level (all of the titles below have the same academic value and can be translated as 'teacher'):

– *maestro/a*,
– *maestro/a bachiller*,
– *maestro/a superior*,
– *normalista superior*, or
– *bachiller pedagógico.*

Institutions providing teacher training at this level:

– *escuelas normales* (teacher training schools),
– duly authorized secondary schools.

Prior to the reforms of 1994, completion of an upper secondary program specializing in teacher education (*bachillerato pedagógico*) entitled graduates to teach at the preschool and elementary levels of education. This type of program was offered by the *escuelas normales* and other secondary schools. The total duration of the program was the same as for other baccalaureate programs (2 years of upper secondary studies), but the minimum number of weekly hours of instruction was slightly higher (39 hours) in comparison with other upper secondary programs (30-35 hours). Upon completion, students graduated with one of the titles listed above. All of these titles were equivalent.

<u>After mid-1990s</u>

Minimum credential required to teach at this level:

– *normalista superior* (teacher).

Institutions providing teacher training at this level:

– *escuelas normales superiores* (teacher training schools).

Following the reforms of 1994, teacher training at regular secondary schools was gradually phased out and the title of *bachiller pedagógico*, along with its equivalents, was eliminated. Currently, the restructured teacher training schools (*escuelas normales superiores*) offer a similar program of study leading to a baccalaureate with a focus in education (*bachiller con profundización en educación*). However, the *bachiller con profundización en educación* no longer entitles graduates to teach independently at any level. All students wishing to become preschool or elementary school teachers must now complete a postsecondary diploma cycle in teacher education (*ciclo complementario*,

literally the complementary cycle). This program is offered only by the *escuelas normales superiores* and leads to the title of *normalista superior* (teacher).

Presently, out of the 138 *escuelas normales superiores* operating in Colombia, 128 are public and only 10 are private. Unlike institutions of higher education, these schools are spread uniformly throughout the country. In many rural and remote areas, they are the only institutions offering postsecondary education. Each *escuela normal superior* develops the postsecondary diploma cycle in one of the nine obligatory and fundamental areas of elementary education shown in Figure 3.3.

The postsecondary diploma cycle follows completion of upper secondary education (i.e. Grade 11). Most of the students entering the program will have completed a *bachiller con profundización en educación* at the same school and will require 4 semesters of additional study to complete the postsecondary diploma cycle. These semesters are sometimes referred to as Grades 12 and 13. Graduates from other types of *bachillerato* programs can be admitted to the postsecondary diploma cycle too, but they will have to complete 6 semesters of study. Sample curricula for *bachillerato con profundización en educación* and the postsecondary diploma cycle in teacher training are shown in Appendix H.

Graduates from the postsecondary diploma cycle can either enter the workforce as preschool or elementary school teachers or they can continue their education at the undergraduate level. All *escuelas normales superiores* have transfer of credit agreements with selected higher education institutions. Holders of the title of *normalista superior* will typically receive credit for 3-4 semesters of undergraduate study in their area of specialization. It is common for these transfer students to complete their undergraduate studies in the evenings while they work during the daytime. Still, the number of students who continue with undergraduate studies after completing the postsecondary diploma cycle is minimal.

The title of *normalista superior* is the minimum requirement to teach at the preschool and elementary school levels. Teachers who hold higher qualifications (e.g. a licentiate in preschool education) are automatically entitled to teach at these levels as well.

Lower and Upper Secondary School Teachers

Minimum credential required to teach at this level:

  – *licenciado/a* (licentiate, i.e. an undergraduate degree in education) or
  – any other type of undergraduate degree + 1 year of teacher training.

Institutions providing teacher training at this level:*

  – universities (*universidades*),
  – university institutions (*instituciones universitarias*), or
  – technological schools (*escuelas tecnológicas*).

* In rare instances, undergraduate programs in education can also be offered by professional technical institutions (*instituciones técnicas profesionales*) and technological institutions (*instituciones tecnológicas*).

According to the National System of Information of Higher Education (*Sistema Nacional de Información de Educación Superior*) or SNIES, currently there are 591 undergraduate degree programs in education (*licenciaturas*) offered throughout Colombia. In 2004, there were 70 faculties of education (*facultades de educación*) within various postsecondary institutions, 45 of which were private and 25 public. The two universities that specialize in teacher training are the [Universidad Pedagógica Nacional](#) (National Pedagogical University) and the [Universidad Pedagógica y Tecnológica de Colombia](#) (Pedagogical and Technological University of Colombia), but only the former is dedicated exclusively to teacher training.

The vast majority of students entering undergraduate programs in education are admitted based on the title of *bachiller académico* and a sufficient score on the ICFES State Examination for Admission to Higher Education. Apart from these requirements, applicants must generally pass an additional admission exam, a personal interview, and a test of pedagogical potential (*prueba de potencialidad pedagógica*) administered by the higher education institution.

Prior to mid-1990s, undergraduate degree programs in education (*licenciaturas*) typically lasted 4 years. Presently, they must have a minimum duration of 5 years. Evening programs and programs completed through distance education have a minimum duration of 6 years. Students admitted to an undergraduate program based on the title of *normalista superior* (awarded upon completion of the postsecondary diploma cycle) will typically receive credit for 3-4 semesters of undergraduate study in their area of specialization. For all programs, theoretical instruction is complemented by a teaching practicum (*práctica pedagógica*), giving students the opportunity to acquire experience as teaching assistants and practicing teachers at different educational institutions. The basic curricular structure of undergraduate programs in education is shown in Appendix I.

The academic title awarded to students who complete an undergraduate program in education is always *licenciado/a* (licentiate). Licentiates can be awarded in general areas of education like child pedagogy (e.g. *Licenciado en Pedagogía Infantil*) or in specific subjects like mathematics (e.g. *Licenciado en Matemáticas*). Often licentiates will also indicate an area of focus (*énfasis*) within a particular stream of education; for example, *Licenciado en Educación Básica con Énfasis en Humanidades y Lengua Castellana* (Licentiate in Basic Education with Focus on Humanities and Spanish Language).

Theoretically, an undergraduate degree in education entitles the holder to teach at any level of education, but many of the *licenciatura* programs are designed specifically to train secondary school teachers. Students may also continue their studies at the graduate level. Holders of undergraduate degrees in disciplines other than education may also teach in their area expertise provided that they supplement their education with at least one year of teacher training.

Postsecondary and University-Level Instructors

Minimum credential required to teach at this level:

- *licenciado/a* (licentiate, i.e. an undergraduate degree in education), preferably supplemented by some graduate studies, or
- any other type of undergraduate degree + 1 year of teacher training, preferably supplemented by some graduate studies.

Institutions providing teacher training at this level:

- universities (*universidades*),
- university institutions (*instituciones universitarias*), or
- technological schools (*escuelas tecnológicas*).*

* In rare instances, undergraduate programs in education can also be offered by professional technical institutions (*instituciones técnicas profesionales*) and technological institutions (*instituciones tecnológicas*).

In order to teach at the postsecondary level, instructors must possess at least an undergraduate degree in education (*licenciado*) or any other undergraduate degree supplemented by at least one year of teacher training. Universities will typically have higher requirements and will give preference to instructors who completed some graduate studies. Each higher education institution has the right to determine its own requirements for hiring and advancement.

As for graduate-level programs in education, according to the National System of Information of Higher Education (*Sistema Nacional de Información de Educación Superior*) or SNIES, there are several hundred specializations (*especializaciones*) available in addition to 69 master's (*maestrías*) and 12 doctoral programs (*doctorados*). The admission requirements and other regulations for graduate programs in teacher education are the same as for all other graduate programs. Specializations typically have a duration of 2-3 semesters. Master's programs last an average of 4 semesters, while doctoral programs tend to be 6 semesters long if taken after a master's degree and 10 semesters long if taken after an undergraduate degree. Students entering master's programs after completing a specialization will usually not be granted any transfer of credit.

According to statistics from 2000, only 2.2% of all higher education instructors held a doctorate and only 22.5% dedicated themselves full-time to teaching.[xxii] These statistics are not surprising given that the academics at Colombian universities are often successful professionals who lecture part-time in addition to practicing their professions.

Teacher Aids

Completion of teaching-related programs at the technical and vocational level has never entitled the graduates to exercise the teaching profession independently but rather has allowed them to work as support staff in education.

Higher technical and vocational programs for teacher aids were not common in the past and are extremely rare in the present. Most of the programs leading to the titles of professional technician and technologist in various areas of education were phased out in the 1990s. Training for teacher aids, particularly in preschool education, is still available at the level of lower technical and vocational education. Such programs typically require completion of Grade 9 for admission and last an average of 4 semesters. Students graduate with a certificate of occupational aptitude (*certificado de aptitud ocupacional*) awarding them the qualification of *Técnico en Auxiliar de Pre-Escolar* (Technician – Preschool Education Assistant). For more information on this type of programs, refer to the chapter on technical and vocational education.

Grading Scales and Academic Credits

Teacher training programs at the upper secondary and postsecondary diploma levels employ the same grading scales as all other secondary schools. Most undergraduate and graduate teacher training programs use the 5-point grading scale and the academic credit system typically employed by higher education institutions. The Universidad Pedagógica Nacional is an exception as it uses a 50-point scale, with 30 as the lowest passing grade. For a detailed description of the evaluation criteria, please refer to the chapter on grading scales.

Examinations, Exit Credentials, and Employment

Examinations

Students nearing completion of the postsecondary diploma cycle and most undergraduate programs in education must take the national Examination of Quality of Higher Education (*Examen de Calidad de la Educación Superior*), commonly referred to as ECAES. It is important to point out that individual ECAES scores have no direct impact on whether or not a student is awarded their degree. Graduation and the award of the academic title depend strictly on internal evaluations conducted by the institution of higher education. More information on the ECAES can be found in the chapter on higher education.

Exit Credentials

Educators must possess the educational requirements outlined in Figure 6.3 in order to teach independently at the different levels. Samples of documents pertaining to teacher education are described in the chapter on documentation.

Figure 6.3. Level of education required for educators in Colombia

Type of teachers	Level of education required	Institutions providing teacher education
Preschool and elementary school teachers	**Prior to mid-1990s** One of the following titles: – *bachiller pedagógico* – *maestro/a* – *maestro/a superior* – *maestro/a bachiller* – *normalista superior* All of the above titles represent completion of an upper secondary program with a specialization in teaching. (Any teaching credential higher than the ones listed above, e.g. *licenciado*, would have entitled the individual to teach at these levels of education as well.)	*Escuelas normales* and duly authorized upper secondary schools
	After mid-1990s Title of *normalista superior* The above title represents completion of a 2-year postsecondary diploma cycle in teacher education, following graduation from an upper secondary program with the title of *bachiller con profundización en educación*. For those holding any other type of *bachiller*, the postsecondary diploma cycle lasts 3 years. (Any teaching credential higher than the one listed above, e.g. *licenciado*, entitles the individual to teach at these levels of education as well.)	*Escuelas normales superiores*
Lower and upper secondary school teachers	Title of *licenciado/a* or any other type of undergraduate degree + 1 year of teacher training Prior to mid-1990s, undergraduate degree programs in education (*licenciaturas*) typically lasted 4 years. Currently, they must have a minimum duration of 5 years.	Institutions of higher education (typically universities) with a duly licensed faculty of education
Higher education instructors	Same as for lower and upper secondary school teachers, preferably supplemented by some graduate studies (e.g. a graduate-level specialization).	

<u>Professional Registration and Employment</u>

In order to teach at a public institution, an instructor must first be inscribed in the *escalafón docente* (teachers' echelon). The current *escalafón*, introduced in 2002, consists of three grades, each further subdivided into four salary levels. Teachers are inscribed into the *escalafón* according to their level of education and are promoted based on their experience, performance, and further professional development. In 2006, a teacher who had reached the highest grade and salary level within the ranking earned COL$ 1,938,000 or approximately CAN$ 1,055 per month, an amount equivalent to approximately 5 times the minimum monthly salary in Colombia at the time.[xxiii] There are additional bonuses for teachers working in rural and remote areas of the country.

Instructors employed at private institutions must possess the same educational credentials but do not have to be inscribed in the teachers' echelon. They must be paid a minimum of 80% of the monthly salary established for state teachers, or 80% of the corresponding hourly wages.

7. GRADING SCALES

School Education

Several grading scales have been used in Colombian school education in recent years. The terminology for evaluation is set by the Ministry of National Education, but the exact criteria are determined by individual schools. In other words, the point and percentage equivalents in the figures below should be viewed as approximate values. It is also important to keep in mind that the maximum grade indicates superior performance and is awarded to students who exceed most of the performance expectations. Grades above 9.0 on the 10-point scale are hence rarely attained.

Figure 7.1. Grading scales for elementary, lower secondary, and upper secondary education

a) 2002 – present

Spanish descriptor	English descriptor	Approximate point and percentage equivalent	Comments	IQAS comparison
Excelente (E)	Excellent	9.0 – 10.0 or 90% – 100%	Maximum grade	89% – 100%
Sobresaliente (S)	Outstanding	8.0 – 8.9 or 80% – 89%		76% – 88%
Aceptable (A)	Acceptable	7.0 – 7.9 or 70% – 79%		63% – 75%
		6.0 – 6.9 or 60% – 69%	Minimum pass	50% – 62%
Insuficiente (I)	Insufficient	4.0 – 5.9 or 40% – 59%	Failing grade	Fail
Deficiente (D)	Deficient	0.0 – 3.9 or 0% – 39%		

b) 1994 – 2002

Spanish descriptor	English descriptor	Approximate point and percentage equivalent	Comments	IQAS comparison
Excelente (E)	Excellent	9.0 – 10.0 or 90% – 100%	Maximum grade	89% – 100%
		8.0 – 8.9 or 80% – 89%		76% – 88%
Bien/Bueno (B)	Good	7.0 – 7.9 or 70% – 79%		63% – 75%
		6.0 – 6.9 or 60% – 69%	Minimum pass	50% – 62%
Insuficiente (I)	Insufficient	0.0 – 5.9 or 0% – 59%	Failing grade	Fail

Figure 7.2. Older grading scales for lower and upper secondary education

a) 1974 – 1994

Grade	Alternative point equivalent*	Comments	IQAS comparison
9.5 – 10.0	95 – 100	Maximum grade	90% – 100%
8.5 – 9.4	85 – 94	Indicates excellent performance	77% – 89%
7.5 – 8.4	75 – 84	Indicates good performance	64% – 76%
6.0 – 7.4	60 – 74	Minimum pass	50% – 63%
0.0 – 5.9	0 – 59	Failing grade	Fail

* The 100-point scale gained popularity after 1978, but it was never universally adopted by all schools.

b) 1934 – 1974

Grade	Spanish descriptor	English descriptor	Comments	IQAS comparison
5	*Muy bien*	Very good	Maximum grade	90% – 100%
4.0 – 4.9	*Bien*	Good		70% – 89%
3.0 – 3.9	*Regular*	Regular	Minimum pass	50% – 69%
2.0 – 2.9	*Mal*	Bad	Failing grade	Fail
0.0 – 1.9	*Muy mal*	Very bad		

Higher Education

The grading scale for all types of higher education has been relatively standardized and universally implemented by all types of Colombian postsecondary institutions for several decades.

Figure 7.3. Grading scale for higher education

Numerical grade	Descriptor / Comments	IQAS comparison
4.60 – 5.00	Excellent; maximum grade	90% – 100%
4.00 – 4.59	Very good	78% – 89%
3.50 – 3.99	Good	66% – 77%
3.00 – 3.49	Sufficient; minimum pass	50% – 65%
0.00 – 2.99	Failing grade	Fail

Only a few institutions choose to use a different evaluation method. For instance, Universidad Católica de Colombia uses a 10-point scale, with 6 as the lowest passing grade. Universidad Pedagógica Nacional uses a 50-point scale, with 30 as the lowest passing grade.

Technical and Vocational Education

Institutions providing lower technical and vocational education normally use the same grading scale as institutions of higher education. For details, refer to Figure 7.3 above. The National Apprenticeship Service (*Servicio Nacional de Aprendizaje*) or SENA uses a different scale for its lower technical and vocational programs, as shown below.

Figure 7.4. Grading scale used by SENA

Grade	Point equivalent	Comments
N or S	96 – 100	Maximum grade
A	84 – 95	
B	72 – 83	
C	60 – 71	
D	30 – 59	Minimum pass
E	0 – 29	Failing grade

8. DOCUMENTATION

Preschool, Elementary, and Lower Secondary Education

There are no specific exit credentials associated with completing preschool since evaluation at this level is expressed as qualitative progress reports.

Upon successful completion of elementary school, students may receive the Certificate of Completion of the Fifth Grade of Elementary Instruction (*Certificado al Quinto Grado de Enseñanza Primaria*), but in most cases they will only receive a transcript of all the courses completed and the grades obtained.

Students who complete lower secondary education (i.e. Grade 9) and plan to continue their education at the upper secondary level will usually proceed automatically to Grade 10, without being awarded a certificate. Some schools, however, may award the Certificate of Basic Secondary School Studies (*Certificado de Estudios del Bachillerato Básico*), which can also be called Certificate of Completion of Studies of Basic Education (*Certificado de Término de Estudios de Educación Básica*) and which was formerly known as the Certificate of Completion of the Basic Cycle of Middle Instruction (*Certificado de Aprobación del Ciclo Básico de Enseñanza Media*).

Upper Secondary Education

Successful completion of upper secondary education leads to the title of *bachiller* in a specific area. In terms of documentation, upper secondary graduates receive a diploma, usually accompanied by a graduation record and a transcript, all issued by the school.

Diploma

The Colombian baccalaureate diploma (*diploma de bachiller*) tends to be a larger document printed on parchment or thicker paper. The text is always in Spanish.

The diploma will generally contain the following elements, marked with the corresponding numbers on the images of sample documents (Figures 8.1 through 8.4):

1. **National and institutional names and symbols**: The diplomas are issued by the school in the name of the republic; hence, the phrase "*La República de Colombia y en su nombre* + name of school" will often appear on top of the credential along with the Colombian coat of arms. The symbol of the school or the national coat of arms may also be incorporated into the document as a background image.
2. **Authorization**: Under the school name, there will always be a reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) authorizing the school to operate and grant titles.

3. **Student's name and identification**: Students from Spanish-speaking countries usually have a first name, a middle name, a paternal surname, and a maternal surname. Along with the student's names, the number of their identification document and the city where it was issued will always appear on the credential. For those below the age of 18, the main identification document is the *Tarjeta de Identidad* (identity card), abbreviated as *T.I.* For those 18 years and older, it is the *Cédula de Ciudadanía* (citizenship card), abbreviated as *C.C.*

4. **Program information and title**: The diploma will clearly state the level (*nivel*) of education completed by the student and the title (*título*) being awarded along with the specialization (*modalidad*).

5. **Diploma number and inscription reference**: All diplomas are registered (*anotado* or *registrado*) in the school records. The number of the book (*libro*) and the folio (*folio*) where the diploma was inscribed will appear towards the bottom of the document. Each diploma typically has its own individual number (*diploma no.* or simply *no.*) stated on the document. If the diploma is a duplicate (*duplicado*), this fact will be indicated as well.

6. **Signatures**: The diploma should be signed by the school principal (*rector*) and the secretary (*secretario*) or administrative director (*subdirector administrativo*). The ink stamps and identification numbers of the signatories may appear on the document too.

7. **Place and date of issue**.

Figure 8.1. Academic baccalaureate diploma – *Bachiller Académico* (2002)

La República de Colombia

El Colegio

Francisco Molina Sánchez

De Valledupar - (Cesar)

Aprobado por la Secretaría de Educación y Cultura del Departamento del Cesar
Según Resolución de Aprobación No. 3012 del 20 de Noviembre del 2002

En atención a que:

Identificado con C.C. No.   De   Valledupar (Cesar)

Por razón de haber cursado y aprobado los Estudios correspondientes al Nivel
de Educación Media Académica según los Planes de Estudios.

Le Otorga:

En nombre de la República de Colombia

El Título de Bachiller Académico

Este Diploma no requiere de registro en la Secretaría de Educación, decreto nacional 921 de 1994

anotado en el control interno del Plantel Libro No. 04   Folio 3·   Diploma No. 120 .

Dado en Valledupar a los 07   del mes de Diciembre   del año 2002

EDUCACION
TRIUNFO

VALLEDUPAR
CESAR
EDUCACION PARA EL TRABAJO

C O L F R A M S

Rector (a)   Secretario (a)

100

Figure 8.2. Baccalaureate diploma in social service – *Bachiller en Promoción Social*,
issued by an INEM (1983)

Figure 8.3. Baccalaureate diploma in teacher education – *Maestra Bachiller* **(1987/8)**

Figure 8.4. Baccalaureate diploma in teacher education –*Bachiller Pedagógico* (1987/8)

<u>Graduation Record</u>

The graduation record (*acta de grado*/ *acta de graduación*/ *acta individual de graduación*) is a separate document confirming the fact that the student has graduated from upper secondary education and was awarded the title of *bachiller*. The diploma and the graduation record are viewed in Colombia as having equal academic value.

The format of a graduation record from upper secondary school resembles a letter and normally contains the following elements, marked with the corresponding numbers on the sample document (Figure 8.5):

1. **Name and symbol of the educational institution**.
2. **Institutional information**: Information about the legal status of the school, the specific titles the school is authorized to award, and a reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) with regard to the above points will be addressed in the first part.
3. **Graduation record number**: Graduation records may or may not be numbered. (This information does not appear in the sample document in Figure 8.5.)
4. **Student's name and identification**.
5. **Level of education completed**.
6. **Inscription reference**: Since all graduating students are registered in the school's administrative records, the book (*libro*) and the folio (*folio*) where they were inscribed will be mentioned on the document.
7. **Signatures**: The record should be signed by the school principal (*rector*) or director (*director*) and the secretary (*secretario*). Ink stamps of the signatories may also appear along with the numbers of their identification documents.
8. **Place and date of issue**.

**Figure 8.5. Graduation record for a baccalaureate diploma
(issued in 2003 for the title awarded in 1983)**

Note: The corresponding diploma is shown in Figure 8.2.

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Transcript

The quality of Colombian transcripts (*certificado de calificaciones*/ *certificado de notas*/ *certificado de resultados*/ *certificado de estudio*) can vary greatly. Most often secondary school transcripts are not as sophisticated as university transcripts. The technology used to produce the former ranges from all types of computer printers to simple typewriters. The transcripts can include grades for all years of secondary study or can be issued on a yearly basis.

All secondary school transcripts share these characteristics, marked with the corresponding numbers on the images of sample documents (Figures 8.6 and 8.7):

1. **Name and symbol of the educational institution**.
2. **Authorization**: A reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) authorizing the school to operate and grant titles may or may not appear on the transcript.
3. **Transcript number**: The transcripts may or may not be numbered. The transcript number can also be referred to as certificate number (*certificado no.*).
4. **Student's name and identification**.
5. **Program information and level of education completed**: The transcript will clearly state the grade (*grado*) and/or level of education completed by the student.
6. **Subjects, hours, and grades**: All the subjects (*asignaturas*) taken within the period specified on the transcript should be listed along with the number of hours of instruction per week (*intensidad horaria, I.H.*/ *horas semanales, H.S.*/ *intensidad horaria semanal, I.H.S.*). The final grades (*notas*/ *evaluación*/ *valoración*/ *calificaciones*/ *resultados*) for each subject will be indicated either as descriptive grades (e.g. *aceptable*) or as numbers with the numerical value written out in words as well (e.g. *6.5/seis cinco*). Comments about the student's behaviour (*comportamiento*) and other observations (*observaciones*) can be included on transcripts too.
7. **Signatures**: The transcript should be signed by at least one person: the school principal (*rector*), the secretary (*secretario*), or both. Ink stamps of the signatories may also appear.
8. **Place and date of issue**.

Figure 8.6. Transcript for Grade 11, showing only descriptive grades (2002)

Note: The corresponding diploma is shown in Figure 8.1.

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Figure 8.7. Transcript for Grade 11, showing only numerical grades (issued in 2003 for studies completed in 1983)

Note: The corresponding diploma is shown in Figure 8.2.

INSTITUCIÓN EDUCATIVA "MANUEL MURILLO TORO"
INEM - IBAGUE

1.

3. CERETIFICADO No.   1.152

2. El Rector de la Institución Educativa "Manuel Murillo Toro" INEM-Ibagué, con aprobación de estudios de Educación Básica secundaria y Media Vocacional mediante Resolución No. 5930 del 24 de mayo de 1984, con reconocimiento oficial para estudios de Pre- escolar, Básica y Media según Resolución No. 1228 del 3 de octubre de 2002, con Registro de la Secretaría de Educación No. 131006 y 131007

Registro del DANE 173001001053

CERTIFICA:

Que: _____ identificado(a) con _____ **4.**
No. _____ de _____ cursó en este
instituto en___ 1.983 _____ el grado   UNDECIMO   correspondientes al ciclo de
5. Educación Básica Secundaria Área _____ Modalidad _____
Con las siguientes calificaciones e intensidad horaria.

4.

ASIGNATURAS NÚCLEO COMUN	I.H.S.	UNDÉCIMO	
Español y Literatura	3	SIETÉ OCHO	(7.8)
Idioma Extranjero (Ingles)	2	SEIS CINCO	(6.5)
Ciencias Sociales	2	SIETE TRES	(7.3)
Filosofía	2	SIETE SEIS	(7.6)
Matemática	3	SIETE DOS	(7.2)
Física	x	x x x x x x	(x x)
Ciencias	x	x x x x x x	(x x)
Química	3	SIETE CINCO	(7.5)
Educación Religiosa y Moral	2	SIETE OCHO	(7.8)
Educación Estética	x	x x x x x	(x x)
Educ. Física Recreación y Deportes	2	SEIS NUEVE	(6.9)

ASIGNATURAS DE EDUCACIÓN OCUPACIONAL:

EDUCACION PARA LA SALUD	5	SIETE CINCO	(7.5)
EDUC FUNCIONAL DE ADULTOS	3	OCHO SEIS	(8.6)
PRACTICAS DE CAMPO	8	SIETE CINCO	(7.5)
x x x x x x x x x		x x x x x x	(x x)
x x x x x x x x x x x		x x x x x	(x x)

6.

COMPORTAMIENTO   BUENO

OBSERVACIONES: _ PROMOVIDA BACHILLER. x x x x x x x x x x x x x x x x x

x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x

x x x x x x x x x x x x   x x x x x x x x x x x x x x x x x x x x x x x x

Se expide el presente certificado en Ibagué, el _____ SEIS   (6   ) de

8. OCTUBRE. x x x ___ De __ DOSMIL TRES _____ (2003   ).

El Rector.

7. OSCAR WILLIAM BRAVO MONR
        C.C.   de Ibag

Diploma Registry

In the years 1981-1994, students were required to have their *bachiller* diplomas inscribed in a national registry maintained by the local Secretariats of Education (*Secretarías de Educación*). Without registration, the *bachiller* title was considered invalid. The process entailed first having the signatures on the credentials authenticated by a notary public and then having the documents inspected by a representative of the Secretariat of Education and inscribed into the secretariat's books. This is the reason for the numerous stamps and signatures that often appear on the reverse side of Colombian secondary school diplomas and graduation records. A sample of the reverse side of a *bachiller* diploma is shown below, followed by enlarged images and descriptions of all the stamps and signatures.
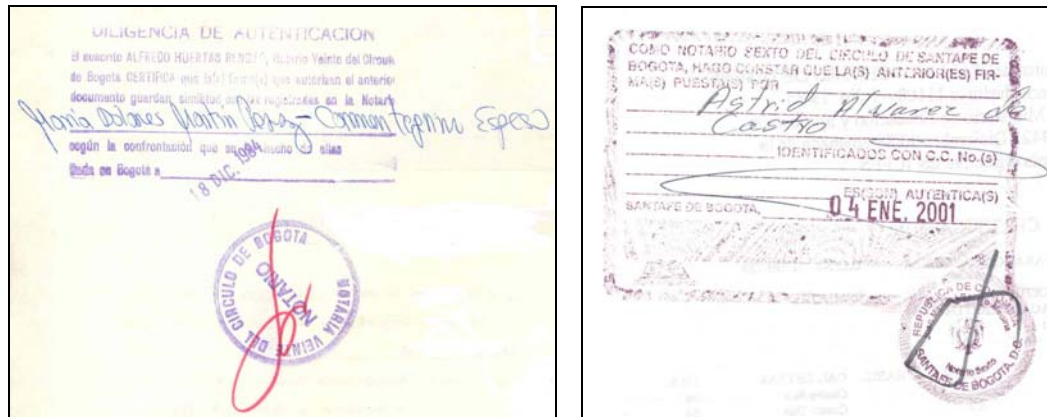
Figure 8.8. Reverse side of a *bachiller* diploma
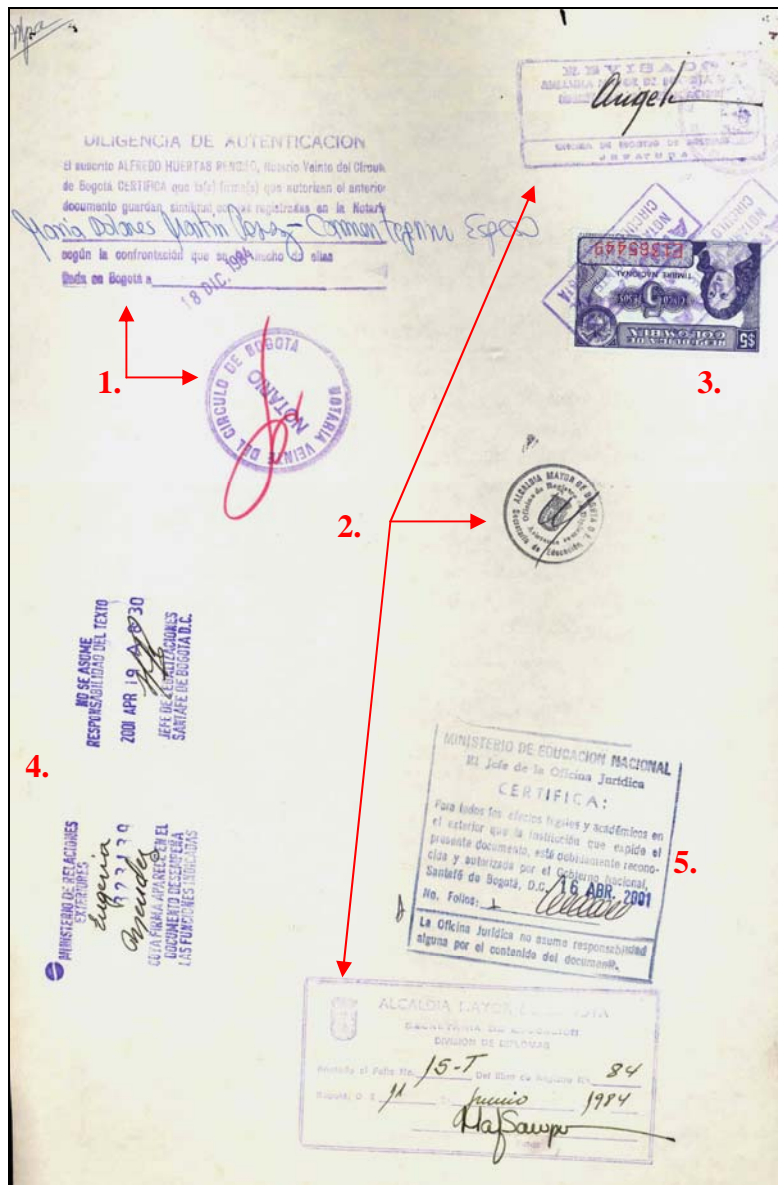
The following stamps and signatures, marked with corresponding numbers in Figure 8.6 above, will frequently appear on the reverse side of *bachiller* diplomas:

1. Ink stamps and signature of the notary.

Figure 8.9. Notarial stamps

2. Ink stamps and signatures of representatives of the Secretariat of Education.

Figure 8.10. Stamp and signature of a representative from the Office of the Diploma Registry of the Secretariat of Education of the Municipality of Bogotá
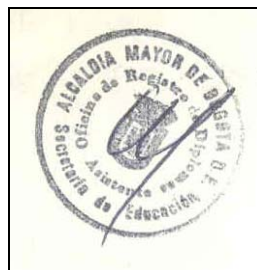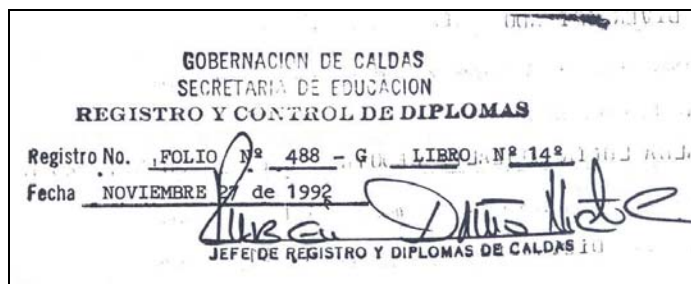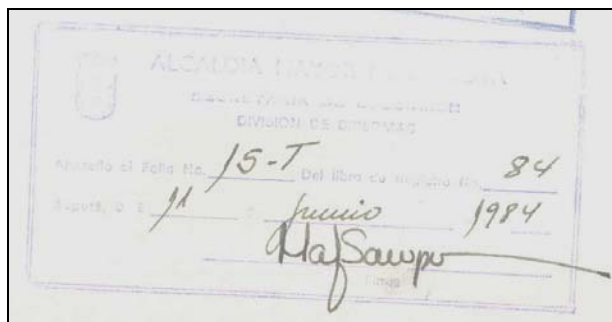

Figure 8.11. Stamp and signature confirming that the document was inspected by the Office of the Diploma Registry

Figure 8.12. Stamps of two different Secretariats of Education with signatures confirming the inscription of the diploma in a specific book and folio

3. Adhesive stamps indicating payment of fees for issuing of the diploma and its registration (may appear on some credentials). These stamps are different from regular postage stamps. Postage stamps do not have serial numbers (e.g. B8268134).

Figure 8.13. Adhesive fee stamps

<u>Legalization</u>

Students who intend to use their academic credentials abroad will in most cases have their documents authenticated by a notary public and legalized by these ministries:

4. The Ministry of Exterior Relations (*Ministerio de Relaciones Exteriores*) and/or

**Figure 8.14. Legalization stamp of the Ministry of Exterior Relations
with the signature of a ministry official**
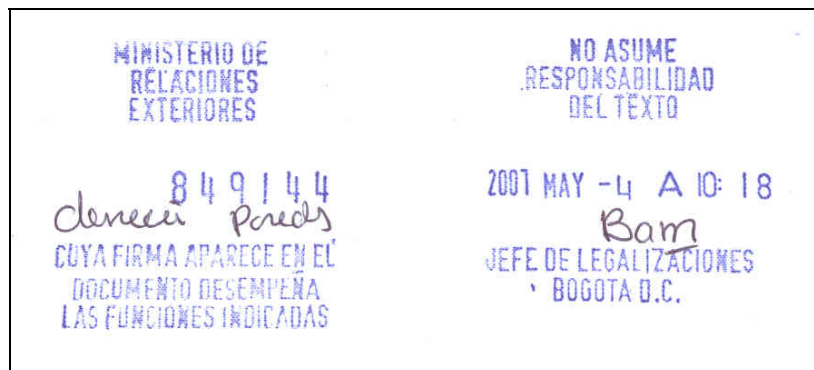
5. The Ministry of National Education (*Ministerio de Educación Nacional*).

**Figure 8.15. Authentication stamp of the Ministry of National Education
with the signature of a ministry official**

Alternatively, Colombian educational credentials may also bear an *apostille*, which is a stamp resembling a sticker. The *apostille* confirms the legalization of a document for international use under the terms of the 1961 Hague Convention Abolishing the Requirement of Legalization for Foreign Public Documents. Documents certified with an *apostille* are accepted for legal use in all nations that have signed the convention. In Colombia, the *apostilles* are issued exclusively by the Ministry of Exterior Relations and can be verified on the [ministry's website](#).

Figure 8.16. The *apostille* – formerly used color format (January 2001 – October 2007) and current black-and-white format
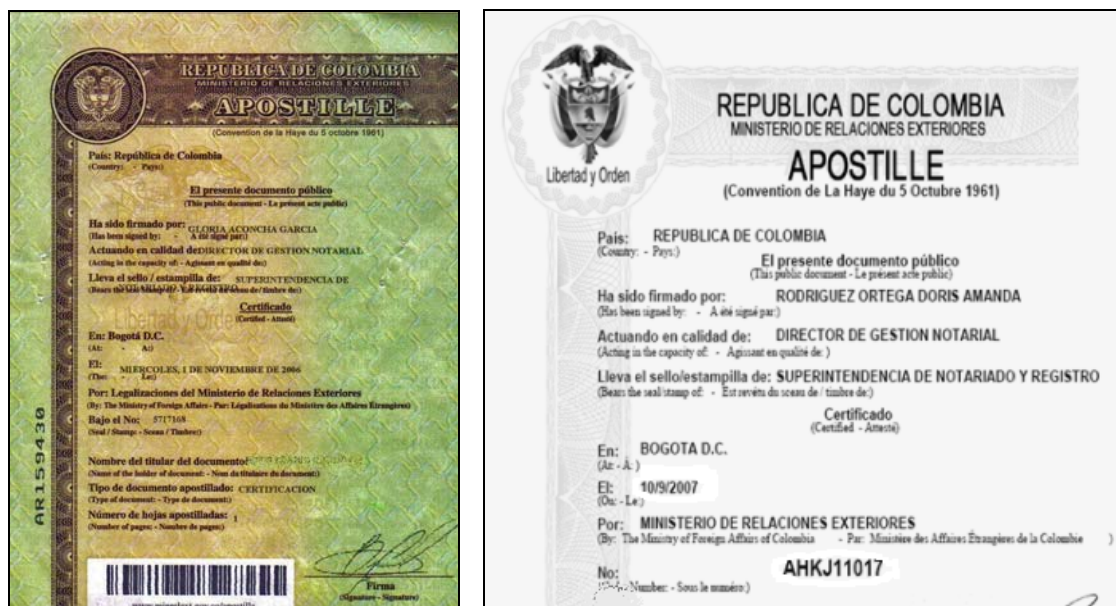
State Examination for Admission to Higher Education

Upon completion of upper secondary school, students planning to pursue postsecondary education must take the State Examination for Admission to Higher Education (*Examen de Estado para Ingreso a la Educación Superior*), commonly referred to as *examen de estado* (state exam) or *pruebas ICFES* (ICFES tests). The exam consists of a series of tests designed to assess students' competencies in the areas of natural sciences (biology, physics, chemistry), social sciences, Spanish language, philosophy, mathematics, a foreign language (English, French, or German), and selected interdisciplinary topics (e.g. environmental studies, culture and communication, society and violence). Students can consult their scores online on the ICFES website and obtain a printout of their results.

Figure 8.17. Sample results of the State Examination for Admission to Higher Education

REGISTRO N°	APELLIDOS Y NOMBRES		TIPO DOCUMENTO T	NÚMERO

CÓDIGO DEL PLANTEL	NOMBRE	CIUDAD
012526	INSTITUTO TECNICO INDUSTRIAL LUCIO PABON NUÑEZ	012526

PUESTO 60 — NÚCLEO COMÚN — GRADO DE PROFUNDIZACIÓN

PRUEBAS	PUNTAJE		COMPONENTE 1	2	3	4	5	NIVEL DE COMPETENCIA *I	*A	*P	GRADO DE PROFUNDIZACIÓN
LENGUAJE	68.26	Puntaje	8.1	8.2	6.8			6.5	10.0	6.4	5.0
		Desempeño	SA	SA	SA			II	III	II	I
MATEMÁTICA	58.15	Puntaje	7.1	4.1	7.3			6.0	6.9	5.9	
		Desempeño	SA	B	SA			II	II	II	
CIENCIAS SOCIALES	57.56	Puntaje	6.6	5.8	6.4			5.8	7.6	6.2	
		Desempeño	SA	A	A			II	II	II	
FILOSOFÍA	36.49	Puntaje	2.1	5.1	3.4			3.5	5.3	3.3	
		Desempeño	SB	M	SB			I	II	I	
BIOLOGÍA	57.36	Puntaje	6.3	4.5	8.4			6.7	6.1	6.6	
		Desempeño	A	M	SA			II	II	II	
QUÍMICA	49.26	Puntaje	5.7	5.8	4.9	5.2		6.0	5.3	5.9	
		Desempeño	A	A	M	M		II	II	II	
FÍSICA	58.68	Puntaje	7.2	4.9	5.8	6.2		5.6	7.0	6.3	
		Desempeño	SA	M	A	A		II	II	II	
INGLÉS	53.56	Puntaje	6.6	6.4	5.1			7.5	5.8		
		Desempeño	SA	A	M			II	II		

*I : Competencia Interpretativa   *A : Competencia Argumentativa   *P : Competencia Propositiva

PUNTAJE INTERDISCIPLINAR
VIOLENCIA Y SOCIEDAD — 33.84

Higher Education

The set of documents that students receive upon completion of postsecondary education programs is the same as at the upper secondary level. It consists of a diploma stating the title obtained, a graduation record, and an academic transcript with the results for all semesters of study. Overall, the appearance and format of postsecondary documentation are very similar to those of upper secondary school credentials.

<u>Diploma</u>

The diploma will generally contain the following elements, marked with the corresponding numbers on the images of sample documents (Figures 8.18 through 8.28):

1. **National and institutional names and symbols**: As of 1992, postsecondary academic titles are granted directly by the institutions, which have full authority over the format and content of the diploma certificates they issue. This is why the name and symbol of the institution will feature on postsecondary documents more prominently than national symbols. The Ministry of National Education is often mentioned on higher education credentials as well.
2. **Authorization**: Under the institution's name, there will generally be a reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) authorizing the institution to operate and grant titles.
3. **Student's name and identification**.
4. **Program information and title**: The diploma will clearly state the title being awarded. All academic titles can be preceded by phrases like *título de...* (title of…), *título profesional de…* (professional title of…), *diploma de...* (diploma of…) or *grado de...* (degree of…). The program registration number (*código ICFES*, *registro ICFES*, or *código SNIES*) may appear on the diploma certificate and the graduation record too.
5. **Diploma number and inscription reference**: All diplomas are registered (*anotado* or *registrado*) in the institutional records. The number of the book (*libro*) and the folio (*folio*) where the diploma was inscribed will appear towards the bottom of the document. Most of the diplomas will also have their number (*diploma no.* or simply *no.*) stated on the document. If the diploma is a duplicate (*duplicado*), this fact will be indicated as well.
6. **Signatures**: All diplomas must be signed by the institution's head authorities such as the president (*rector*), dean of the faculty (*decano de la facultad*), general secretary (*secretario general*), and/or academic director (*director académico*).
7. **Place and date of issue**.

**Figure 8.18. Title of Professional Technician in Textile Design (1988),
postsecondary diploma program (technical)**

Figure 8.19. Title of Professional Technician in Industrial Relations issued by SENA (1997), postsecondary diploma program (technical)

REPUBLICA DE COLOMBIA

EL SERVICIO NACIONAL DE APRENDIZAJE "SENA"

Autorizado por el Ministerio de Educación Nacional, Resolución No. 00328 del ICFES

CONFIERE A

C.C.

NIMAIMA (CUNDINAMARCA)

El Título de

TECNICO PROFESIONAL

En RELACIONES INDUSTRIALES

FIRMA Y SELLO AUTORIZADOS   REGISTRO Y CERTIFICACION

SERVICIOS ADMINISTRATIVOS   SANTAFE DE BOGOTA 04.04.97   98.0164   05.09.98

CENTRO DE FORMACION   CIUDAD Y FECHA DE   No. DE REGISTRO Y FECHA DE
                                  TERMINACION   EXPEDICION

Registrado al Folio   del libro de Diplomas

Fecha

Figure 8.20. Title of Technologist in Systems (2005),
postsecondary diploma program (technological)

**Figure 8.21. Title of Business Manager (2001),
undergraduate degree program**

**Figure 8.22. Title of 'Master' in Textiles (1998),
undergraduate degree program**

**Figure 8.23. Title of Licentiate in Special Education/Late Development (1988),
undergraduate degree program**

EN NOMBRE DE LA REPUBLICA DE COLOMBIA

1.   Y POR AUTORIZACION DEL **2.**
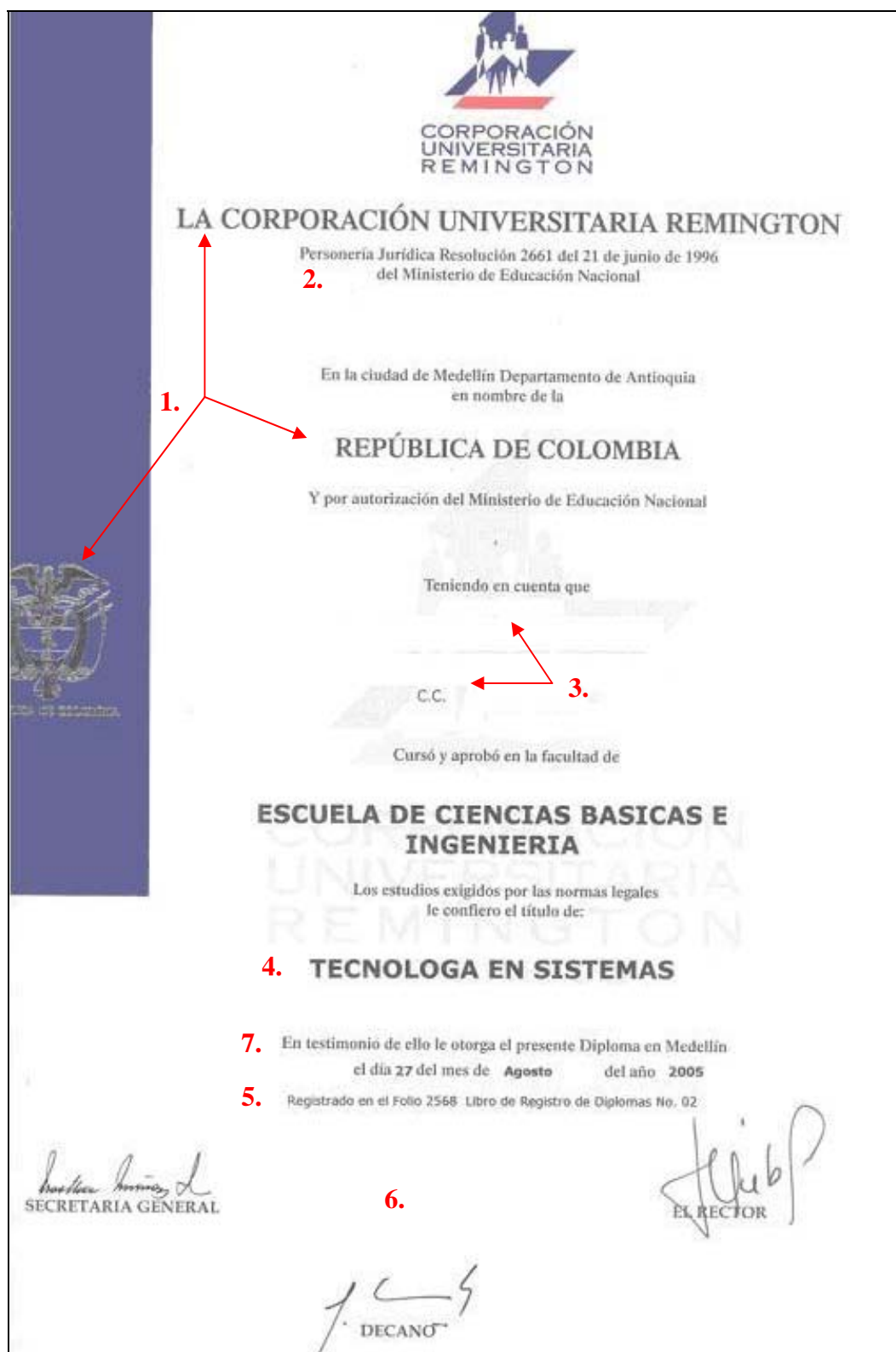
MINISTERIO DE EDUCACION NACIONAL

La Universidad Pedagógica Nacional
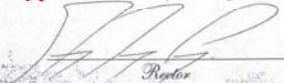
TENIENDO EN CUENTA QUE

3.

C.C. No.   DE BOGOTA

CUMPLIO SATISFACTORIAMENTE LOS REQUISITOS REGLAMENTARIOS DEL
PROGRAMA, LE CONFIERE EL TITULO DE

L I C E N C I A D O

4.   CON ESTUDIOS

EN

Educación Especial
Retardo en el Desarrollo

BOGOTA, D. E. A LOS 5   DIAS DEL MES DE   AGOSTO   DE 1988

EL RECTOR,   VICE-RECTOR ACADEMICO,   DECANO,

6.

ALCALDIA MAYOR DE BOGOTA

SECRETARIO DE EDUCACION

5.   ANOTADO AL FOLIO /¡ · ⁻   DEL LIBRO DE DIPLOMAS No. ⸀⸀

N⁰ 06111   **7.**   BOGOTA, /· . ⸱⸱ p⸱⸱⸱·⸱⸱⸱ DE 19 ⸱⸱ .

THOMAS DE LA RUE DE COLOMBIA S.A.

**Figure 8.24. Title of Licentiate in Preschool Education (1996),
undergraduate degree program**

República de Colombia

1.

La Universidad de San Buenaventura

2. Con Personería Jurídica, Resolución N° 1326, Marzo 25 1975, del Ministerio de Educación Nacional.

Confiere el Título de

4. Licenciada en
Educación Preescolar

A

3.

_____

c.c. de Villavicencio

En testimonio de ello, se expide el presente diploma en

7. Santafé de Bogotá, D.C. el día 21 del mes de febrero de 1996.

6. Rector   Decano   Secretario General

Secretario de Educación Distrital

Registrado al Folio 042 del Libro 01 de Diplomas, x los 8 días del mes de agosto de 1997 No. 721

5. 09166

**Figure 8.25. Title of Specialist in Higher Management (2001),
graduate-level specialization program**
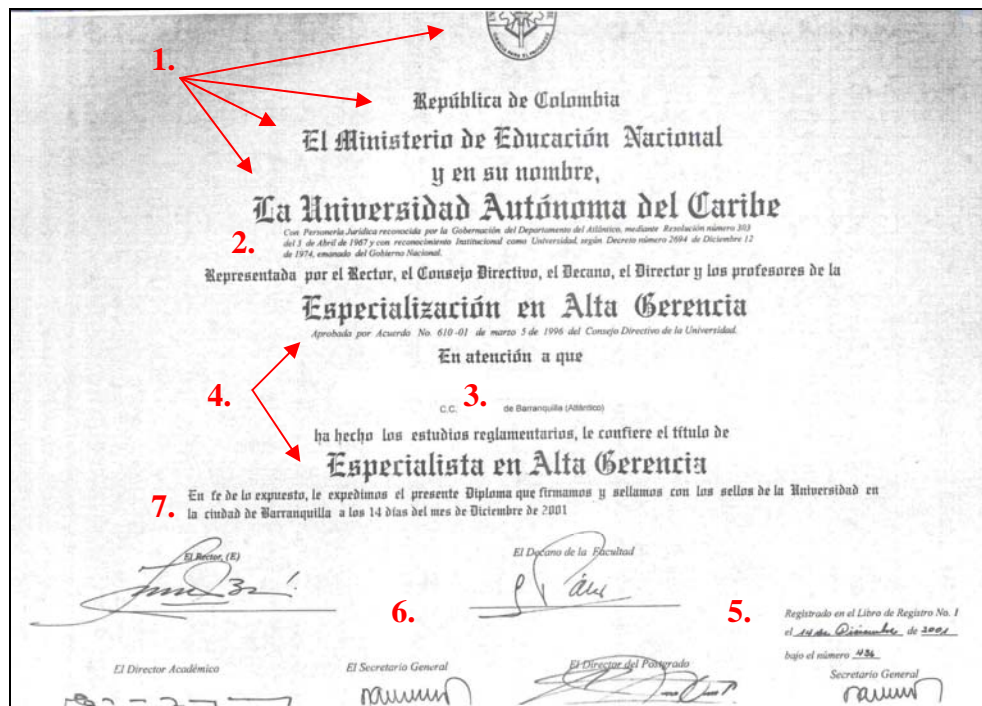
**Figure 8.26. Title of Master in Management (2006),
graduate degree program**

**Figure 8.27. Title of Doctor in Engineering (2006),
graduate degree program**

**Figure 8.28. Designation of Diploma Holder in Community Management and Social Management
(2000), professional development program**

Note: This document is <u>not</u> a degree certificate and hence does not possess all the specified characteristics.

<u>Graduation Record</u>

A graduation record (*acta de grado*/ *acta de graduación*/ *acta individual de graduación*) from an institution of higher education will normally contain the following elements, marked with the corresponding numbers on the image below (Figure 8.29):

1. **Name and symbol of the educational institution**: Apart from the institution, the faculty from which the student graduated should be mentioned too.
2. **Institutional information**: Information about the legal status of the institution, the specific titles the institution is authorized to award, and a reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) with regard to the above points may or may not appear on postsecondary graduation records. (This information does not appear in the sample document in Figure 8.29.)
3. **Graduation record number**: Graduation records may or may not be numbered.
4. **Student's name and identification**.
5. **Level of education completed**: Apart from the title awarded, the program registration number (*código ICFES*, *registro ICFES*, or *código SNIES*) may appear on the graduation record as well.
6. **Additional information**: Postsecondary graduation records frequently mention details such as the institutional authorities who were present at the graduation ceremony or the title of the final project the student prepared.
7. **Inscription reference**: Since all graduation ceremonies and diplomas awarded are registered (*anotado* or *registrado*) in the institutional records, the number of the corresponding book (*libro*) and the folio (*folio*) will be mentioned on the document.
8. **Signatures**: The record should be signed by the institution's head authorities such as the president (*rector*), dean of the faculty (*decano de la facultad*), general secretary (*secretario general*), and/or academic director (*director académico*).
9. **Place and date of issue**.

Figure 8.29.Graduation record for the title of Business Manager (2001)

Note: The corresponding diploma is shown in Figure 8.21.

Transcript

Colombian postsecondary transcripts (*certificado de calificaciones*/ *certificado de notas*/ *certificado de resultados*/ *certificado de estudio*) are similar in format and content Canadian ones. Often they are printed on paper with security features. They are also more detailed than secondary school transcripts.

Several items, marked with the corresponding numbers on the images of sample documents (Figure 8.30), should appear on a typical postsecondary transcript:

1. **Name and symbol of the educational institution**: The institution's name and symbol frequently appear as a background image or as part of the security features on the document.
2. **Authorization**: A reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) authorizing the school to operate and grant titles may or may not appear on the transcript. (This information does not appear in the sample document in Figure 8.30.)
3. **Transcript number**: The transcripts may or may not be numbered. (This information does not appear in the sample document in Figure 8.30.)
4. **Student's name and identification**.
5. **Program information**: Apart from the name of the program, the transcript may also indicate the student's status (*estado*), i.e. whether they graduated (*graduado*) from the program or not.
6. **Subjects, hours, credits, and grades**: All the subjects (*asignaturas*) taken will be listed along with the number of credits (*créditos*) obtained for each course or with the hours of instruction per week (*intensidad horaria, I.H.*/ *horas semanales, H.S.*/ *intensidad horaria semanal, I.H.S.*). The final grades (*notas*/ *evaluación*/ *valoración*/ *calificaciones*/ *resultados*) for each subject will typically be indicated as numbers. Most postsecondary transcripts will be organized by semesters (*semestres*) or academic periods (*periodos académicos*) of study. The grade averages for each particular semester or academic period (*promedio semestral* or *promedio periodo*) will usually be shown too.
7. **Summary of credits and results**: A summary of the credits (*créditos*) required by the program and credits accumulated by the student will typically appear either on top or at the bottom of the document along with other general information such as the student's final grade point average (*promedio acumulado*).
8. **Signatures**: All postsecondary transcripts should be signed by at least one person, usually the registry director (*director de registro*), and are often stamped by the institution or the individual who signed them.
9. **Place and date of issue**: The office issuing the transcript and date of issue must be indicated on the document.
10. **Explanatory legend and grading scale**: At the end of the transcript, there will sometimes be a legend of the abbreviations and/or the grading scale.

Figure 8.30. Academic transcript for an undergraduate program in industrial engineering (issued in 2004 for studies completed in 1991)

Page 1 of 2

9. Fecha: 2004-03-29

UNIVERSIDAD DEL NORTE • DEPARTAMENTO DE REGISTRO

1. UNIVERSIDAD DEL NORTE — CERTIFICADO DE NOTAS

4. Estudiante:
Nombre

5. Programa: Ingeniería industrial
Estado: Graduado

7. Créditos Cursados Gral: 220
Créditos Cursados Prog: 217
Créditos Aprobados Prog: 194
Puntos Acumulados: 742.8
Promedio Acumulado: 3.42

Estado Académico: Normal

****

6. Periodo: Primer semestre 1986   Prom Periodo: 3.7

Asignatura	Nombre asignatura	Cred	Nota
PREC 1182	MET.DE LA INV. CIENTIFICA	3	4.0
PREC 2211	ALGEBRA Y TRIGONOMETRIA	3	3.7
PREC 3110	QUIMICA GENERAL	3	4.2
PREC 3111	LAB. DE QUIMICA GRAL.	1	4.1
PREC 1210	CASTELLANO	3	3.7
PREC 1112	CULTURA LATINA	3	4.2
PREC 1221	ECUACIONES DIFERENCIALES	3	3.3
PREC 2220	CALCULO I	4	3.3
PREC 2213	ALGEBRA LINEAL	4	3.5
PREC 8020	INTR. VIDA UNIVERSITARIA	0	3.0

Periodo: Segundo semestre 1986   Prom Periodo: 3.1

Asignatura	Nombre asignatura	Cred	Nota
PREC 2112	DIBUJO DE INGENIERIA	4	3.0
PREC 2233	LAB.FISICA MECANICA	1	3.6
PREC 2916	INFORMATICA I	3	3.2
PREC 8071	Baloncesto	1	4.6
PREC 1230	INGLES I	3	3.2
PREC 2221	CALCULO II	4	2.6
PREC 2232	FISICA MECANICA	4	3.1

Periodo: Primer semestre 1987   Prom Periodo: 3.2

Asignatura	Nombre asignatura	Cred	Nota
PREC 1173	EPIDEMIOLOGIA	3	3.8
PREC 2115	INTROD. A LA INGENIRIAS	3	2.7
PREC 2221	CALCULO II	4	3.3
PREC 1241	INGLES II	3	3.6
PREC 1442	CONTABILIDAD GENERAL	3	3.0
PREC 2130	ESTATICA	4	3.0

Periodo: Segundo semestre 1987   Prom Periodo: 2.9

Asignatura	Nombre asignatura	Cred	Nota
PREC 8078	Atletismo	1	4.2
PREC 2222	CALCULO III	4	3.0
PREC 2120	MATERIALES DE INGENIERIA	3	2.0
PREC 2236	FISICA CALOR ONDAS	4	3.0
PREC 2124	LAB.RESIST.MATERIALES	1	3.8
PREC 2122	RESISTENCIA MATERIALES	3	2.6
PREC 2115	INTROD. A LA INGENIRIAS	3	3.1
PREC 2237	LAB.FISICA CALOR ONDAS	1	3.2

Periodo: Primer semestre 1988   Prom Periodo: 3.7

Asignatura	Nombre asignatura	Cred	Nota
PREC 2122	RESISTENCIA MATERIALES	3	3.0
PREC 2120	MATERIALES DE INGENIERIA	3	4.0
PREC 1418	PROCESOS ADMINISTRATIVO	3	4.2
PREC 1321	TEORIA ECONOMICA	4	3.7

Periodo: Segundo semestre 1988   Prom Periodo: 3.0

Asignatura	Nombre asignatura	Cred	Nota
PREC 2235	LAB.FISICA ELECTRICIDAD	1	3.3
PREC 2511	TERMODINAMICA	3	2.7
PREC 1356	ESTADISTICA I (ADM)	4	3.0
PREC 2223	ECUACIONES DIFERENCIALES	4	3.3
PREC 2234	FISICA ELECTRICIDAD	4	3.0
PREC 2416	PROCESOS DE FABRICACION	4	2.6

Periodo: Primer semestre1989   Prom Periodo: 3.6

Asignatura	Nombre asignatura	Cred	Nota
PREC 2416	PROCESOS DE FABRICACION	4	3.0
PREC 1163	SOCIOLOGIA GENERAL	2	4.2
PREC 2511	TERMODINAMICA	3	4.0

Periodo: Segundo semestre1989   Prom Periodo: 3.4

Asignatura	Nombre asignatura	Cred	Nota
PREC 1445	CONTABILIDAD DE COSTOS	3	3.4
PREC 1357	ESTADISTICA II	4	3.1
PREC 2630	ESTUDIO DE TRABAJO	3	2.9
PREC 1574	GESTION PUBLICA	3	4.2
PREC 2434	MECANISMOS	3	3.5
PREC 2631	LAB.METODOS Y TIEMPOS	1	4.4
PREC 2667	INV. DE OPERACIONES I	3	3.0

Periodo: Primer semestre1990   Prom Periodo: 3.6

Asignatura	Nombre asignatura	Cred	Nota
PREC 2652	CONTROL DE CALIDAD	3	3.5
PREC 2417	TALLER DE MANUFACTURA	1	3.9
PREC 2356	LAB.DE COMUNICACIONES I	3	3.2

UNIVERSIDAD DEL NORTE • DEPARTAMENTO DE REGISTRO • UNIVERSIDAD DEL NORTE

Departamento de Registro **9.**

Bloque D, primer piso. Teléfonos: 3509 231 - 482

9. Fecha: 2004-03-29

1. DEPARTAMENTO DE REGISTRO • UNIVERSIDAD DEL NORTE • DEPARTAMENTO DE REGISTRO • UNIVERSIDAD DEL NORTE • DEPARTA

UNIVERSIDAD DEL NORTE — CERTIFICADO DE NOTAS

4. Estudiante:
Nombre

5. Programa: Ingeniería industrial
Estado: Graduado

7. Créditos Cursados Gral: 220
Créditos Cursados Prog: 217
Créditos Aprobados Prog: 194
Puntos Acumulados: 742.8
Promedio Acumulado: 3.42

Estado Académico: Normal

***

6.

Periodo: Primer semestre1990	Prom Periodo: 3.6		
Asignatura	Nombre asignatura	Cred	Nota
PREC 2640	COSTOS DE PRODUCCION	3	4.0
PREC 2653	LAB.CONTROL DE CALIDAD	1	4.1
PREC 1460	INGENIERIA ECONOMICA	3	3.2
PREC 4151	PREPAR.PRACT.PROFESIONAL	3	3.8
PREC 2630	ESTUDIO DE TRABAJO	3	3.7

Periodo: Segundo semestre 1990	Prom Periodo: 3.7		
Asignatura	Nombre asignatura	Cred	Nota
PREC 1370	MERCADOS I	4	3.8
PREC 2670	INV. DE OPERACIONES II	4	3.0
PREC 2680	INTENSIFICACION I	3	4.5
PREC 1192	ETICA PROFESIONAL	2	4.0
PREC 2638	EVAL.DE OFIC.E INCENTIVO	4	3.4
PREC 2648	GEST.PROCESO PRODUCTIVOS	4	3.6

Periodo: Segundo semestre 1991	Prom Periodo: 4.2		
Asignatura	Nombre asignatura	Cred	Nota
PREC 2691	PROYECTO DE GRADO II	6	4.2

Periodo: Intersemestral Jun. 1990	Prom Periodo: 3		
Asignatura	Nombre asignatura	Cred	Nota
PREC 2647	DIS.SISTEMAS PRODUCTIVOS	3	3.0

Periodo: Primer semestre 1991	Prom Periodo: 3.7		
Asignatura	Nombre asignatura	Cred	Nota
PREC 2651	LAB.SEGUR.GEST.AMBIENTAL	1	4.1
PREC 2636	SEGUR. GESTION AMBIENTAL	3	3.5
PREC 2650	PROCESOS INDUSTRIALES	3	3.7
PREC 2634	DISTRIBUCION DE PLANTAS	3	4.0
PREC 2690	PROYECTO DE GRADO I	2	3.6
PREC 2649	SEMINARIO DE PRODUCCION	3	3.3
PREC 2676	TOPICOS ESP.DE ING.INDUSTRIA	3	3.9

***

Observación General:

10.
II: Nota Incompleto
Y: Nota Pendiente
H: Nota Habilitada (3.0)
AP: Asignatura Aprobada
E: No Forma Parte del Programa Actual

Aniel Saenz l
Director de Registro

8.

UNIVERSIDAD DEL NORTE
Acreditada institucionalmente por
su excelencia académica.
Resolución MEN No. 2085 – 05/09/2003.

SOLO ES VALIDO
CON LA FIRMA AUTOGRAFA EN TINTA
EN ALTO RELIEVE
DE REGISTRO

Departamento de Registro **9.**

Bloque D, primer piso. Teléfonos: 3509 231 - 482

128

<u>Diploma Registry</u>

In the years 1980-1995, higher education credentials had to be inscribed in a national diploma registry (*registro de diplomas*) just like *bachiller* diplomas. This is why postsecondary documents from this time period will typically bear the same stamps pertaining to the inscription process as those already described in the previous section.

<u>Legalization</u>

Students intending to use their postsecondary credentials abroad will usually have their documents authenticated and/or legalized in the same way as upper secondary school documents. For samples of legalization stamps and their descriptions, please refer to the previous section.

In addition, postsecondary documents will often bear the ink stamp of the Ministry of National Education or ICFES (prior to 2003) along with the signatures of officials. The stamps confirm that the institution issuing the document is duly recognized and authorized to operate by the Colombian government.

Figure 8.31. Sample ink stamps of the Ministry of National Education (left) and ICFES (right) confirming the institution of higher education issuing the diploma
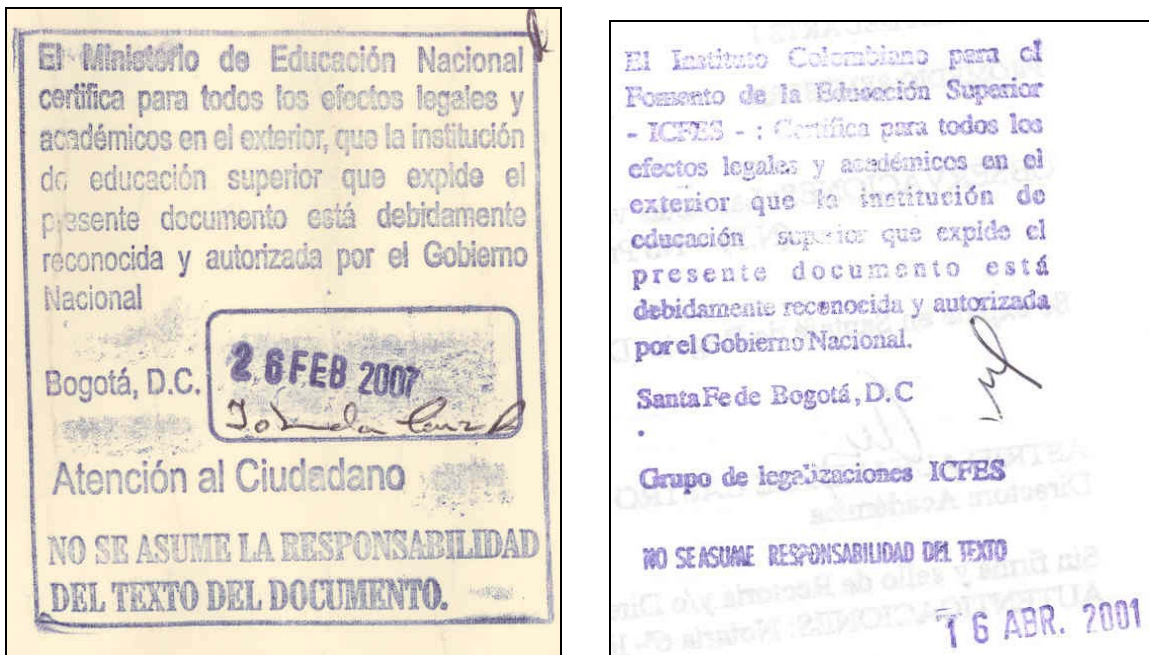
Approximately 60 professions – including those in health, engineering, and administration – are regulated in Colombia and require graduates to obtain additional registration with the appropriate professional council (*consejo professional*), board (*junta*), or ministry (*ministerio*). In these cases, an academic title alone does not entitle the degree-holders to practice their profession. They must first be issued a certificate of professional registration (*certificado de matrícula profesional*) and a wallet-size professional license (*tarjeta profesional*), permitting them to exercise the profession.

Figure 8.32. Sample certificate of professional registration for an electrical engineer (2002)

Consejo Profesional
Nacional de Ingenierías
Eléctrica, Mecánica
y Profesiones Afines

ORIGINAL

CERTIFICADO DE MATRICULA PROFESIONAL
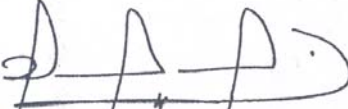
EL PRESIDENTE
CONSEJO SECCIONAL DE CALDAS

CERTIFICA:

1. Que en cumplimiento de la Ley 51 de 1986 y del Decreto 1873 de 1996, _____, identificado con Cédula de Ciudadanía _____ de Manizales (Caldas), presentó solicitud de matrícula profesional de Ingeniero Electricista ante el Consejo Profesional de Ingenierías Eléctrica, Mecánica y Profesiones Afines, Seccional de Caldas, acreditando para el efecto su grado profesional, otorgado por la Universidad Nacional de Colombia - Manizales el día 22 de marzo de 2002.

   (Photo)

2. Que, estudiada la solicitud, el Consejo Profesional de Ingenierías Eléctrica, Mecánica y Profesiones Afines, Seccional de Caldas, mediante la Resolución 7 del 8 de agosto de 2002 expidió la matrícula profesional a _____ para ejercer la profesión de INGENIERO ELECTRICISTA de acuerdo con lo señalado en la ley y el decreto antes citados.

3. Que, mediante la resolución 36 del 20 de agosto de 2002, el Consejo Profesional Nacional de Ingenierías Eléctrica Mecánica y Profesiones Afines confirmó la matrícula anterior y le asignó el número de registro:

   (Registration No.)

Este certificado se expide en Manizales el día 20 de agosto de 2002.

HUGO VALENZUELA PÉREZ
Presidente

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Technical and Vocational Education

Students graduating from lower-level technical and vocational education receive two documents: a certificate of professional aptitude (*certificado de aptitud profesional*, old name) or a certificate of occupational aptitude (*certificado de aptitud ocupacional*, new name) and a transcript. The physical appearance of the documents is similar to postsecondary credentials but tends to be simpler.

The National Apprenticeship Service (*Servicio Nacional de Aprendizaje*) or SENA is the largest public provider of lower technical and vocational education and is also authorized to offer programs leading to academic titles such as professional technician or technologist. A sample of a professional technician diploma issued by SENA is shown in Figure 8.19.

<u>Certificate</u>

With regard to the format and content of the certificates of occupational aptitude (CAOs), there are several main elements marked on the sample documents (Figure 8.34) as follows:

1. **National and institutional names and symbols**: It is worth noting that in the late 1990s, SENA's logo has changed, as shown in the figure below.

Figure 8.33. SENA's old (left) and current (right) logos
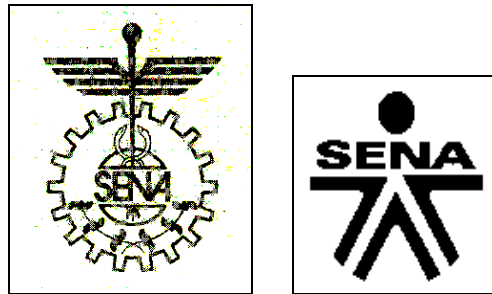
2. **Authorization**: Under the institution's name, there may be a reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) authorizing the institution to operate and offer this type of education. Such authorization is not required for lower technical and vocational programs administered by SENA.
3. **Student's name and identification**. (The actual names and identification numbers have been removed from the sample credentials to protect the privacy of the individuals.)
4. **Qualification awarded**: The certificate will clearly state the qualification being awarded. Oftentimes, the CAO will simply state the occupation in which the skills were acquired. For example, many SENA certificates will contain the phrase "*El Servicio Nacional de Aprendizaje SENA certifica la aptitud ocupacional/ profesional de* (name of student) *en el oficio de* (name of trade/occupation)," translating to "The National Apprenticeship Service SENA certifies the

occupational/professional aptitude of (name of student) in the trade/occupation of (name of trade/occupation)."

5. **Areas studied and mode of training**: SENA certificates in particular will list the subjects completed by the student (*areas aprobadas*) right on the CAO and will state the mode of training (*modo de formación*), e.g. apprenticeship (*aprendizaje*). SENA certificates issued prior to the 1980s even indicated the total duration (*duración total*) of the program.

6. **Certificate type and number**: SENA issues several types of certificates, which are listed on the reverse side of the CAO. The type of certificate will also be specified in the lower right-hand corner on the front page of the document. Often the CAOs will have their own unique number as well. In the case of SENA certificates, the number will appear on the reverse side of the document.

7. **Inscription reference**: The CAOs are generally inscribed in institutional records. The register number (*registro no.*) confirms their registration.

8. **Signatures**: All CAOs must be signed by the institution's head authorities such as the director (*director*) or general secretary (*secretario general*). SENA certificates are normally signed and stamped by the assistant regional manager (*subgerente regional*) and secretary (*secretario*).

9. **Place and date of issue**.

Figure 8.34. Certificate of Professional Aptitude in the occupation of cook issued by SENA (1987), lower technical and vocational education

Front side

ANEXO 1

EL "SENA" EXPIDE LOS SIGUIENTES CERTIFICADOS

TIPO	PARA	REQUISITO
A.	ASESORES DE EMPRESA SUPERVISORES E INSTRUCTORES SENA INSTRUCTORES DE EMPRESA	APROBAR O VALIDAR LOS CURSOS TANTO DEL SENA COMO DE EMPRESAS.
B.	TECNICOS	APROBAR LOS CURSOS DE PROMOCION EN FORMA CONSECUTIVA Y OBTENER LA TOTALIDAD DE LOS CREDITOS QUE CONFORMEN EL RESPECTIVO CURSO.
C.	CERTIFICAR APTITUD PROFESIONAL EN UN OFICIO SEA POR APRENDIZAJE O COMPLEMENTACION.	APROBAR LOS CURSOS CORRESPONDIENTES A UN OFICIO MOTIVO DE APRENDIZAJE O HABER OBTENIDO LA TOTALIDAD DE LOS CREDITOS QUE COMPONEN EL OFICIO CURSADO POR COMPLEMENTACION.
D.	ACREDITAR APROBACION O VALIDACION DE CURSOS DE HABILITACION, COMPLEMENTACION, ESPECIALIZACION O PROMOCION.	APROBAR O VALIDAR LOS CURSOS CORRESPONDIENTES A LOS MODOS DE FORMACION ENUNCIADOS. LA ACUMULACION DE CREDITOS NECESARIOS EN UN OFICIO U OCUPACION DA DERECHO A LA OBTENCION DEL CERTIFICADO DE APTITUD PROFESIONAL, PREVIA EVALUACION FINAL.
E.	CONSTANCIA DE ASISTENCIA A CURSOS.	ASISTIR A CURSOS INFORMATIVOS, SEMINARIOS, CHARLAS Y CONFERENCIAS DICTADAS POR EL SENA O EN FORMA CONJUNTA CON OTRAS ENTIDADES. LA DURACION DEBE SER MENOR A DIEZ (10) HORAS.

6.

No. 0113665

Nota: En la esquina inferior derecha se registra el tipo de certificado.

<u>Transcript</u>

Several items, marked with the corresponding numbers on the images of sample documents (Figure 8.35), should appear on a typical transcript issued by an institution providing lower-level technical and vocational training:

1. **Name and symbol of the educational institution**.
2. **Authorization**: A reference to a resolution (*resolución*), decree (*decreto*), or law (*ley*) authorizing the school to operate and grant titles may or may not appear on the transcript. (This information does not appear in the sample document in Figure 8.35.)
3. **Transcript number**: The transcripts may or may not be numbered. (This information does not appear in the sample document in Figure 8.35.)
4. **Student's name and identification**. (The actual names and identification numbers have been removed from the sample document to protect the privacy of the individuals.)
5. **Type of program completed**.
6. **Subjects, hours, and grades**: All the subjects (*asignaturas*) taken will be listed along with the number of grades (*notas/ evaluación/ valoración/ calificaciones/ resultados*) obtained for each course and with the hours of instruction per week (*intensidad horaria, I.H./ horas semanales, H.S./ intensidad horaria semanal, I.H.S.*). The final grades for each subject will be indicated according to the grading scale used by the institution. Most transcripts will be organized by semesters (*semesters*) and may make reference to the instruction stage (*etapa lectiva*) and the apprenticeship/practical stage (*etapa productiva*).
7. **Signatures**: The transcripts will generally be signed y a secretary (*secretario*) or coordinator (*coordinador*).
8. **Place and date of issue**.
9. **Explanatory legend and grading scale**: At the end of the transcript, there will often be a legend of the abbreviations and/or the grading scale.

Figure 8.35. Transcript for the occupation of cook issued by SENA (issued in 2002 for studies completed in 1987), lower technical and vocational education

Note: The corresponding certificate is shown in Figure 8.34.

1. **SENA**
MINISTERIO DE TRABAJO Y SEGURIDAD SOCIAL
SERVICIO NACIONAL DE APRENDIZAJE -SENA-
REGIONAL BOGOTA-CUNDINAMARCA

REGISTRO Y CERTIFICACION REGIONAL

HACE CONSTAR

4. **4.**

5. Que: _____, identificado con Cédula de Ciudadanía No. _____ de Bogotá, realizó y aprobó la Especialidad **COCINERO**. Certificado de Aptitud Profesional Registro No. 87.00947 del 04 de agosto de 1987.

6. XXXXXXXXXXXXX

PRIMER SEMESTRE	EV.	IH.	SEGUNDO SEMESTRE	EV.	IH.
TEC. Y PRÁCTICAS COCINA	B	528	TECNOLOGÍA Y PRACTICA COCINA	A	528
CORTE DE CARNES	C	66	TECNOLOGÍA PRÁCTICA COMEDOR	A	66
REPOSTERÍA DE COCINA	B	66	REPOSTERÍA COCINA	B	66
MATEMÁTICAS APLICADAS	C	44	NUTRIC. CONSERVAC. ALIMENTOS	C	44
FRANCÉS	C	44	MATEMÁTICA APLICADA	B	44
ETICA	B	44	FRANCÉS	C	44
EDUCACIÓN FÍSICA	B	44	ETICA	B	44
HIGIENE Y CONSERVACIÓN	B	44	FORMACIÓN FÍSICA	A	44
DE ALIMENTOS			**9.** DESAYUNOS	B	44

TERCER SEMESTRE			EQUIVALENCIA DE EVALUACIONES				
ETAPA PRODUCTIVA	A	1760	96	A	100	N o S	APRUEBA
			84	A	95	A	APRUEBA
			72	A	83	B	APRUEBA
			60	A	71	C	APRUEBA
8.			30	A	59	D	APRUEBA
			HASTA		29	E	PIERDE

Se expide en Bogotá D. C., a los cinco (5) días del mes de diciembre del año dos mil dos (2002).

7.

JOSE VICENTE DUCUARA MORENO
Coordinador

Flor M.

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<u>Diploma Registry and Legalization</u>

With the exception of certificates of occupational/professional aptitude in assistant health professions, lower technical and vocational qualifications do not require separate registration. The CAOs in assistant health professions must be registered with the regional Secretariat of Health (*Secretaría de Salud*) and hence may bear the corresponding stamps of the secretariat on the reverse side of the certificate.

Since CAOs do not have the same value as formal academic titles, they are rarely legalized.

9. SOURCES

Academia Nacional de Aprendizaje. <http://www.andap.edu.co/> Retrieved on February 8, 2008.

Asamblea Nacional Constituyente, "Constitución Política de Colombia de 1991."
<http://www.cervantesvirtual.com/servlet/SirveObras/ 01361686468917724422802/index.htm>
Biblioteca Virtual Miguel de Cervantes: Constituciones Hispanoamericanas. Proclaimed on July 4, 1991. Retrieved on October 5, 2007.

Asamblea Nacional por la Educación, "Síntesis de los Aportes al Plan Nacional Decenal 2006-2015."
<http://www.plandecenal.edu.co/html/1726/articles-130491_archivo.doc> Retrieved on October 5, 2007.

Asociación Colombiana de Facultades de Administración. <http://www.ascolfa.edu.co/> Retrieved on January 31, 2008.

Asociación Colombiana de Facultades de Contaduría Pública. <http://www.asfacop.org/> Retrieved on January 31, 2008.

Asociación Colombiana de Facultades de Enfermería. <http://www.acofaen.org.co/> Retrieved on January 31, 2008.

Asociación Colombiana de Facultades de Ingeniería. <http://www.acofi.edu.co/> Retrieved on January 31, 2008.

Asociación Colombiana de Facultades de Medicina. <http://ascofame.org.co/inicio/> Retrieved on January 31, 2008.

Asociación Colombiana de Facultades de Odontología. <http://www.acfo.edu.co/> Retrieved on January 31, 2008.

Asociación Colombiana de Universidades. <http://www.ascun.org.co/> Retrieved on December 18, 2007.

Asociación Nacional de Entidades de Educación para el Trabajo y el Desarrollo Humano.
<http://www.asenof.org/> Retrieved on February 1, 2008.

Botero Chica, Carlos A., "La Formación de Valores en la Historia de la Educación Colombiana."
<http://www.rieoei.org/deloslectores/932Botero.PDF> Revista Iberoamericana de Educación. Published in April 2005. Retrieved on October 5, 2007.

Cámara de Representantes, "Símbolos Patrios." <http://www.camara.gov.co/> Retrieved on August 27, 2007.

Canadian International Development Agency (CIDA), "Colombia." <http://www.acdi-cida.gc.ca/colombia>
Retrieved on August 27, 2007.

Cárdenas S., Jorge Hernán, Maria Angélica Rodríguez R., and Johanna Poveda, "Diagnóstico sobre los Títulos de Educación Superior en Colombia."
<http://www.iesalc.unesco.org.ve/programas/titulos/informe%20titulos%20colombia.pdf>
Published in 2006. Retrieved on December 18, 2007.

Central Intelligence Agency (CIA), "The World Factbook: Colombia."
<https://www.cia.gov/library/publications/the-world-factbook/geos/co.html> Retrieved on August 27, 2007.

Centro Colombiano de Estudios de Lenguas Aborígenes (CCELA). <http://ccela.uniandes.edu.co/> Retrieved on August 27, 2007.

Citizenship and Immigration Canada (CIC), "Facts and Figures 2006: Immigration Overview – Permanent and Temporary Residents." <http://www.cic.gc.ca/english/resources/statistics/facts2006/ index.asp> Retrieved on September 5, 2007.

Colegio Abraham Lincoln, Bogotá. <http://www.abrahamlincoln.edu.co/> Retrieved on November 20, 2007.

Colegio Andino – Deutsche Schule, Bogotá. <http://www.colegioandino.edu.co/> Retrieved on November 20, 2007.

Colegio Colombo Hebreo, Bogotá. <http://www.colegiocolombohebreo.edu.co/> Retrieved on November 20, 2007.

Colegio Nueva York, Bogotá. <http://www.colegionuevayork.edu.co/> Retrieved on November 20, 2007.

Colombia Info, "Información General." <http://www.colombia.com/colombiainfo/ infogeneral/> Retrieved on August 27, 2007.

Congreso de la República de Colombia, "Ley 30 de Diciembre 28 de 1992."
<http://www.mineducacion.gov.co/1621/article-86437.html> Published on December 28, 1992. Retrieved on October 9, 2007.

---, "Ley 115 de Febrero 8 de 1994." <http://www.mineducacion.gov.co/1621/article-85906.html> Published on February 8, 1994. Retrieved on October 9, 2007.

Consejo Nacional de Acreditación (CNA). <http://www.cna.gov.co/> Retrieved on December 18, 2007.

Consejo Nacional Constituyente, "Constitución Política de Colombia de 1886." <http://www.cervantesvirtual.com/servlet/SirveObras/ 68062733439359617422202/index.htm> Biblioteca Virtual Miguel de Cervantes: Constituciones Hispanoamericanas. Proclaimed on August 5, 1886. Retrieved on October 5, 2007.

Consejo Profesional de Administración de Empresas. <http://www.cpae.gov.co/> Retrieved on January 31, 2008.

Consejo Profesional de Ingeniería de Petróleos. <http://www.cpip.org.co/> Retrieved on January 31, 2008.

Consejo Profesional de Ingeniería de Transportes y Vías de Colombia. <http://www.cpitvc.org/> Retrieved on January 31, 2008.

Consejo Profesional de Ingenierías Eléctrica, Mecánica y Profesiones Afines. <http://www.aciem.org/subhome/Matricula.asp> Retrieved on January 31, 2008.

Consejo Profesional de Ingeniería Química de Colombia. <http://www.cpiq.org.co/> Retrieved on January 31, 2008.

Consejo Profesional Nacional de Ingeniería. <http://www.copnia.gov.co/> Retrieved on January 31, 2008.

Consejo Superior de la Judicatura. <http://www.ramajudicial.gov.co/csj_portal/index.html> Retrieved on January 31, 2008.

Corpoeducación et al., "Hay Avances, Pero Quedan Desafíos: Informe de Progreso Educativo de Colombia 2006." <http://www.oei.es/quipu/colombia/preal_colombia2006.pdf> Retrieved on March 19, 2008.

Departamento Administrativo Nacional de Estadística (DANE), "Censo 2005." <http://www.dane.gov.co/censo/> Retrieved on August 27, 2007.

Encyclopaedia Britannica, "Colombia." <http://www.britannica.com/nations/Colombia> Retrieved on August 27, 2007.

Escuela Colombiana de Rehabilitación. <http://www.ecr.edu.co/estudios/fisioterapia.htm> Retrieved on January 31, 2008.

Escuela Normal Superior de Bucaramanga. <http://www.normalbucaramanga.edu.co/> Retrieved on March 19, 2008.

Foreign Affairs and International Trade Canada, "The Canadian Trade Commissioner Service: Fact Sheet – Colombia." <http://www.infoexport.gc.ca/ie-en/DisplayDocument.jsp?did=250&gid=191> Retrieved on August 30, 2007.

Fundación CESDE. <http://www.cesde.edu.co/> Retrieved on February 8, 2008.

Fundación para la Aplicación y Enseñanza de las Ciencias (FUNDAEC). <http://www.fundaec.org/en/> Retrieved on November 20, 2007.

García Sánchez, Bárbara Yadira, "La Educación Colonial en la Nueva Granada: Entre lo Doméstico y lo Público." <http://dialnet.unirioja.es/servlet/ articulo?codigo=2334972> Revista Historia de la Educación Latinoamericana. Number 7, pages 217-238. Published in 2005. Retrieved on October 5, 2007.

Graduados Colombia: Observatorio Laboral para la Educación (OML). <http://www.graduadoscolombia.edu.co/> Retrieved on December 19, 2007.

Hague Conference on Private International Law, "Apostille." <http://hcch.e-vision.nl/index_en.php?act=text.display&tid=37> Retrieved on November 20, 2007.

Instituto Colombiano de Aprendizaje (INCAP). <http://www.incap.edu.co/> Retrieved on February 8, 2008.

Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior (ICETEX). <http://www.icetex.gov.co/> Retrieved on December 19, 2007.

Instituto Colombiano de Normas Técnicas y Certificación (ICONTEC). <http://www.icontec.org.co/> Retrieved on November 20, 2007.

Instituto Colombiano del Deporte (COLDEPORTES). <http://www.coldeportes.gov.co/> Retrieved on December 19, 2007.

Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología "Francisco José de Caldas" (COLCIENCIAS). <www.colciencias.gov.co/> Retrieved on December 19, 2007.

Instituto Colombiano para el Fomento de la Educación Superior (ICFES). <http://www.icfes.gov.co/> Retrieved on December 17, 2007.

---, "Estadísticas de la Educación Superior: Resumen Anual."
<http://www.mineducacion.gov.co/1621/articles-85665_archivo_pdf1.pdf> Published in 2002.
Retrieved on October 5, 2007.

Junta Central de Contadores. <http://www.jccconta.gov.co/> Retrieved on January 31, 2008.

Knight, Jane, "Building a Regional Academic Credit System in Latin America."
<http://www.wes.org/ewenr/PF/07july/printerfriendly.htm> Publisher in July 2007. Retrieved on
December 18, 2007.

López Domínguez, Luis Horacio, "Santander y la Educación: Los Colegios Republicanos – Una Herencia
Perdurable." <http://lablaa.org/blaavirtual/revistas/credencial/abril1992/abril3.htm> Revista
Credencial Historia. Edition 28. Published in April 1992. Retrieved on October 5, 2007.

Ministerio de Agricultura y Desarrollo Rural. <www.minagricultura.gov.co> Retrieved on January 31, 2008.

Ministerio de Comercio, Industria y Turismo (República de Colombia). <http://www.mincomercio.gov.co/>
Retrieved on February 8, 2008.

Ministerio de Educación Nacional (República de Colombia). <http://www.mineducacion.gov.co/> Retrieved
on December 17, 2007.

---, "Asesoría Jurídica." Online legal database. <http://www.mineducacion.gov.co/1621/propertyvalue-
31213.html> Retrieved on December 17, 2007.

---, "CERES – Centros Regionales de Educación Superior: Educación Superior al Alcance de Todos."
<http://www.mineducacion.gov.co/1621/article-85678.html> Retrieved on December 18, 2007.

---, "El Desarrollo de la Educación en el Siglo XXI: Informe Nacional de Colombia."
<http://www.ibe.unesco.org/International/ICE47/English/Natreps/reports/ colombia.pdf> Published
in June 2004. Retrieved on October 5, 2007.

---, "Estableciminetos Educativos." <http://www.mineducacion.gov.co/1621/article-89265.html> Retrieved
on November 20, 2007.

---, "Estadísticas del Sector." <http://menweb.mineducacion.gov.co/info_sector/ estadisticas/index.html>
Retrieved on November 20, 2007.

---, "La Revolución Educativa: Plan Sectorial 2002 – 2006." <http://www.mineducacion.gov.co/1621
/articles-85273_archivo_pdf.pdf> Retrieved on October 5, 2007.

---, "La Revolución Educativa: Proyectos Estratégicos." <http://www.mineducacion.gov.co/1621/
propertyvalue-30972.html> Retrieved on October 5, 2007.

---, "Portafolio de Modelos Educativos." <http://www.colombiaaprende.edu.co/html/
mediateca/1607/articles-85440_archivo.pdf> Retrieved on November 20, 2007.

---, "Registro Calificado para Programas de Educación Superior."
<http://web.mineducacion.gov.co/superior/index.htm> Retrieved on December 18, 2007.

Ministerio de Educación Nacional (República de Colombia), Instituto Colombiano para el Fomento de la
Educación Superior (ICFES), and Organización de Estados Iberoamericanos (OEI), "Sistema
Educativo Nacional de la República de Colombia." <http://www.oei.es/quipu/colombia/#sis>
Published in 1993. Retrieved on October 5, 2007.

Ministerio de Protección Social (República de Colombia). <http://www.minproteccionsocial.gov.co/>
Retrieved on February 8, 2008.

Ministerio de Relaciones Exteriores (República de Colombia). <http://www.cancilleria.gov.co/wps/portal>
Retrieved on November 20, 2007.

National Office of Overseas Skills Recognition – Australia (NOOSR), "Country Education Profiles:
Colombia." Printed publication (1993). Online database (2007).
<http://aei.dest.gov.au/AEI/CEP/Default.htm> Retrieved on November 20, 2007.

National Recognition Information Centre for the United Kingdom (UK-NARIC), "International
Comparisons: Colombia." Online database. <http://www.internationalcomparisons.org.uk>
Retrieved on November 20, 2007.

Observatorio de la Universidad Colombiana. <http://www.universidad.edu.co/> Retrieved on December 18,
2007.

Observatorio Laboral y Ocupacional Colombiano, "Clasificación Nacional de Ocupaciones."
<http://observatorio.sena.edu.co/cno.html> Retrieved on February 8, 2008.

---, "Sistema Nacional de Formación para el Trabajo (SNFT)."
<http://observatorio.sena.edu.co/SNFT/snft.html> Retrieved on February 8, 2008.

Office of the Prime Minister, "Backgrounder: Canadian Leadership in Supporting Colombia's Efforts in Improving Peace and Stability." <http://www.pm.gc.ca/eng/media.asp?id=1756> Retrieved on August 27, 2007.

Organización de Estados Iberoamericanos (OEI) and Ministerio de Cultura (República de Colombia), "Informe del Sistema Nacional de Cultura: Colombia." <http://www.oei.es/cultura2/colombia/> Published in 2003. Retrieved on October 5, 2007.

Pontificia Universidad Javeriana. <http://www.javeriana.edu.co/> Retrieved on December 18, 2007.

Presidencia de la República, "Así es Colombia: Símbolos Patrios." <http://web.presidencia.gov.co/asiescolombia/simbolos1.htm> Retrieved August 27, 2007.

Proyecto 6x4 UEALC. <http://www.6x4uealc.org/> Retrieved on December 18, 2007.

Red Colombiana de Facultades de Contaduría Pública. <http://www.funlam.edu.co/redfacont/> Retrieved on January 31, 2008.

Revelo Revelo, José and Carlos Augusto Hernández, "The National Accreditation System in Colombia: Experiences from the National Council of Accreditation (CNA)." <http://unesdoc.unesco.org/images/0013/001310/131066e.pdf> Published in 2003. Retrieved on January 10, 2008.

Rojas Cristancho, José Miguel, "Estructura y Titulaciones de Educación Superior en Colombia." <http://www.oei.es/homologaciones/colombia.pdf> Published in August 2005. Retrieved on December 18, 2007.

Secretaría de Educación de Bogotá. <http://www.sedbogota.edu.co/> Retrieved on February 8, 2008.

Secretaría Distrital de Salud de Bogotá. <http://www.saludcapital.gov.co/> Retrieved on December 18, 2007.

Servicio Nacional de Aprendizaje (SENA). <http://www.sena.edu.co/> Retrieved on December 18, 2007.

Sistema Nacional de Información de Educación Superior (SNIES). <http://200.41.9.227:7777/men/> Retrieved on December 17, 2007.

Skidmore, Thomas E. and Peter H. Smith, "Modern Latin America." Fifth edition. Oxford University Press (New York), 2001.

UN Statistics Division, "United Nations Common Database (UNCDB)." <http://unstats.un.org/unsd/cdb/cdb_list_topics.asp> Retrieved on October 5, 2007.

UNAB Virtual – Universidad Autónoma de Bucaramanga. <http://www.unabvirtual.edu.co/> Retrieved on December 18, 2007.

UNESCO Institute for Statistics Data Centre, "Profiles: Colombia." <http://stats.uis.unesco.org/> Retrieved on August 27, 2007.

UNESCO Instituto Internacional para la Educación Superior en América Latina y el Caribe (IESALC), "La Educación Superior en Colombia: Informe." <http://unesdoc.unesco.org/images/0013/001315/131598s.pdf> Published in April 2002. Retrieved on October 5, 2007.

UNESCO Instituto Internacional para la Educación Superior en América Latina y el Caribe (IESALC) and Universidad Pedagógica Nacional, "La Formación de los Docentes en Colombia: Estudio Diagnóstico." <http://unesdoc.unesco.org/images/0013/001399/139926s.pdf> Published in May 2004. Retrieved on March 19, 2008.

Universidad Católica de Colombia, "Reglamento del Estudiante." <http://www.ucatolica.edu.co/documentos/Reglamento.pdf 2007> Retrieved on November 27, 2007.

Universidad Colegio Mayor de Nuestra Señora del Rosario. <http://www.urosario.edu.co/> Retrieved on December 18, 2007.

Universidad de los Andes. <http://www.uniandes.edu.co/> Retrieved on December 18, 2007.

Universidad EAFIT. <http://www.eafit.edu.co/> Retrieved on February 8, 2008.

Universidad Industrial de Santander. <https://www.uis.edu.co/> Retrieved on December 18, 2007.

Universidad Nacional Abierta y a Distancia (UNAD). <http://www.unad.edu.co/index1.html> Retrieved on December 18, 2007.

Universidad Nacional de Colombia. <http://www.unal.edu.co/> Retrieved on December 18, 2007.

Universidad Pedagógica Nacional. <http://www.pedagogica.edu.co/> Retrieved on March 19, 2008.

Universidad Santo Tomás. <http://www.usta.edu.co/> Retrieved on December 18, 2007.

Uribe, Consuelo, "New Developments in Colombia's Higher Education." <http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/Number42/p20_Uribe.htm> International Higher Education. Number 42. Published in Winter 2006. Retrieved on December 18, 2007.

Wellington, Stanley, "Colombia: A Study of the Educational System of Colombia and a Guide to the Academic Placement of Students from Colombia in Educational Institutions of the United States." American Association of Collegiate Registrars and Admissions Officers (AACRAO), 1984.

Wikipedia, "Colombia." <http://en.wikipedia.org/wiki/Colombia> Retrieved on August 27, 2007. (used as a map source only)

World Atlas. <http://www.worldatlas.com> Retrieved on April 25, 2008. (used as a map source only)

World Bank Group, "Colombia Data Profile." <http://devdata.worldbank.org/external/CPProfile.asp?PTYPE=CP&CCODE=COL> Last updated on July 16, 2007. Retrieved on August 27, 2007.

APPENDICES

Appendix A.

IQAS Placement Recommendations

The placement recommendations are guidelines for international educational credentials and how they compare to Canadian educational standards. They represent benchmark credentials and do not cover all credentials. The fact that a credential is not mentioned in the placement recommendations does not mean it cannot be assessed by IQAS. International credentials that are not covered by the placement recommendations should therefore be referred to IQAS for individual evaluation.

The placement recommendations are advisory in nature, and indicate the general level of a credential in Canadian terms.

Given the different educational philosophies, objectives and program structures in the educational systems of the world, evaluation in terms of direct equivalence to specific Canadian credentials is not possible. It is for this reason that IQAS' placement recommendations are made in terms of 'generally compares' and not 'equivalent'.

When evaluating international credentials IQAS considers the following: the education system of the country concerned; the recognition of the awarding institution, and the level; as well as the length and structure of the program.

When appropriate, IQAS may consider that comparison to a different level of education may more accurately reflect the level of the international credential in Canadian terms. IQAS may also combine two or more credentials if it is considered appropriate.

Credential Name	Entrance Requirements	Length of Study	IQAS Recommendation
Title of **Bachiller** (Baccalaureate)	Completion of Grade 9	2 years	Generally compares to the completion of Grade 12.* * The phrase "with specialized training in xx" should be added if the program incorporated training in a specialized field.
Title of **Técnico Profesional** (Professional Technician)	Title of *Bachiller*, i.e. completion of Grade 11	2.5-3 years	Generally compares to the completion of a postsecondary Certificate with a focus in xx.
Title of **Técnico Profesional Especialista** (Specialist Professional Technician)	Title of *Técnico Profesional* in a related area of study	1-1.5 years	Generally compares to the completion of *one** additional year of technical postsecondary study with a greater specialization in the field. * The number of years should reflect the actual full-time equivalent duration of the program.

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Title of *Tecnólogo/a* (Technologist)	Title of *Bachiller*, i.e. completion of Grade 11	3 years	Generally compares to the completion of a postsecondary Diploma with a focus in xx.
Title of *Tecnólogo/a Especialista* (Specialist Technologist)	Title of *Tecnólogo/a* in a related area of study	1-2 years	Generally compares to the completion of *one** additional year of technical postsecondary study with a greater specialization in the field. * The number of years should reflect the actual full-time equivalent duration of the program.
Title of *Normalista Superior* (Teacher for preschool and elementary school levels)	Title of *Bachiller con Profundización en Educación* (Baccalaureate with a Focus in Education), i.e. completion of Grade 11	2 years	Generally compares to the completion of a postsecondary Diploma with a focus in xx.
Titles of *Profesional* ('Professional'), *Licenciado/a* (Licentiate), *Maestro/a* ('Master'), and other undergraduate degree titles	Title of *Bachiller*, i.e. completion of Grade 11	4-5 years	Generally compares to the completion of a four-year Bachelor's Degree with a focus in xx.
Title of *Odontólogo/a* (Dentist)	Title of *Bachiller*, i.e. completion of Grade 11	5 years	Generally compares to the completion of a first professional university degree in dentistry, preceded by preprofessional university study in science. *Note: The dentistry degree program in Colombia usually requires five years of continuous study in the Faculty of Dentistry (Odontology). In Canada, dentistry degrees, in general, require at least two years of pre-professional university study followed by four years of professional dentistry study.*
Title of *Licenciado/a* (Licentiate; i.e. undergraduate degree in education)	Title of *Bachiller*, i.e. completion of Grade 11	4-5 years	Generally compares to the completion of a four-year Bachelor's Degree* with a focus in xx and courses in education. *If the program completed included a sufficient number of education courses, it may be considered generally comparable to the completion of a four-

			year Bachelor of Education Degree with a focus in xx.
Title of *Ingeniero/a* (Engineer)	Title of *Bachiller*, i.e. completion of Grade 11	5 years	Generally compares to the completion of a four-year Bachelor of Science Degree with a focus in xx engineering.
Title of *Abogado/a* (Lawyer)	Title of *Bachiller*, i.e. completion of Grade 11	5 years	Generally compares to the completion of a first professional university degree in law (as practiced in the Republic of Colombia), preceded by preprofessional university study. *Note: The law degree program in Colombia usually requires five years of continuous study in the Faculty of Law. In Canada, the usual pattern of study in law requires at least two years of preprofessional university study followed by three years of professional law study.*
Title of *Médico* (Physician) or *Médico y Cirujano* (Physician and Surgeon)	Title of *Bachiller*, i.e. completion of Grade 11	6 years (5 years of theoretical and practical instruction + 1 year of rotation-based internship)	Generally compares to the completion of a first professional university degree in medicine, preceded by preprofessional university study in science. *Note: The medical degree program in Colombia usually requires five years of continuous study in the Faculty of Medicine followed by a one-year clinical internship. In Canada, medical degrees, in general, require at least two years of university study in science followed by four years of professional medical studies.*
Title of *Enfermera/o* (Nurse)	Title of *Bachiller*, i.e. completion of Grade 11	4-5 years	Generally compares to the completion of a four-year Bachelor of Science Degree with a focus in nursing.
Title of *Fisioterapeuta* (Physiotherapist) or *Terapeuta Ocupacional* (Occupational Therapist)	Title of *Bachiller*, i.e. completion of Grade 11	4-5 years	Generally compares to the completion of a four-year Bachelor of Science Degree with a focus in physiotherapy/ occupational therapy.
Title of *Médico Veterinario* (Veterinarian)	Title of *Bachiller*, i.e. completion of Grade 11	5 years	Generally compares to the completion of a first professional university degree in veterinary medicine, preceded by preprofessional university study in science.

			Note: Veterinary medicine degrees in Colombia generally require five years of continuous study in the Faculty of Veterinary Medicine. In Canada, veterinary medicine degrees require in general at least two years of undergraduate study in science followed by four years of professional veterinary medical studies.
Title of *Especialista* (Specialist)	Completion of an undergraduate degree in a related area of study	1-1.5 years; up to 5 years for medical specializations	Generally compares to the completion of a graduate Diploma with a focus in xx.
Title of *Magíster* (Master)	Completion of an undergraduate degree, normally in a related area of study	2 years	Generally compares to the completion of a two-year Master's Degree with a focus in xx.
Title of *Magíster en Administración (de Negocios/Empresas)* (Master of Business Administration, MBA)	Completion of an undergraduate degree	2 years	Generally compares to the completion of a Master of Business Administration (MBA) Degree.
Title of *Doctor* (Doctor)	Completion of an undergraduate degree, normally in a related area of study; most applicants are admitted based on a Master's Degree	2-3 years following a Master's Degree; 4-5 years following an undergraduate degree	Generally compares to the completion of a Doctor of Philosophy (Ph.D.) Degree with a focus in xx.

**Comparison of the main topics addressed in
the Five-Year Education Plan for the Years 1982-1986
and the Ten-Year Education Plans for the Years 1996-2005 and 2006-2015**

1982-1986	1996-2005	2006-2015
– modernization, decentralization, and participatory planning – coordination of the various sectors – qualitative change – expanded opportunities for access to education and student retention – widespread participation of the community – scientific and technological development – cultural development, including sports and recreation – efficient administration of financial resources	– improved quality, coverage, and diversification of educational offer at all levels – democracy, civic participation, and peaceful coexistence – national unity and identity with respect for cultural diversity – scientific and technological knowledge as tools for sustainable development and environmental conservation – elimination of factors leading to inequity in the access and quality of education – an organic and more integrated national system of education – improved management at all administrative levels – increased recognition and professionalization of teaching	– education for the 21st century (e.g. continuous assessment, research, technological knowledge, foreign language education, vocational skills) – increased modernization and integration of science and technology (e.g. Internet and other information and communication technologies) – more and better investment in education – continued reinforcement of values like peace, coexistence, and civic responsibilities – equity in terms of access to schooling, retention, and quality of education received – external factors influencing school education – early childhood development and preschool education – improved leadership, management, transparency, and accountability in the education sector – revision of pedagogical approaches to allow more active student participation – continued professionalization of teaching

Appendix C.

Distribution of administrative duties pertaining to education at various levels

a) School education

Administrative level and representative bodies	Core responsibilities
National: **Ministry of National Education** (*Ministerio de Educación Nacional*) – headed by the Minister of Education (*Ministro de Educación*); the Vice Minister of Preschool, Basic, and Upper Secondary Education (*Viceministro de Educación Preescolar, Básica y Media*); and the Vice Minister of Higher Education (*Viceministro de Educación Superior*) **Congress of the Republic** (*Congreso de la República*) – only for passing legislation	− Overall supervision of the entire system of education − Development of national norms, legislation, policies, and plans − Financing of public education − Setting quality standards for basic competencies − Provision of information about Colombia's system of education
Departmental/District/Municipal: **Secretariats of Education** (*Secretarias de Educación Departamentales/Distritales/ Municipales*)	− Policy implementation and supervision of the delivery of education at the respective level − Advisory assistance with the design and development of curricula by the institutions within the secretariat's jurisdiction − Distribution of educational funding − Development of regional legislation to complement national regulations − Licensing of institutions providing formal and non-formal education
Institutional: **Individual schools** – headed by a principal (*rector*), an executive committee (*consejo directivo*), and an academic committee (*consejo académico*)	− Provision of educational services − Policy implementation and supervision of the delivery of education at the institutional level − Design and development of detailed curricula for the institution − Annual evaluation of the institution and of the performance of the teaching and administrative staff
Other bodies: **Education Boards** (*Juntas de Educación*) **Educational Fora** (*Foros Educativos*) **COLCIENCIAS** – Colombian Institute for the Development of Science and Technology "Francisco José de Caldas" – (*Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología "Francisco José de Caldas"*) **COLCULTURA** – Colombian Institute of Culture (*Instituto Colombiano de Cultura*) **COLDEPORTES** – Colombian Institute of Sport (*Instituto Colombiano de Deporte*)	− Boards: carrying out specific advisory, technical, and administrative functions pertaining to education at the local, regional, or national level − Fora: bringing together the educational community in order to critically reflect on issues pertaining to education and make recommendations for improvement at the local, regional, or national level − Institutes: participating in curriculum design and promoting other educational activities

b) Higher education

Institutions and bodies	Core responsibilities
Ministry of National Education (*Ministerio de Educación Nacional*) – postsecondary education division headed by the Vice Minister of Higher Education (*Viceministro de Educación Superior*) **Congress of the Republic** (*Congreso de la República*) – only for passing legislation	− Overall supervision of the entire system of education − Development of national norms and legislation − Financing of public institutions − Quality assurance at the national level − Provision of information about Colombia's system of education
Postsecondary institutions – headed by a president (*rector*), an executive committee (*consejo superior universitario*), and an academic committee (*consejo académico*)	− Provision of educational services − Policy implementation and supervision of the delivery of education at the institutional level − Design and development of programs − Continuous internal evaluation and quality assurance
ICFES – Colombian Institute for the Promotion of Higher Education (*Instituto Colombiano para el Fomento de la Educación Superior*)	− Established in 1968; originally responsible for regulation and inspection of all matters pertaining to higher education − Development and administration of state examinations − Validation of foreign credentials
CESU – National Council of Higher Education (*Consejo Nacional de Educación Superior*)	− Main policy-making body in higher education − Works closely with the ministry; oversees CNA and CONACES
CNA – National Council of Accreditation (*Consejo Nacional de Acreditación*)	− Established in 1992 to develop and implement accreditation mechanisms for higher education programs and institutions
CONACES – National Cross-Sector Commission for the Quality Assurance of Higher Education (*Comisión Nacional Intersectorial de Aseguramiento de la Calidad de la Educación Superior*)	− Established in 2003 to ensure that all higher education programs and institutions meet basic quality requirements − Responsible for the initial evaluation and authorization of institutions and programs
ASCUN – Colombian Association of Universities (*Asociación Colombiana de Universidades*)	− Non-governmental and non-profit association established in 1957 − Promotes a good working relationship among the universities and between the institutions and the government − Universities must meet numerous quality standards before they become members
ICETEX – Colombian Institute of Educational Credit and Technical Studies Abroad (*Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior*)	− Provides educational loans and scholarships for Colombian students attending national and international institutions of higher education

COLCIENCIAS – Colombian Institute for the Development of Science and Technology "Francisco José de Caldas" (*Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología "Francisco José de Caldas"*)	− Promotes educational activities related to science and technology
OML – Labour Market Observatory (*Observatorio del Mercado Laboral*), also called the Labour Observatory for Education (*Observatorio Laboral para la Educación*)	− Collects and disseminates labour market information to assist institutions in program design and students in decision making

c) Technical and vocational education
(at the level of education for employment and human development)

Institutions and bodies	Core responsibilities
SENA – National Apprenticeship Service (*Servicio Nacional de Aprendizaje*) – headed by representatives of the ministries listed below and other institutions from the public and private sectors **Congress of the Republic** (*Congreso de la República*) – only for passing legislation	− Established in 1957; works closely with the ministries listed below and with private sector enterprises − Develops policy and programs pertaining to technical and vocational training; delivers technical and vocational education at its centres − Responsible for the National System of Education for Employment (*Sistema Nacional de Formación para el Trabajo*) or SNFT, aimed at fostering cooperation among all institutions involved in the provision of technical and vocational education − Administers several non-educational programs promoting socio-economic development of the country
Ministry of National Education (*Ministerio de Educación Nacional*)	− Assists SENA with policy development, program design, and quality assurance
Ministry of Social Protection (*Ministerio de Protección Social*) – created in 2002 by joining the Ministry of Health (*Ministerio de Salud*) with the Ministry of Labour and Social Security (*Ministerio de Trabajo y Seguridad Social*) **National Executive Committee for Development of Human Resources in Health** (*Comité Ejecutivo Nacional para el Desarrollo de los Recursos Humanos en Salud*)	− Verification of quality and issuing of authorizations for programs in assistant health care professions
Ministry of Commerce, Industry, and Tourism (*Ministerio de Comercio, Industria y Turismo*)	− Assists SENA with policy and program development
Departmental/District/Municipal Secretariats of Education (*Secretarias de Educación Departamentales/Distritales/ Municipales*)	− Licensing of institutions providing technical and vocational education − Verification of the quality of programs and issuing of program registrations − Provision of information to the public about technical and vocational programs available regionally
Educational institutions – headed by a director (*director*) and an academic coordinator (*coordinador académico*)	− Provision of educational services − Policy implementation and supervision of the delivery of education at the institutional level
Private enterprises	− Provision of funding for SENA programs through taxation − Assist SENA with policy and program development − Provision of apprenticeships

Sample school curriculum with hourly distribution
(Colegio Nueva York, Bogotá, 2007)
(Source: http://www.colegionuevayork.edu.co/proyecto_educativo/intensidad_horaria_cny.doc)

Subject area	Preschool (Transition Grade only)	Elementary (Grades 1-5)	Lower Secondary (Grades 6-9)	Upper Secondary (Grades 10-11)
Mathematics and geometry	4			
Mathematics		6(1)* 5(2-5)	4	4
Geometry (1st semester); Statistics and probabilities (2nd semester)		2	2	2
Writing	6			
Spanish language				
− Spanish		5	6(6-7) 5(8-9)	4
− Orthography		0	1	1
− Reading		1	0	0
Natural sciences	2	4	3	
Social sciences	2	3(1) 4(2-5)	4	1
Philosophy; Economic and political sciences				3
Specialization				3
Physics			2 (8-9)	4
Chemistry			1	4
English	8	8	8	7
Technology and computing	1	1	1	1
Artistic education				
− Art	2	1	2(6-7) 1(8-9)	1
− Music	2	1	0	0
Physical education, recreation, and sports	2	2	2	2
Ethics and values	1	1	1	1
Religious education	1	1	1	1
Professional orientation	1	1	1	1
Extra classes	3	3	3	
TOTAL	**35**	**40**	**40**	**40**

* The numbers in parentheses correspond to grades. For example, "6(1) 5(2-5)" means that the subject is taught six hours per week in Grade 1 and five hours per week in Grades 2 through 5.

Appendix E.

Duration of various undergraduate degree programs at different Colombian institutions*
(Source: Institutional websites, November 2007)

Undergraduate degree program	Universidad Nacional de Colombia	Universidad de los Andes	Pontificia Universidad Javeriana	Universidad Colegio Mayor de Nuestra Señora del Rosario	Universidad Santo Tomás	Universidad Industrial de Santander
Accounting/ Public Accounting	10 sem	-	8-10 sem 160 cr	-	10 sem	-
Business Administration	10 sem	8 sem 137 cr	8-10 sem 160 cr	10 sem 208 cr	9 sem	-
Law	10 sem	10 sem 180 cr	10 sem 168 cr	10 sem 218 cr	10 sem 161 cr	10 sem 203 cr
Mechanical Engineering	10 sem	8 sem 137 cr	-	-	10 sem	10 sem 190 cr
Medicine**	12 sem	12 sem 240 cr	12 sem 268 cr + internship	12 sem 263 cr	-	12 sem 210 cr + internship
Dentistry	10 sem	-	8-10 sem 171 cr	-	-	-
Physiotherapy	8 sem 157 cr	-	-	10 sem 170 cr	-	10 sem 188 cr

*   *Sem* stands for *semesters*, and *cr* stands for *credits*.
** The last two semesters of all programs in medicine consist of clinical internships.

Note: The duration of programs and number of credits can change from year to year. The most up-to-date information can be obtained directly from the institutions.

Appendix F.

Most common medical specializations/residency training and typical length of programs in Colombia

Specialization	Duration (in semesters)
Internal Medicine (*Medicina Interna*)	6
Paediatrics (*Pediatría*)	6
Gynaecology and Obstetrics (*Ginecología y Obstetricia*)	6-8
Anaesthesiology and Reanimation (*Anestesiología y Reanimación*)	6
General Surgery (*Cirugía General*)	6-8
Ophthalmology (*Oftalmología*)	6-8
Orthopaedics and Traumatology (*Ortopedia y Traumatología*)	8
Radiology and Imaging (*Radiología e Imágenes*)	6-8
Neurosurgery (*Neurocirugía*)	8-10
Otorhinolaryngology (*Otorrinolaringología*)	6-8
Psychiatry (*Psiquiatría*)	6
Urology (*Urología*)	6-8
Paediatric Surgery (*Cirugía Pediátrica*)	4-6
Cardiovascular Surgery (*Cirugía Cardiovascular*)	4-6
Plastic and Maxillofacial Surgery (*Cirugía Plástica y Maxilofacial*)	8-10
Dermatology (*Dermatología*)	6-8
Pain and Palliative Care (*Dolor y Cuidado Paliativo*)	2-6
Physical Medicine and Rehabilitation (*Medicina Física y Rehabilitación*)	4-6

Appendix G.

Sample regulated professions in Colombia (2007)

Business management, economy, and administration:

- Agricultural administrator (*Aministrador de empresas agropecuarias*, *Administrador agrícola*, or *Administrador agropecuario*)
- Business administrator (*Administrador de empresas* or *Administrador de negocios*)
- Economist (*Economista*)
- Public accountant (*Contador público*)
- Public administrator (*Administrador público*)

Health-related professions:

- Anesthesiologist (*Anestesiólogo*)
- Bacteriologist (*Bacteriólogo*)
- Chemical pharmacist (*Químico farmacéutico*)
- Clinical laboratorian (*Laboratorista clínico*)
- Dentist (*Odontólogo*)
- Microbiologist (*Microbiólogo*)
- Nurse (*Enfermera*)
- Nutritionist and dietician (*Nutricionista y dietético*)
- Optometrist (*Optometrista*)
- Pharmacist (*Farmacéutico*)
- Pharmacy technologist (*Tecnólogo en regencia de farmacia*)
- Phonoaudiologist (*Fonoaudiólogo*)
- Physician and surgeon (*Médico y cirujano*)
- Physiotherapist (*Fisioterapeuta*)
- Radiologist (*Radiólogo*)
- Technical surgical instrumentalist (*Instrumentalista técnico quirúrgico*)
- Veterinarian (*Médico veterinario*)

Engineering-related professions and assistant occupations*:

- Agricultural engineer (*Ingeniero agrícola*)
- Agronomical engineer (*Ingeniero agronómico*)
- Architect (*Arquitecto*)
- Chemical engineer (*Ingeniero químico*)
- Construction technician (*Técnico constructor*)
- Electrical engineer (*Ingeniero eléctrico*)
- Electrical technologist (*Tecnólogo en electricidad*)
- Electrics technician (*Técnico electricista*)
- Electromechanical technologist (*Tecnólogo en electromecánica*)
- Electronic technologist (*Tecnólogo en electrónica*)
- Fishing engineer (*Ingeniero pesquero*)
- Forest engineer (*Ingeniero forestal*)
- Geologist (*Geólogo*)
- Industrial designer (*Diseñador industrial*)
- Mechanical engineer (*Ingeniero mecánico*)
- Naval engineer (*Ingeniero naval*)
- Petroleum engineer (*Ingeniero de petróleos*)
- Topographer (*Topógrafo*)
- Transportation and road engineer (*Ingeniero de transportes y vías*)

Other professions:

- Agrologist (*Agrólogo*)
- Agronomist (*Agrónomo*)
- Bibliotechnologist (*Bibliotecnólogo*)
- Biologist (*Biólogo*)
- Chemist (*Químico*)
- Cosmetologist (*Cosmetólogo*)
- Family development professional (*Profesional en desarrollo familiar*)
- Geographer (*Geógrafo*)
- International relations professional (*Profesional en relaciones internacionales*) and related professions
- Lawyer (*Abogado*)
- Licentiate in education sciences (*Licenciado en ciencias de la educación*), all specializations
- Photography technician (*Técnico de fotografía*)
- Photography technologist (*Tecnólogo de fotografía*)
- Secretary (*Secretaria*)
- Social worker (*Trabajador social*)
- Statistician (*Estadístico*)
- Travel agent (*Agente de viajes*)
- Tourist guide (*Guía de turismo*)

* Assistant occupations in engineering would include professional technicians and technologists in the following fields:

- civil works (*en obras civiles*)
- laboratory work (*laboratoristas*)
- construction (*constructores*)
- topography (*en topografía*)
- mining (*en minas*)
- drafting for engineering purposes (*delineantes en ingeniería*)
- systems or computing (*en sistemas o en computación*)
- system analysis (*analistas de sistemas*)
- programming (*programadores*)
- food (*en alimentos*)
- industry (*industriales*)
- hydraulics and sanitation (*hidráulicos y sanitarios*)
- teleinformatics (*teleinformáticas*)
- agroindustry (*agroindustriales*)

as well as

- master builders/foremen (*maestros de obra*) in construction with documented 10 years of experience.

Professional registration and licensing bodies for selected professions in Colombia (2007)

Public Accountancy (*Contaduría Pública*)
> Professional licenses are issued by the [Central Board of Accountants](#) (*Junta Central de Contadores*), affiliated with the Ministry of National Education.

Business Administration (*Administración de Empresas/Negocios*)
> Professional licenses are issued by the [Professional Council of Business Administration](#) (*Consejo Profesional de Administración de Empresas*), an administrative unit of the Ministry of Commerce, Industry and Tourism (*Ministerio de Comercio, Industria y Turismo*), formerly known as the Ministry of Economic Development (*Ministerio de Desarrollo Económico*).

Dentistry (*Odontología*)
> Professional licenses are issued by regional Secretariats or Directorates of Health (*Secretarias o Direcciones de Salud*), acting on behalf of the Ministry of Social Protection (*Ministerio de Proteccíon Social*), which encompasses the former Ministry of Health (*Ministerio de Salud*). See Notes 1 and 2 for additional information.

Engineering (*Ingeniería*)
> Professional licenses are issued by the following councils and ministry:
> - [Professional Council of Electrical and Mechanical Engineering and Related Professions](#) (*Consejo Profesional de Ingenierías Eléctrica, Mecánica y Profesiones Afines*) – for electrical, mechanical, nuclear, metallurgical, telecommunications, aeronautical, electronic, electromechanical, and naval engineers,
> - [Professional Council of Chemical Engineering](#) (*Consejo Profesional de Ingeniería Química*) – for chemical engineers,
> - [Professional Council of Petroleum Engineering](#) (*Consejo Profesional de Ingeniería de Petróleos*) – for petroleum engineers,
> - [Professional Council of Transport and Road Engineering](#) (*Consejo Profesional de Ingeniería de Transportes y Vías*) – for transport and road engineers,
> - [Ministry of Agriculture and Rural Development](#) (*Ministerio de Agricultura y Desarrollo Rural*) – for forest, agricultural, and agronomic engineers,
> - Professional Council of Fishing Engineering (*Consejo Profesional de Ingeniería Pesquera*) – for fishing engineers, and
> - [National Professional Council of Engineering](#) (*Consejo Profesional Nacional de Ingeniería*) – for all remaining engineers.

> All of the above councils work in close cooperation with the Ministry of National Education and other relevant ministries.

Law (*Derecho*)
> Professional licenses are issued by a regional branch (*seccional*) of the [Superior Council of the Judiciary](#) (*Consejo Superior de la Judicatura*), affiliated with the Ministry of Justice (*Ministerio de Justicia*).

Medicine (*Medicina*)
> In the past, professional licenses were issued to physicians by the regional Secretariats or Directorates of Health (*Secretarias o Direcciones de Salud*), representing the Ministry of Health (*Ministerio de Salud*). As of 2002, physicians can apply for professional registration either directly to the General Directorate of Analysis and Policy of Human Resources (*Dirección General de Análisis y Política de Recursos Humanos*) or to the existing regional Secretariats or Directorates of Health, both of which are affiliated with the Ministry of Social Protection (*Ministerio de la Protección Social*). See Notes 1 and 2 for additional information.

Nursing (*Enfermería*)

Professional licenses are issued to nurses by the regional Secretariats or Directorates of Health (*Secretarias o Direcciones de Salud*), representing the former Ministry of Health (*Ministerio de Salud*) and the current Ministry of Social Protection (*Ministerio de la Protección Social*). Professional registration is often solicited through the [National Association of Nurses of Colombia](#) (*Asociación Nacional de Enfermeras de Colombia*). See Notes 1 and 2 for additional information.

Physiotherapy (*Fisioterapia*)

Professional licenses are issued to physiotherapists by the regional Secretariats or Directorates of Health (*Secretarias o Direcciones de Salud*), representing the former Ministry of Health (*Ministerio de Salud*) and the current Ministry of Social Protection (*Ministerio de la Protección Social*). Officially, the National Professional Council of Physiotherapy (*Consejo Profesional Nacional de Fisioterapia*) was established in 1999, but there is no information available about its activities.

Notes:

1. Obligatory Social Service (*Servicio Social Obligatorio*)

The completion of obligatory social service (*servicio social obligatorio*) is a unique requirement for students who graduated from technological and undergraduate programs in bacteriology, dentistry, medicine, and nursing and who are applying for a professional license. In order to fulfill this requirement, the recent graduates must spend 6-12 months at officially pre-approved locations in the rural and disadvantaged areas of the country. The obligatory social service is seen as a contribution of health care professionals to Colombia's overall development. It is also a way for them to get acquainted with the realities of providing health care under difficult circumstances. The graduates can complete their service by providing health care services, teaching the locals about health issues, or conducting research on relevant topics. If the number of available graduates exceeds the number of health care professionals needed, the selection is based on a draw.

2. Recent reforms for medical professions

Decree 1164, enacted in October 2007, brought significant changes to the ways in which medical professions are licensed and exercised in Colombia:

- It established the National Council of Human Talent in Health (*Consejo Nacional del Talento Humano en Salud*), a government body in charge of planning, regulating, and supervising all activities pertaining to the education of health care professionals and the exercise of medical professions in Colombia.
- It expanded the obligatory social service to include graduates from higher education programs in all medical fields (not only bacteriology, dentistry, medicine, and nursing).
- It created a Unique National Registry (*Registro Único Nacional*), which is to serve as one single registry for all medical professionals and health care support staff.
- It delegated certain public responsibilities of the Ministry of Public Protection (e.g., professional registration, issuing of professional licenses) to the professional colleges (*colegios profesionales*) in each medical field (e.g., *Colegio Médico Colombiano*).
- It decreed a process of certification and periodic re-certification for all medical professionals and health care support staff. Details of this point remain to be defined by additional decrees.

Thus far, the reforms introduced by Decree 1164 are largely theoretical and are being implemented gradually.

**Sample upper secondary and postsecondary diploma cycle curricula
for training preschool and elementary school teachers in humanities and languages
with weekly hours of instruction (Escuela Normal Superior de Bucaramanga, 2008)**
(Source: http://www.normalbucaramanga.edu.co/)

Upper secondary school program (*Bachillerato con Profundización en Educación*)		Postsecondary diploma cycle in teacher training (*Ciclo Complementario*)	
Grade 10	**Grade 11**	**Semesters I & II (Grade 12)**	**Semesters III & IV (Grade 13)**
Fundamentals of pedagogy 2 hrs	History of the lives of teachers 2 hrs	Pedagogy (19th – 20th century) 3 hrs	Pedagogy (20th century – present) 2 hrs
		Theory and curriculum design 2 hrs	Theory and curriculum design 4 hrs
Psychology of preschool children 2 hrs	Self-recognition 1 hr	The child and the school 4 hrs	Special educational needs 4 hrs
Physics 4 hrs		Teaching methods for mathematics 4 hrs	
Chemistry 4 hrs			
Trigonometry 4 hrs	Calculus 4 hrs		
Social sciences, history, geography, political constitution and democracy 2 hrs		Teaching methods for social sciences 4 hrs	Teaching methods for natural sciences 4 hrs
Philosophy 2 hrs			
Economic and political sciences 2 hrs			
Society, culture, and education 1 hr	Educational activities for the city 2 hrs	Colombian sign language 1 hr	
		Drama 2 hrs	Children's literature 3 hrs
English language 4 hrs		Teaching methods for English language 4 hrs	
Spanish language 4 hrs		Teaching methods for Spanish language 4 hrs	
Practicum: Preschool education workshop 3 hrs		Practicum: Pedagogical laboratory 5 hrs	
Teaching aids and media 1 hr			
Children's music 1 hr		Teaching methods for arts education (drawing and music) 3 hrs	
Physical education 2 hrs		Teaching methods for physical education 2 hrs	
Education in ethics and human values 1 hr		Teaching methods for ethics 2 hrs (only in semester I)	
Religious education 1 hr		Teaching methods for religious education 2 hrs (only in semester II)	
Technology 1 hr			Teaching methods for technology 3 hrs
Total: 40-41 hours of instruction per week			

Appendix J.

Basic curricular structure of undergraduate programs in education
(Source: UNESCO IESALC and Universidad Pedagógica Nacional, 2004:70.)

Time period	Areas of study
Semesters I – III (or I – IV)*	• Oral and written communication • Fundamentals of pedagogy and teaching • History of education and pedagogy • Education – society – values • Introduction to scientific knowledge, philosophy, epistemology • Fundamentals of research • General psychology • Pedagogical practica (only for some programs)
Semesters IV – VII (or V – VIII)*	• Specialization/subject area focus • Teaching methodology associated with the discipline • Curriculum and evaluation • Research methodology • Psychology of learning • Computing and technology for teaching purposes • Elective subjects • Pedagogical practica (for most programs)
Semesters VIII – X (or IX – XII)*	• Politics and educational legislation • Final project (in most cases related with the pedagogical practica) • Pedagogical practica

* The time period indicated in parenthesis applies to undergraduate programs in education completed as evening study or through distance education.

ENDNOTES

[i] CIDA, 2007.

[ii] Colombia Info, 2007.

[iii] CIA, 2007. These numbers should be viewed more as estimates than exact percentages since census data in Colombia does not take ethnicity into account. The categories also seem to exclude some immigrant communities that have established themselves in Colombia in the 20th century.

[iv] UNESCO Institute for Statistics Data Centre, 2007. The average for Latin America and the Caribbean is 89.9%.

[v] After the secession of Venezuela and Ecuador from Greater Colombia, the united territories of Colombia and Panama became known as the Republic of New Granada. The republic changed its name again to United States of Colombia in 1863 and finally to Republic of Colombia in 1886.

[vi] Other left-wing movements include the ELN (*Ejército de Liberación Nacional* – National Liberation Army), the EPL (*Ejército de Liberación Popular* – People's Liberation Army), and the M-19 (*Movimiento 19 de Abril* – April 19th Movement).

[vii] Formed in 1997, the AUC (*Autodefensas Unidas de Colombia* – United Self-Defense Forces of Colombia) has been the largest right-wing paramilitary group and has served as an umbrella organization for similar regional organizations.

[viii] World Bank Group, 2007. By comparison, in 2005 the GNI per capita for Canada was US$ 32,600 (CIDA, 2007).

[ix] Foreign Affairs and International Trade Canada, 2007.

[x] CIC, 2007.

[xi] OEI and Ministerio de Cultura, 2003.

[xii] UNESCO IESALC, 2002:9.

[xiii] Ministerio de Educación Nacional, ICFES, and OEI, 1993:6.

[xiv] Exact definitions of the education levels can be found in the "Definitions" section of the UN Common Database website.

[xv] UNESCO IESALC, 2002:9-10.

[xvi] ICFES, 2002:xxi.

[xvii] Cárdenas S., 2006:11.

[xviii] SNIES, 2007.

[xix] Uribe, 2006.

[xx] SNIES, 2007.

[xxi] Ibid.

[xxii] UNESCO IESALC and Universidad Pedagógica Nacional, 2004:34.

[xxiii] Corpoeducación et al., 2006:22.