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DEPENDENCY AND EDUCATION IN COLOMBIAN UNDERDEVELOPMENT

by

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All views, interpretations, recommendations, and conclusions are those of the author and not necessarily those of supporting or cooperating organizations.

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PREFACE: TOWARD A REDEFINITION OF SOCIOLOGY

Latin American sociology has for too long been dependent upon definitions of problems, techniques, and approaches formulated by sociology in developed countries. These formulas are not applicable in a framework where underdevelopment is no longer categorized as backwardness or as an earlier stage of growth (with later stages, based on the advanced industrial countries' model, to come), but instead seen as one pole in a dialectical relationship between developed and underdeveloped countries. Consequently, from a sociologist's perspective any analysis of underdevelopment must be differentiated from (though intimately related to) analyses rooted in developed countries. For each underdeveloped society, then, there is an "underdeveloped sociology"; for each dependent society, a "dependent sociology."

Latin American sociologists and social scientists are now assuming responsibility for this task. The question they ask is how is the dependent society affected and conditioned by its relationship to highly industrialized countries. Thus, dependency becomes a fundamental "variable" in the new Latin American sociology. At this point, the political implications of social science research in Latin America become inescapable.

Specifically, this paper addresses itself to the issue of education and dependency in Colombia, arguing against the notion that education is a prime factor in social mobility and development. Data on educational resources as distributed by class and along rural/urban and regional lines are used to evaluate the processes of social mobility, urbanization, and industrialization, always within the theoretical context of dependency and the role education plays within that dependency.

Chapter I defines dependency in terms of its relationship to underdevelopment and the processes of industrialization and urbanization in Colombia. Chapter II addresses itself specifically to the relationship between the Colombian educational structure and dependency, stressing ties between education and social mobility (or lack thereof), urbanization, and class. In Chapter III, a detailed statistical breakdown of university student distribution among Colombia's five regions is used to demonstrate further the ties between educational resources and development patterns fostered by extranational interests through investment. Chapter IV points out how the educational structure created by dependency as outlined in the first three chapters has contributed to internal contradictions, contradictions which have led to certain clashes in class interests and the attendant growth of political, economic, and social tensions.

CHAPTER I: UNDERDEVELOPMENT AND DEPENDENCY

Part 1: Dependency: A Definition

The failure of the "development decade" of the fifties is now generally accepted by most social scientists in Latin America. This failure has led to a revision of the social sciences on which development policies of the period were based. Development theories based on concepts such as modernization, economic, political, and social internal obstacles to development, dualism and feudal characteristics of the social structure, psychological deficiencies of the underdeveloped personality (need achievement) were re-examined in the light of the growth of underdevelopment. This re-examination has led to the notion that dependency is the key factor in Latin American underdevelopment.

In order to understand how dependency functions as a key factor in underdevelopment, classic studies of imperialism must be updated to include detailed analyses of social structures in dominated societies, structures which are conditioned by the imperialist relationship and which in turn are instrumental in maintaining that relationship.

Ianni asserts that imperialism unleashes a series of internal processes in the subordinate society.

In other terms, imperialism is not a process characterizing only the external relationships between the metropolitan nation and the colonial or dependent peoples. As a basically political-economic process it is also revealed internally, causing the unfolding of derived processes such as concentration and centralization of capital, lumpen proletarianization of the surplus work force, fragmentation of the working class into racial groups and diverse professional categories, division of the country in backward and prosperous regions, etc....¹

In this form, dependency is conceived as a conditioning process, that is, a situation which determines the possibilities of action for the dependent society. In the words of Theotonio dos Santos, dependency is

a situation in which the economy of a certain group of countries is conditioned by the development and expansion of another economy to which their own economy is subjected; [this is] a historical condition which shapes a certain structure of the world economy such that it favors some countries to the

¹Octavio Ianni, Imperialismo y Cultura de la Violencia en América Latina (Mexico, Siglo XXI, 1970), pp. 10-11.

detriment of others, and limits the development possibilities of the subordinate economies...²

Thus, the process of development in dependent societies does not reflect the needs of that society but rather the needs of the dominant society.

Susanne Bodenheimer has summarized the phenomenon of structural dependency as follows:

Nevertheless, it would be an oversimplification to maintain that the international system causes underdevelopment directly; it does so indirectly, by generating and reinforcing within Latin America an infrastructure of dependency. What is the infrastructure (internal structures) of dependency? The international system affects development in Latin America by means of certain institutions, social classes and processes (e.g., industrial structure, socioeconomic elites, urbanization, and so on). These aspects of Latin American society become parts of the infrastructure of dependency when they function or occur in a manner that responds to the interests or needs of the dominant powers in the international system, rather than to national interests or needs. It is through the infrastructure of dependency that the international system becomes operative within Latin America. And it is through the infrastructure of dependency that the legacy of Latin America's integration into the international system is transmitted and perpetuated within Latin America, thereby limiting the possibilities for development.³

Dependency is thus defined as a conditioning process creating and/or reinforcing internal structures in the dominated society necessary to the maintenance of imperialism. At the same time, we must point out that dependency, by reinforcing internal contradictions in the dependent society, may create

²Theotonio dos Santos, "La Crisis de la teoría del desarrollo y las relaciones de dependencia en América Latina," en H. Jaguaribe et. al., La dependencia político económica de América Latina (Mexico, Siglo XXI, 1969), p. 180.

³Susanne Bodenheimer, "Dependency and Imperialism," NACLA News Letter, Vol. IV, No. 3, May-June 1970.

its own antithesis leading to changes in the structure and character of dependency.⁴

Part 2: Industrialization and Dependency

One basic distinction in the economic history of Latin America is the analysis of what has been called the shift from an "externally oriented growth" towards an "internally oriented growth." This distinction refers to economies based on the export of agricultural raw materials and the import of consumption goods, as opposed to economies in the process of industrialization through import substitution, the creation of an internal market for these products, and the import of intermediate and productive goods. In this distinction lies the heart of the "new dependency" of the Latin American economies. In effect, once government economists had visualized, on the one hand, the need for industrialization and had, on the other, enough capital accumulation to start the process, an effort was made to implement policies of import substitution in order to start the industrialization process and diminish the dependency of exports based only on the primary or agricultural sector. This import substitution policy in turn gave impetus to "the urbanization of the economy" since a substantial amount of the capital saved in the agricultural sector was invested in the industrial urban sector.⁵ It was hoped that the stage of externally

⁴For a discussion of the concept of dependency and the different forms it has taken in Latin American Sociology see: Pablo Gonzales, Sociología de la Explotación (México, Siglo XXI, 1970); Theotonio dos Santos, Lucha de Clases y Dependencia en América Latina (Medellín, Oveja Negra, 1970); Socialismo o Fascismo, Dilema Latinoamericana (Santiago, Preense Latinoamericana, 1969); dos Santos y otros, La Crisis del Desarrollismo y la Nueva Dependencia (Lima, Moncloa, 1969); Antonio García, La Estructura de las Clases Sociales en las Sociedades Agrarias (México, Siglo XXI, 1969); Octavio Ianni, op. cit.; Ruy Mauro Marini, Subdesarrollo y Revolución (México, Siglo XXI, 1969); F. H. Cardoso y otros, América Latina: Ensayos de Interpretación Sociológico-política (Santiago, Universitaria, 1970); Celso Furtado, La Concentración del Poder Económico en los Estados Unidos y sus Reflejos en América Latina (Buenos Aires, Centro Editor de América Latina, 1969). In the case of Colombia we can name: Mario Arrubla, Estudios sobre el Subdesarrollo Colombiano (Medellín, Oveja Negra, 1969); Rodrigo Parra (ed.), La Dependencia Externa y el Desarrollo Político de Colombia (Bogotá, Universidad Nacional, 1970); Gustavo Perez R., Planas: Las Contradicciones de Capitalismo (Bogotá, Tercer Mundo, 1971); Belisario Betancur, La Ayuda Externa (Bogotá, Tercer Mundo, 1970); José Consuegra, El Neomalthusianismo, Doctrina del Neoimperialismo (Bogotá, Desarrollo Indoamericano, 1969); O. Fals Borda, Ciencia Nueva y Colonialismo Intelectual (México, Siglo XXI, 1970).

⁵Humberto Rojas, "El Frente Nacional, una respuesta al subdesarrollo?" in Rodrigo Parra (ed.), La Dependencia externa y el desarrollo político de Colombia (Bogotá, Universidad Nacional, 1970). Anibal Quijano, "La Urbanización de la sociedad en Latinoamérica," Revista Mexicana de Sociología, Vol. XXIX, No. 4, octubre-diciembre 1967.

oriented growth or dependency in the agricultural sector for exports could be overcome.

Internal growth started with import substitution of the simpler, more easy to produce goods, mostly for consumption. When this substitution reached a saturation point it was necessary to begin the substitution of productive goods, and needed raw materials had to be imported from the industrialized countries. Thus a new form of dependency was created--industry had to import machinery to produce the new products it wanted to substitute. This phenomenon can be observed in Table I-2.

While consumption goods decreased from 1930 to 1969 from 45.4 percent to 7.3 percent of total imports, production goods increased 54.6 percent to 79.3 percent. Foreign currency was obtained mainly through agricultural exports while at the same time capital created by agriculture was invested basically in industrialization. These results of import substitution policies had two main effects on the social structure: a) imported machinery induced unemployment at the same time that it increased productivity, since imported technology had been designed for societies with expensive and not abundant labor; b) urbanization of the economy created unemployment in the agricultural sector which, coupled with land tenure problems and increased land concentration, caused migration to urban centers in proportions which saturated the capacity of employment supply within the incipient industry. In this form, unemployment and underemployment, which had been mainly a rural problem, became urbanized.

The low capacity of the industrial sector to create employment can be judged by the following table.

TABLE I-1

NO. OF JOBS CREATED BY SECTORS IN LATIN AMERICA, 1925-60

	Millions of persons
Increase in total employment	35.7
Increase in agricultural employment	12.2
Increase in non-agricultural employment	23.5
Increase in industrial employment	5.3
Increase in employment in other non-industrial urban activities	18.2

Source: Naciones Unidas, El Proceso de industrialización en América Latina (New York, Naciones Unidas, 1965), p. 44.

Industrial employment expressed as a proportion of non-agricultural employment has decreased drastically in Colombia from 48 to 28 percent for the period 1929-60, the highest decrease in Latin America. This decrease

TABLE I-2
COLOMBIA: PERCENT COMPOSITION OF IMPORTS, 1930-1969

Types of Products	1930-1938	1939-1945	1946-1953	1953-1956	1957-1959	1960-1969*
Total	100.0	100.0	100.0	100.0	100.0	100.0
Consumption goods	45.4	30.1	22.5	17.1	11.0	7.3
Machinery and Productive equipment	21.4	21.6	36.3	38.4	31.4	34.4
Raw materials and intermediate goods	33.2	48.3	40.9	43.7 ^a	56.0 ^b	44.9 ^c
Total production goods	54.6	69.9	77.5	82.2	87.4	79.3

^a .7 percent without classification.

^b 1.6 percent without classification.

^c 12.9 percent without classification.

* For 1960-1969 data, see DANE, Boletín MENSUAL de Estadística, No. 230, 1970, p. 44.

Sources: ECIA and PLANEACION. Taken from Mario Arrubla, Ensayos sobre el subdesarrollo Colombiano (Medellín, Oveja Negra, 1969), p. 147.

means that the participation of industry in the creation of jobs is not only low but also decreasing proportionally to other non-agricultural sectors, leading to the phenomenon called the "overtertiarization" of urban employment and to a hypertrophy of the reserve army, creating the so-called "marginal masses."⁶

Since external markets for finished goods practically do not exist for Colombia and terms of trade deteriorated, capital inflow to Colombia was reduced. In addition, industrial development based on import substitution was stymied by the small size of the market for capital goods. All these factors led to industrial stagnation. This situation was compounded by the fact that the industrial sector depends for its development on savings taken out of the primary sector exports. Export prices of the agricultural sector were seriously affected by the deterioration of the terms of trade (see Table I-3)⁷, and thus the capacity to import decreased. Again industry, which was dependent on foreign-produced machinery and intermediate goods, stagnated, with obvious effects on its capacity to absorb labor. In addition, imported machinery producing capital goods eliminated jobs in handicraft industries. Workers thus displaced could scarcely be absorbed by an industrial sector whose machinery was geared to a labor-saving economy.⁸ Deterioration of terms of trade also encouraged chronic inflation affecting mainly lower income groups, while upper income groups, as owners of the means of production, increased their incomes (see Table I-4). Thus we can see that unemployment, distribution of employment, and concentration of income are byproducts conditioned, to a great extent, by the situation of dependency.

Part 3: Urbanization and Dependency

Urbanization is here defined not only as a demographic and ecological process (concentration of population in a given area) but also as a process of change which includes economic, political, and cultural aspects.

The rural and the urban differentiate first of all as two forms of ecological and socio-economic organization of human life, forms which not only coexist but

⁶ Paul Baran, La Economía política del crecimiento (México, F.C.E., 195-). José Nun, "Superpoblación relativa, ejército industrial de reserva y masa marginal," Revista Latino Americana de Sociología, Vol. V, No. 2 (julio de 1969). Rodrigo Parra, "Marginalidad y subdesarrollo," Razon y Fabula, No. 25 (mayo-junio de 1971), Bogotá, Universidad de los Andes.

⁷ See Table I-3 and Raul Prebisch, Transformación y desarrollo: La gran tarea de América Latina; Washington, Informe presentado al Banco Interamericano de Desarrollo, 1970, p. 69.

⁸ See: Peter Dorner, "Needed Redirections in Economic Analysis for Agricultural Development Policies," American Journal of Agricultural Economics, Vol. 53 (February 1971), pp. 12-13; CEPAL (ECLA), Problemas y perspectivas del desarrollo industrial latinoamericano (Buenos Aires, Solar Hachette, 1964); and Oficina Internacional del Trabajo, Hacia el pleno empleo (Bogotá, Banco Popular, 1970).

Table I-3

INDICES OF IMPORT-EXPORT PRICES AND IMPORT CAPACITY
COLOMBIA, 1952-1966

Years	Index of import price	Index of export price	Relation of interchange prices	Import capacity*
1952	100.0	100.0	100.0	100.0
1953	95.2	103.4	108.6	132.3
1954	95.2	124.1	130.4	146.7
1955	96.9	110.0	113.5	127.0
1956	98.9	110.3	111.5	112.6
1957	161.1	173.0	107.4	103.3
1958	247.8	225.3	90.9	92.3
1959	249.5	192.4	77.1	94.2
1960	255.4	203.8	79.8	92.5
1961	260.9	202.7	77.7	85.4
1962	263.3	192.5	73.1	89.7
1963	333.3	220.0	66.2	79.6
1964	329.3	262.5	79.7	99.5
1965	350.4	285.6	81.5	96.2
1966	460.0	297.8	64.7	76.6

* Other sources give a greater decrease to the import capacity index from 1953 = 100.0 to 1961 = 69.7. See Arrabla, *op. cit.*, p. 177.

Source: Superintendencia de Comercio Exterior, "Análisis del Comercio Exterior Colombiano 1957-1967," Bogotá, Imprenta Nacional, 1968.

Table I-4

CHANGES IN INCOME DISTRIBUTION IN COLOMBIA, 1962-1968

Percent of Population	Percent of Income		
	1962 ^a	1964 ^b	1968 ^c
5	28.5	30.0	34.5
45	54.0	56.0	55.5
50	17.5	14.0	10.0

^a Tylor, *op. cit.*, p. 225.

^b Musgrave, *op. cit.*, p. 144.

^c Prieto, *op. cit.*, p. 68.

which are in permanent interrelationship. This means that they can not be taken as two poles of a continuum but as two sectors of the same structural unit. It is not possible then to study what happens in one sector without establishing the relationships and conflicts with the other.⁹

One of the central problems in the study of urbanization is an analysis of changes in the rural-urban relationship. Such an analysis would clarify many of the connections between dependency and urbanization.

Two basic ideas are presented in the following pages: 1) the urban structure of Colombia has been conditioned by the economic interests of other societies (Europe, USA) through their dominant relationship to Colombia; 2) internally, society has been shifting from forms of organization which were mainly rural to urban forms. This means that the economy, centers of political power, central values, and population have become urbanized.

From the beginning of the Spanish colonial epoch the foundation of cities or towns followed a very clear pattern. In effect, cities or towns were founded and survived when one or several of the following three reasons were present:

1) Where gold or silver mines could be exploited. Although Colombia's potential as a mining region was not comparable to that of Peru and Mexico, the mines of Antioquia and Chocó were attractive enough to justify the foundation of small centers for its exploitation and the import of slave labor. Mining was, nevertheless, a less frequent and important factor than in some other Latin American countries in the conditioning of the urban structure during the Spanish colonial period;

2) Where native labor was available to work the land. This was an important factor since the land tenure arrangements were based on a labor intensive economy and the supply of labor was very scarce. Since the "Nuevo Reyno de Granada" (of which Colombia was a part) supported a very complex Spanish bureaucratic apparatus, the political centers had to be placed where there existed labor enough to exploit the land and supply food for urban centers. This was the case for Bogotá, Popayán, and Pasto;

3) Possibly the most important factor conditioning the shaping of the urban centers in Colombia was their strategic position as commercial centers for Spain and the northern part of South America. Colombia was the natural place of entry to Peru and the richest silver mines of South America, explaining the growth of Cartagena as the main port in the Atlantic, and, later, the importance of Barranquilla and river ports along the Magdalena River, which became the main communication channel between the Atlantic Coast

⁹Anibal Quijano, "La Urbanización de la sociedad en Latinoamérica," op. cit., p. 690.

and the center of the country. These ports created a communication infrastructure which made trade easier between Bogotá and Spain, and later with London, than internally. The diverse Colombian regions thus remained almost completely isolated from each other.¹⁰ The communication system was built to serve the commercial interests of Europe and not Colombian development.

The region which includes the current Santander and Norte de Santander departments (states), here called the North-Oriental region, is an exception to this historical development. This region was not oriented toward Spain, developed textile manufactures, created an internal market and urban centers, and was the most prosperous region at that time. Nevertheless, the development of a new dependency, the export of raw materials and the import of manufactured goods, together with the adoption of the free trade policy by Colombia, ruined the incipient industry of the region, and urban centers in the Oriental region which had grown through industrial development, (especially Pamplona, Giron, San Gil, and Socorro), lost much of their importance and stagnated.¹¹

By the middle to the 19th century tobacco production caused a new "boom" in some regions, mainly the northern part of the state of Tolima.¹² Tobacco was exported to England and Germany. When Germany favored the tobacco cultivated in its colonies and taxed the South American varieties, and competition with Sumatra and Java became serious, Colombian tobacco producer regions experienced an economic crisis. The effect of this crisis on urban growth can be observed in Table I-5.

Decrease in the annual population growth rate begins in 1860-1861 with the tobacco crisis. Urban growth (including population concentration, labor diversification created by tobacco processing, and increases in the service sector) was directly induced by the "boom" in tobacco production. Stagnation and decrease (emigration) in urban population was also largely created by a shift in the international tobacco market, rather than internally.

Colombia started exporting coffee by the middle of the 19th century but coffee exports did not have any real importance in the Colombian economy until this century, when coffee decisively shaped the Colombian economy. Between 1945 and 1952 coffee represented 74 percent and 80 percent of total Colombian exports respectively. This defines the Colombian economy as

¹⁰ Luis Eduardo Nieto Arteta, El Café en la sociedad colombiana (Bogotá, Breviarios de Orientación Colombiana, 1958), p. 19; José Raimundo Sojo, El Comercio en la historia de Colombia (Bogotá, Cámara de Comercio de Bogotá, 1970).

¹¹ Nieto Arteta, ibid., p. 64,66.

¹² Luis F. Sierra, El Tabaco en la economía colombiana de siglo XIX (Bogotá, Universidad Nacional, 1971).

Table I-5

POPULATION ANNUAL RATES OF GROWTH IN THE TOLIMA TOBACCO REGION

Districts	1835-1843	1843-1851	1851-1865	1865-1870
Ambalema	4.62	5.77	- .81	-7.28
Guayabal	4.70	3.03	3.39	2.05
Beltran	1.35	----	-----	-----
Lerida	-----	-----	1.54	1.87
Mendez	4.03	.50	1.67	-3.30
Campo A.	3.01	2.31	2.75	2.26
Venadillo	-2.53	3.08	1.38	1.20
Piedras	3.77	4.21	1.16	-9.12
Coello	2.40	-1.38	3.11	.10

Source: Censo General de Población de la Nueva Granada (1835, 1843, 1851). Taken from Sierra, op. cit., p. 141.

basically agricultural and monoproduktive.¹³ An economy based on only one product makes Colombia extremely vulnerable.¹⁴

Internally, coffee was the basis for the growth of cities such as Manizales, Pereira, and Armenia, situated in the heart of the coffee region.¹⁵ A communication infrastructure (railroads and river navigation) linked the coffee area, and particularly the cities growing out of the coffee production, to the central means of communication: the Magdalena River and Barranquilla, Santa Marta, and Cartagena, the main ports on the Atlantic

¹³Humberto Rojas, "El Frente Nacional...", op. cit.

¹⁴Francisco Posada, Colombia: Violencia y subdesarrollo (Bogotá, Universidad Nacional, 1969). Luis Eduardo Nieto Arteta, Economía y cultura en la historia de Colombia (Bogotá, Tercer Mundo, 1962).

¹⁵Nieto Arteta, ibid., p. 15.

Ocean. Later, the railroad linked the central country to the port of Barranquilla.¹⁶

Additionally, coffee produced savings needed to develop industry and make possible the import of intermediate and production goods. Coffee-derived industry moved capital in two directions--from rural to urban areas and to certain regions. With industrialization, the economy experienced a basic transformation: savings generated in rural areas by agricultural production exports were invested in industry. In effect, industrial concentration in urban areas meant a real urbanization of capital. Power which had been based on land ownership (although some land owners lived in cities, the base of power was rural) was now shifting towards industrial and commercial activities. In addition, capital flowed toward certain regions which had the highest proportion of coffee production: Antiquia, Caldas, Valle del Cauca, and Cundinamarca.¹⁷ Industry has flourished in those region's cities. In 1966, for example, Bogotá (Cundinamarca), Medellín (Antioquia), Cali (Valle del Cauca), and Barranquilla (port of coffee export) have 73 percent of the industrial added value and 75 percent of industrial employment with only 58 percent of the total urban population (urban = more than 20,000 inhabitants). These four cities also account for 67 percent of the total checks paid.¹⁸

The result was a new industrial dependency. With worsening terms of trade for agricultural products, the capacity for reinvestment in industry (productive and intermediate goods) decreased and national industry became dependent on foreign investment and loans to keep pace with import needs. Foreign capital (American) shifted directions and geared towards the new industrialization process. Table I-6 shows shifts in direct American investment by sectors; between 1929 and 1966 oil investment remained high (45.2 and 48.1 percent) while investments in industry and services changed drastically (2.4 to 32.9 percent; 20.2 to 5.0 percent) and total investments increased from \$124 million to \$571 million.

This shift in dependency can be analysed as a shift in the form of imperialism. Investments once geared toward the primary sector (agricultural and extractive) and transportation¹⁹ are now directed toward domination of the secondary sector. Under the new dependency production is

¹⁶ Posada, op. cit., p. 34-35; Nieto, Economía y cultura..., op. cit., p. 23-24.

¹⁷ Nieto, Economía y cultura..., p. 27.

¹⁸ Departamento Nacional de Planeación, El Desarrollo Socio-Económico Colombiano: Diagnóstico y Política, Documento DNP, 472, URH, marzo de 1970.

¹⁹ Theotonio dos Santos, La Crisis del desarrollismo..., op. cit.; A. Camacho, Capital extranjero: Subdesarrollo colombiano (Bogotá, Punta de Lanza, 1971).

Table I-6

U.S. DIRECT INVESTMENT IN COLOMBIA BY MAIN SECTORS 1929-1966
(Million dollars and Percentages)

Sectors	1929	1943	1950	1958	1963	1966
Petroleum	56 (45.2)	75 (64.1)	112 (58.0)	106 (35.7)	246 (53.0)	277 (48.1)
Manufactures	3 (2.4)	6 (5.1)	25 (13.0)	62 (29.9)	120 (25.9)	190 (32.9)
Public Services	25 (20.2)	19 (16.3)	33 (17.1)	43 (14.5)	27 (5.8)	29 (5.0)
Commerce	4 (3.2)	6 (5.1)	9 (4.7)	46 (15.5)	52 (11.2)	54 (9.4)
Others	36 (29.0)	11 (9.4)	14 (4.2)	40 (13.4)	19 (4.1)	21 (3.6)
Total	124 (100.0)	117 (100.0)	193 (100.0)	297 (100.0)	464 (100.0)	571 (100.0)

Source: DANE, Boletín Mensual de Estadística, Bogotá, No. 239, junio de 1971, p. 76.

destined for an internal market rather than for export. This requires the growth of urban centers where the middle classes constitute the bulk of the consumers. Since rural areas are deprived of investment funds, their capacity for consumption is minimal.

This movement toward the urbanization of the economy and, in general, of the society, leads to two questions: 1) what is the relationship between urbanization and dependency? 2) what are some of the consequences of a dependent urbanization for the internal structure of society?

One way to investigate the first question would be to compare the growth of urban population to the growth of foreign investment in industry (Table I-6). The figures in Table I-7 indicate a very rapid process of urbanization, particularly when the increase in both rural and urban population is taken into consideration (Table I-8). The higher rate of increase in urban population (Table I-8) is mostly due to internal migration. These urban rates of growth are not, however, evenly distributed (Table I-9). Urban centers may be classified into three main categories according to whether they have experienced growth, stability, or decrease. 1) Urban centers under 10,000 inhabitants have decreased from 51.79 percent in 1938

Table I-7

COLOMBIA: PERCENT OF URBAN POPULATION, 1938-1964

	1938	1951	1964
Urban*	30.9	39.4	52.0
Rural	69.1	60.6	48.0

* More than 1500 inhabitants.

Source: DANE, population census 1938, 1951, and 1964.

Table I-8

RATE OF INCREASE OF RURAL AND URBAN POPULATION 1938-1964

	1938-1951	1951-1964
Urban	37.71	53.88
Rural	13.55	12.87

Source: Departamento Nacional de Planeación, La Población en Colombia: realidad, perspectivas y política. Documento DNP 280, URH, diciembre de 1969, p. 15.

Table I-9

COLOMBIA: POPULATION CONCENTRATION IN URBAN AREAS BY SIZE CATEGORIES OF PLACES. 1938, 1951, 1964. PERCENTS

Size Categories (Inhabitants)	1938		1951		1964	
	Percent	Cumulative	Percent	Cumulative	Percent	Cumulative
Less than 2000	18.67	18.67	9.35	9.35	4.56	4.56
2000-4999	20.72	39.39	14.84	24.19	8.41	12.97
5000-9999	12.40	51.79	9.59	33.78	8.33	21.30
10,000-19,999	7.43	59.22	8.50	42.28	9.16	30.46
20,000-49,999	10.43	69.65	10.73	53.01	8.44	38.90
50,000-99,999	7.75	77.40	8.98	61.99	9.86	48.76
100,000-199,999	10.73	88.13	4.79	66.78	9.26	58.02
200,000-499,999	11.87	100.00	18.93	85.71	10.20	68.22
500,000 and more	---	---	14.29	100.00	31.78	100.00
Total	100.00		100.00		100.00	
Concentration Index	.6388		.7504		.8040	

Source: Departamento Nacional de Planeación, Unidad de Desarrollo Regional y Urbano, "Modelo de Regionalización," en Ramiro Cardona (ed.), Migración y desarrollo urbano (Bogotá, ASCOFAME, 1970), p. 54.

to 33.78 percent in 1951 and to 21.30 percent in 1964. 2) Centers from 10,000 to 100,000 inhabitants have remained stable (25.61, 28.21, and 27.46 percent, respectively). 3) Centers of more than 100,000 show a considerable increase from 22.60 percent in 1938 to 38.10 percent in 1951 and 51.24 percent in 1964. The category of size which increased the most in the 1938-1951 period and again in 1951-1964 was the 500,000 and more. The greatest population loss was experienced by the less than 2000 group and by the 2000 to 4999 group, indicating that small towns are suffering acute depopulation and may even be assimilated into rural areas.

The relevance of urbanization to the analysis of social class rests on the occupational changes which urbanization generates. First is the increase in non-agricultural employment and the decrease in agricultural employment. Second is the proletarianization of the rural labor force, and the urbanization of rural "marginals." Urban marginals mainly are absorbed in the tertiary sector (service) of the economy, due to the inability of the secondary sector (industry) to absorb labor.

Demographic urbanization came first and only in the fifties did foreign investments in industry begin to grow at a very rapid pace. The direct influence of current American investments in the pattern of urbanization is

apparent when considering where American-controlled firms are located. According to the U.S. Department of Commerce,²⁰ in 1970 there were 341 firms (industrial, service, and extractive) in Colombia with (partial or total) American capital; 94.14 percent of these firms were located in the four largest cities (58.07 percent in Bogotá, 16.13 percent in Cali, 12.60 percent in Barranquilla, and 7.34 percent in Medellín). If only industrial firms are considered, the number of firms is reduced to 216, 93.9 percent located in the four largest cities (48.6 percent in Bogotá, 22.7 percent in Cali, 11.5 percent in Barranquilla, and 11.1 percent in Medellín).

These figures must be considered incomplete in that: first, they do not reveal the amount of capital invested in each place, nor the size of the industry or firm; and second, the amount of American capital invested in Colombian firms is only very roughly indicated (firms with more than 95 percent American capital and firms with from 5 to 95 percent American capital). Nevertheless, the figures do reveal that the concentration of American firms is very high in the most urbanized areas.

Changes in the occupational structure between 1938 and 1967 are considered in relation to the composition of the labor force by sectors of the economy²¹ (Table I-10).

²⁰U.S. Department of Commerce, Bureau of International Commerce, American Firms, Subsidiaries and Affiliates in Colombia (Washington, D.C., May 1970).

²¹Since there are several definitions of the sectors of the economy, it is convenient to clarify what is meant by primary, secondary, and tertiary sectors. The primary sector is used to cover all the extracting activities: agriculture, mining, fishing, hunting, and silviculture. Strictly speaking, primary activities exclude all processing and manufacturing of these goods. The case of mining is not clear since mining is generally understood to include not only the extraction of minerals or other materials but also their transformation, i.e., refining of oil, etc. The statistics available do not differentiate these subtleties, but the proportion of labor that such activities represent in Colombia is not meaningful. The secondary sector includes manufacture, be it industry or cottage industry, and the building industry. It mainly revolves around the transformation of raw materials. The tertiary sector or service sector includes electricity, water and cleaning services, commerce and finance, transportation and communication, and services "propriadamente dichos." This classification differs from the ISIC classification in that the ISIC classification does not include in the tertiary sector either transport or communication. For a detailed discussion of the sectors see: Boletín Económico de América Latina, Vol. 2, No. 1 (February 1957). Also, P. T. Bauer and B. S. Yamey, The Economics of Underdeveloped Countries (Cambridge, J. Nisbet and Co., Ltd., 1957); Torcuato S. DiTella, "Desarrollo económico y estructura Ocupacional. Revisión de la tesis de Colin Clark," in J. E. Hardoy and C. Tobar, (eds.), La Urbanización en América Latina (Buenos Aires, Editorial Instituto Di Tella, 1969).

Table I-10

OCCUPATIONAL STRUCTURE OF THE ECONOMICALLY ACTIVE POPULATION
IN COLOMBIA FROM 1938 TO 1967. (PERCENTAGES)

Sector	1938	1951	1964	1967*
A. Primary	75.67	55.50	48.85	45.0
1. Agriculture	73.99	53.87	47.27	44.6
2. Extractive industry	1.68	1.63	1.58	1.4
B. Secondary	11.75	15.81	17.07	17.7
1. Transforming industries	9.83	12.27	12.77	12.3
2. Construction	1.92	3.54	4.30	5.4
C. Tertiary	12.58	28.69	34.08	36.3
1. Public utilities	0.05	0.28	0.26	----
2. Commerce	3.67	5.43	8.58	9.0
3. Transportation	1.40	3.46	3.74	4.0**
4. Services	6.79	15.93	18.04	23.3
5. Other	0.67	3.59	3.46	----
Total	100.00	100.00	100.00	100.00

* DANE, Boletín Mensual de Estadística, NO. 227 (1970), p. 115.

** Includes public utilities.

Source: Population census 1938, 1951, and 1964.

The first and most visible change in the Colombian occupational structure is the decrease in the proportion of economically active persons in the primary sector, particularly in agriculture, coupled with a notable increase in the tertiary sector, particularly in services, and with a small growth in the secondary sector. This pattern is what has been called a typically underdeveloped occupational structure. According to Petty's law and Colin Clark's theory of development, the population migrating from the primary sector should find employment first in the secondary sector and secondly in the tertiary sector.²² This is the observable pattern in the industrialized countries of Europe and North America. This is not, however, the case in underdeveloped Latin American countries. The crucial difference is that industry in Latin America has not absorbed the necessary portion of the economically active population. Rural-urban migrants have passed directly from agriculture to the tertiary sector and to unemployment and underemployment.

²² Colin Clark, The Conditions of Economic Progress (London).

At this point it is suggestive to look at the sectors or subsectors in which American capital has been invested in Colombia. Oil has the highest rate of American investment capital. The proportion of employment in the extractive industries has remained stagnant, even decreased a little. Secondly, Americans have invested in manufacture. The proportion of economically active population in this subsector has experienced a small growth.²³ But is the period of more intensive foreign investment in industry is considered (1951-1964), the increase is minimal (from 15.81 to 17.07). These two subsectors receive 79.80 percent of the total direct American investment. This can be taken as evidence that foreign investment (including capital in form of technology) has a significant effect on occupational structures in the dominated countries. In terms of class composition, the working class has been kept to a minimum and the middle classes alone have benefited from efforts made by the state and political parties to reduce unemployment (by creating bureaucratic jobs). In addition, the tremendous growth of unemployment has led to what Marx called "relative over-population"²⁴: that is, excessive growth of the reserve army and "marginal masses," and overtertiarization. This phenomenon is most important in terms of class configuration in Latin America, for "marginalism" has been the prerequisite for populist movements in Latin America. Populism accounts for a good part of the political life of Latin America during this century, as indicated by the following movements: Cárdenas in Mexico, Perón in Argentina, Perez Jimenez in Venezuela, APRA and Haya de la Torre in Peru, Rojas Pinilla in Colombia, Getulio Vargas in Brazil.²⁵ Since populism is basically an urban phenomenon, rural-urban migration and changes in the occupational structure discussed above have a political as well as economic content.

²³For a discussion of this phenomenon in Colombia see Camacho, Capital extranjero: Subdesarrollo Colombiano (Bogotá, Punta de Lanza, 1972).

²⁴José Nun, "Superpoblación relativa, ejército industrial de reserva y masa marginal," Revista Latinoamericana de Sociología, Vol. V, No. 2 (julio de 1969).

²⁵For extensive analysis of populism in Latin America see, Jorge Graciarena, Poder y clases sociales en Latinoamérica (Buenos Aires, Paidós, 1968); Octavio Ianni, O Colapso do Populismo no Brasil (Rio de Janeiro, Editora Civilização Brasileira, S.A., 1968); Torcuato di Tella, "Populismo y reforma en América Latina," Desarrollo Económico, No. 16 (enero-marzo de 1965); Theotônio dos Santos, Lucha de clases y dependencia en América Latina; Julio Cotler, "Crisis política y populismo militar en el Perú," Revista Mexicana de Sociología, Año 32, No. 3 (abril-junio de 1970).

CHAPTER II: EDUCATION AND DEPENDENCY

Part I: Education and Mobility

Governments of underdeveloped countries speak of accelerating economic growth and decelerating unemployment through education. Social scientists have contributed to a large extent to the creation of this image of education as a key factor in development. Current literature on the topic can be summarized as follows:

1) Wealth

- a) Education is either a cause or a necessary condition for economic growth;
- b) Education is a long-term investment;²
- c) Education is a measure of the level of living and progress;³
- d) Education is a measure of modernization;⁴
- e) Education is cause of success in professional activities and a decisive factor of social mobility;⁵

¹Oficina Internacional de Trabajo, Hacia el pleno empleo (Bogotá, Banco Popular, 1970). Aldo E. Solari, Estudios sobre la sociedad uruguaya (Montevideo, Arca, 1965).

²Marcelo Selowsky, "El Efecto del desempleo y el crecimiento sobre la rentabilidad de la inversión educacional: Una aplicación a Colombia," Revista de Planeación y Desarrollo, Vol. 1, No. 2 (junio de 1969); T. W. Schultz, The Economic Value of Education (New York, Columbia University Press, 1963).

³Centro Latinoamericano de Estudios en Ciencias Sociales, La Situación social de la América Latina (Buenos Aires, Solar Hachette, 1969); una orientación similar puede observarse en las obras de CEPAL sobre asuntos educativos; Fernando Uricoechea, Modernización y desarrollo en Colombia: 1951-1964 (Bogotá, Departamento de Sociología, Universidad Nacional, 1967).

⁴Daniel Lerner, The Passing of Traditional Society (New York, The Free Press, 1964).

⁵Seymour M. Lipset and Reinhard Bendix, Social Mobility in Industrial Society (Berkeley, University of California Press, 1962); O. D. Duncan and P. M. Blau, American Occupational Structure (New York, John Wiley and Sons, Inc., 1964); Richard F. Hamilton, Affluence and the French Worker in the Fourth Republic (Princeton, N.J., Princeton University Press, 1967); Maurice Zeitlin, Revolutionary Politics and the Cuban Working Class (Princeton, N.J., Princeton University Press, 1967); Solari, Estudios sobre la sociedad uruguaya; Centro de Estudios sobre Desarrollo Económico (CEDE), Empleo y desempleo en Colombia (Bogotá, Universidad de los Andes, 1968).

f) Education is a factor which conditions (and is conditioned by) the social stratum and status;⁶

2) Power

a) Education is a factor which conditions political participation;⁷

b) Education is a conditioning factor of electoral voting;⁸

c) Education is a conditioning factor of the patronage of political parties;⁹

d) Education is a mechanism used for the creation of new elites to replace old ones, or to fill the gaps that appear within the ruling classes;¹⁰

3) Values

a) Education is a conditioning factor in the formation of values which contribute most efficiently to modernization and development;¹¹

⁶ Neal Gross, "The Sociology of Education," in Robert K. Merton and others (eds.), Sociology Today (New York, Basic Books, 1959); Gerhard Lensky, Power and Privileges: A Theory of Social Stratification (New York, McGraw Hill, 1969); S. M. Lipset, Political Man (New York, Doubleday and Company, 1963).

⁷ Donald R. Matthews and James W. Prothro, Negroes and the New Southern Politics (New York, Harcourt, Brace and World, Inc., 1966); Lipset, Political Man; Lester W. Milbrath, Political Participation (Chicago, Rand McNally and Company, 1965). Milbrath brings a bibliography of studies that confirms that one way or the other the relationship between a higher degree of education and a higher political participation is linked.

⁸ Bernard R. Berelson, P. F. Lazarfeld, and W. N. McPhee, Voting (Chicago, The University Press of Chicago, 1966). S. M. Lipset, "El Comportamiento político de los estudiantes universitarios de las naciones en desarrollo," in Memoria del VII Congreso Latinoamericano de Sociología, Sociología y sociedad in Latinoamérica (Bogotá, Asociación Colombiana de Sociología, 1967).

⁹ Henry Valen and Daniel Katz, Political Parties in Norway (Oslo, Universite forlaget Tavistock Publications, 1964); Samuel J. Eldersveld, Political Parties: A Behavioral Analysis (Chicago, Rand McNally and Company, 1964).

¹⁰ A. Solari, Estudios sobre la sociedad uruguaya.

¹¹ S. M. Lipset and A. Solari, Elites in Latin America (New York, Oxford University Press, 1967).

- b) Education is a conditioning factor in the formation of values which shun authoritarianism and lead to the valuation of individual liberties;¹²
- c) Education is a conditioning factor that limits the radicalism of the working class;¹³
- d) Education is a conditioning factor of democracy and its subsistence as a system;¹⁴
- e) Education is a conditioning factor of satisfaction in work.¹⁵

These studies have emphasized the effects produced by education in general on individuals or groups rather than the structure of the educational system and the various effects produced by this structure on certain segments of society.

In Colombia, the function of education in development is based on its value as a channel for social mobility, and thus as an efficient mechanism for egalitarianism, at least in terms of opportunity. Traditionally, mobility channels in Colombia have included educational, economic, bureaucratic, military, ecclesiastical, and political channels,¹⁶ most of which are now closed due to concentration of capital, income, and land.¹⁷ (There are some very specific exceptions to the general lack of mobility, such as flows between the middle and ruling classes, or the appearance of "new groups" of the middle classes.¹⁸) This situation can become politically

¹²Lipset, Political Man; Zeitlin, Revolutionary Politics and the Cuban Working Class; Hamilton, Affluence and the French Worker in the Fourth Republic; American Sociological Review, XXX (February 1965). Richard F. Hamilton, "Working Class Authoritarianism," papers of the XVIII World Congress of Psychology (Moscow, 1966).

¹³Zeitlin, Revolutionary Politics and the Cuban Working Class; Hamilton, Affluence and the French Worker in the Fourth Republic.

¹⁴Lipset, Political Man.

¹⁵Zeitlin, Revolutionary Politics and the Cuban Working Class.

¹⁶Camilo Torres R., "Violencia y cambio sociales," La Gaceta, Año III, No. 16-17 (septiembre, diciembre de 1966).

¹⁷Departamento Nacional de Planeación, "El Empleo en Colombia: Diagnóstico y recomendaciones de política," Revista de Planeación y Desarrollo, Vol. II, No. 2 (junio de 1970).

¹⁸Luis Ratinoff, "The New Urban Groups; The Middle Classes," in S. M. Lipset and A. Solari, Elites in Latin America.

explosive in a context in which populist movements and some leftist groups are organizing the masses and provoking agitation. Obviously, mobility through sponsorship of education is by far less onerous and risky, politically speaking, for the government than a program of generalized mobility by means of a redistribution of capital, land, or income.

Economic Mobility

Table II-1 presents 5 studies of income distribution carried out between 1960 and 1969 which show a high degree of concentration in personal income. Thus, 50 percent of the population has between 10.5 percent and 17.5 percent of the total income, while 5 percent has between 29.5 percent and 43.0 percent. Obviously, opportunities for economic mobility via personal incomes are scarce for the majority of the population. When the amount of personal income is analyzed, we find that, using an average family of six persons in urban areas as a basis, 50 percent of the population earns less than 399.0 Colombian pesos¹⁹ per month. Sixty-two percent of the population earns less than 559.0 Colombian pesos, 70 percent less than 720.0, 80 percent less than 960.0. The monthly average basic expenses of a family of 6 in 1967 as determined by the National Department of Statistics (DANE)²⁰ are estimated at 2424.99 pesos for white collar families and 1273.48 pesos for working class families. According to these figures (generally considered inadequate), 94 percent of Colombian families have a standard of living below white collar standards and 84 percent below working class standards.

A second way of looking at economic mobility is to analyze the distribution of capital. Sixty-eight and three-fifths percent of the shareholders in Colombia have only 0.78 percent of the total value of the shares, whereas 0.20 percent of the shareholders hold 61.2 percent of the total share value. Ninety-five percent of the shareholders have only 7.5 percent of the total share value.²¹

Land concentration is equally skewed, as shown in the Lorenz curve (Figure 1) where land concentration lies between the other two factors, personal income and capital.

Another indicator of a rigid economic structure is occupational mobility. A low degree of mobility was found in a study of occupational mobility of five Colombian cities. Eighty-three percent of the sample had less than 2 movements ("low mobility index"), 9 percent between 2 and 4 movements,

¹⁹The rate of exchange of pesos for U.S. dollars in 1964 was 12.82 pesos for 1 dollar. (See Revista del Banco de la República, Bogotá, septiembre de 1971, p. 1600.) In 1965 the rate of exchange was 18.29.

²⁰DANE, "Colombia estadística," (plegable) (Bogotá, 1968).

²¹Tabulado de la Superintendencia de Sociedades. More complete figures can be seen in Rodrigo Parra, "Education and Dependency" (Ph.D. thesis, Department of Rural Sociology, University of Wisconsin-Madison, 1971).

Table II-1

PERSONAL INCOME DISTRIBUTION IN COLOMBIA^a

Cumulative Percentage of Population	Cumulative percentages of personal income				
	CEDE (b)	Musgrave (c)	Taylor (d)	Urrutia (e)	Berry (f)
50%	10.5	14.0	17.5	11.0	16.0
60	12.5	20.0	22.5	17.0	21.0
70	16.5	26.0	30.0	25.5	26.0
80	23.0	35.0	40.0	37.0	34.0
90	32.5	50.0	58.0	53.0	46.0
95	65.5	60.0	71.5	67.0	57.0
100	100.0	100.0	100.0	100.0	100.0

^aTaken from, Revista de Planeación y Desarrollo, Bogotá, Vol. II, No. 2, junio de 1970.

^bPrieto, Ortega Villaveces, Encuesta de presupuestos familiares, CEDE, 1969, p. 68.

^cInforme Musgrave, Bases para una reforma tributaria en Colombia, Bogotá, Banco Popular, 1969, p. 44.

^dTaylor, M. C., "Fiscal Survey of Colombia. Joint Tax Program for the Organization of the American States," cited in Musgrave, op. cit., p. 44.

^eUrrutia, M., Villalba, C., "La Distribución de ingresos urbanos para Colombia en 1964," Revista de Banco de la República, septiembre de 1969, pp. 1277-1289.

^fBerry, A., "The Distribution of Agricultural Based Income in Colombia, 1960," unpublished.

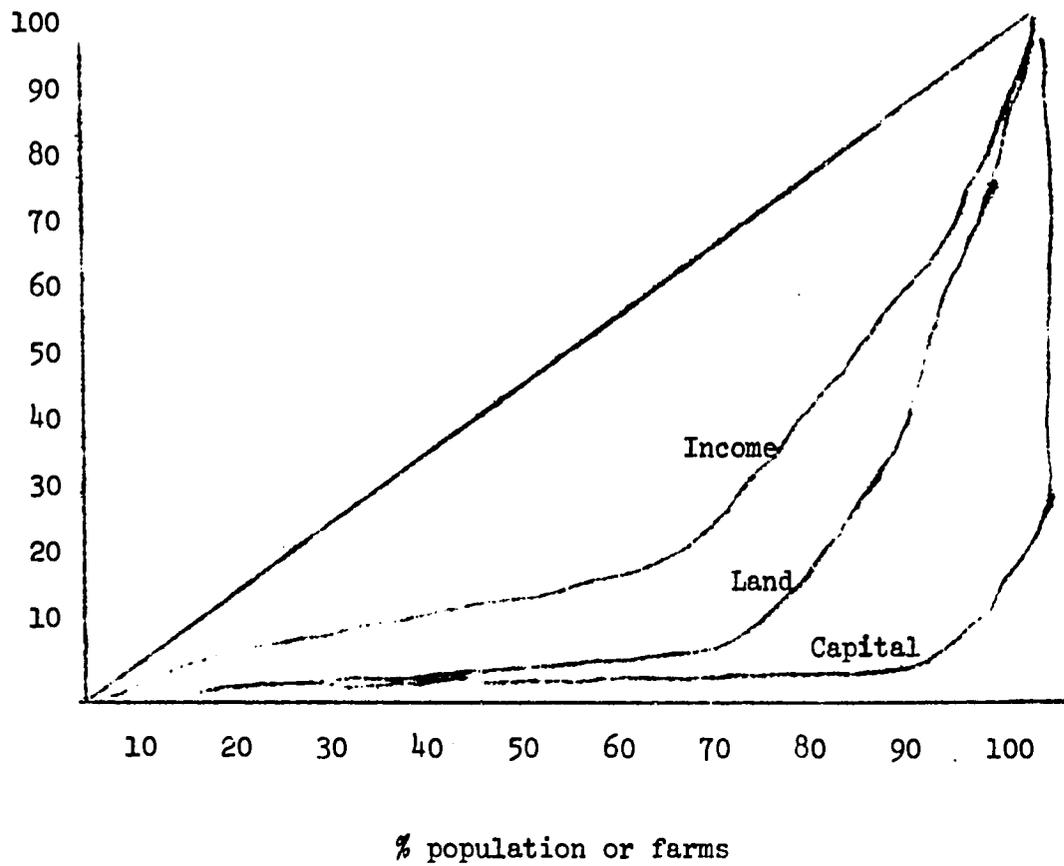
and 8 percent more than 4. The writer concludes from these figures that the most outstanding feature of the occupational structure in Colombia is its lack of fluidity (mobility).²² This study may be compared to one²³ in which data on mobility for San Jose, California and Bogotá show a higher occupational mobility for San Jose than Bogotá (see Table II-2).

²²Carlos A. García, "Movilidad ocupacional, resultados de una encuesta" (Bogotá, CEDE, 1969).

²³Rodrigo Parra, "El Desarrollo y la movilidad ocupacional de los sectores medios en Colombia," Razon y Fabula, No. 6 (Bogotá, marzo-abril de 1968).

Figure II-1

DISTRIBUTION OF INCOME, LAND, AND CAPITAL IN COLOMBIA



Sources: Shares: Tabulado de la Superintendencia de Sociedades Anónimas, 1967.

Land: Distribución de la tierra en Colombia, DANE, Boletín mensual de estadística, No. 222. Datos para 1969.

Income: Revista del Banco de la República, septiembre de 1969. Datos para 1964.

Table II-2

SOCIAL MOBILITY IN BOGOTA AND SAN JOSE (USA)

Father's Occupational Position	Mobility average (categories)	Mobility average (categories)
	BOGOTA 1	SAN JOSE 2
Unskilled workers	+1.3	+3.77
Semiskilled workers	----	+1.42
Skilled workers	+0.4	+1.08
Small owners	-0.3	-1.10
Clerical	-1.4	-0.38
Medium size owners and professionals	-1.5	-2.07
Large owners, professionals, and bureaucrats	----	-2.07

Source: Rodrigo Parra, "El desarrollo y la movilidad ocupacional de los sectores medios en Colombia," Razón y Fabula, No. 6 (Bogotá, marzo-abril de 1968).

Richard Centers, "Occupational Mobility of Urban Occupational Strata," in Man, Work and Society (New York, Basic Books, 1962), pp. 336-343.

Unemployment figures are another indicator of economic mobility. A study of 7 Colombian cities in 1967 shows unemployment rates fluctuating between 9.8 and 18.4.²⁴

With such a distribution of these representative economic factors, it becomes extremely difficult to argue that the economic channel of mobility is open to many segments of Colombian society.

Military and Ecclesiastical Mobility

Military and the ecclesiastical channels are analyzed together because they share the following characteristics: a) Upward mobility (in higher

²⁴ CEDE, Encuestas urbanas de empleo y desempleo. As cited in Departamento Nacional de Planeación, "El Empleo en Colombia: Diagnóstico y recomendaciones de política," Revista de Planeación y desarrollo, Vol. II, No. 2 (junio de 1970), p. 159.

TABLE II-3

GOVERNMENTAL MOBILITY INDEX OF POLITICAL PARTYS' LEADERS IN BOGOTA

Index Value	Absolute Frequency	Percent	Cumulative Frequency
Not applicable	2	.5	.5
-5	1	.2	.7
-4	1	.2	1.0
-3	1	.2	1.2
-2	9	2.2	3.4
-1	27	6.6	10.0
0	191	46.4	56.3
1	64	15.5	71.8
2	83	20.1	92.0
3	18	4.4	96.4
4	6	1.5	97.8
5	8	1.9	99.8
6	..	-	..
7	1	.2	100.0
TOTAL	4.2	100.0	100.0

Source: Survey of political leaders in Bogotá. Universidad de los Andes. First computer outputs.

echelons) must be sanctioned by the political hierarchy;²⁵ b) Both are experiencing a critical recruitment shortage for career positions; and c) Despite their political importance, these institutions are not quantitatively significant because potential applicants (those enrolled in high school) represent only a small percentage of the total population.²⁶ In sum, these two institutions do not at present affect meaningfully social mobility.

Bureaucratic and Political Mobility

Bureaucratic and the political channels basically are two aspects of the same phenomenon in Colombia because bureaucratic positions tend to be political rewards. Additionally, the two political parties, liberal and conservative, try to seize control of the state apparatus in order to distribute and conveniently allocate strategic positions to their members so as to strengthen party machinery for the next election. When the multiclass party system was threatened by a strong class trend (during "La Violencia") the two parties agreed on an equal distribution of bureaucratic positions for a 16 year period, which gave birth to the political mechanisms of "alternation" of presidents and "parity" in all the governmental positions.

Mobility via political channels may be best studied by analyzing party members' participation in the bureaucratic structure. Table II-3 refers to mobility within both party and government bureaucracies. The Table is based on two assumptions: a) Public administration and political parties are centralized in Bogotá, and b) Political leaders acquire most of the political rewards (as compared to rank and file party members and non-members). About half of the sample (46.4 percent) had no mobility and 56.3 percent did not move or had downward mobility. Only 8 percent moved more than two upward positions; 35.6 percent moved one or two upward positions--not much mobility for a group in power.

This analysis of the various traditional channels for mobility does not mean that there is no social mobility in Colombia, but that mobility must be studied in terms of institutional and/or structural constraints in order to understand the relatively static situation outlined above. The following sections provide such an analysis.

Part 2: Education and the Status Quo

In 1968:

of 1,000 school age children (7 years)
230 never go to school
770 enroll in first grade

²⁵ Francisco Leal Buitrago, "Política e intervención militar en Colombia," *Revista Mexicana de Sociología*, Año XXXII, Vol. XXXII, No. 3 (abril-junio de 1970), pp. 491-538.

²⁶ See author's thesis for further information on this point.

of 770 enrolled
505 begin second grade
357 begin third grade
263 begin fourth grade
216 finish fifth grade

of these 216 who finish primary school
119 enroll in the first year, secondary school
86 in the second year
74 in the third year
60 in the fourth year
40 in the fifth year
37 finish the sixth year of secondary school

of these 37 who finish secondary school
35 begin university studies
15 arrive at the third year of college
11 finish university studies (5th-6th year)

These figures indicate the internal efficiency of the educational system according to grade and schooling. If the attainment of the objectives of schooling according to levels were measured in terms of school retention, the investment in education would be a poor investment.

If these figures are applied to population groups in order to determine the effect of the school system on the community, the following social groups would be defined by education level:

1. A group of absolute illiterates which includes 230 per thousand.
2. A group of functional illiterates, with one or two years of schooling, which includes 413 per thousand.
3. A group of workers without profession, with complete primary school education, which includes 238 per thousand.
4. A group of workers professionally not qualified, which includes 59 per thousand.
5. A group of high school students trained for higher education but without specific training to undertake gainful employment, which includes 34 per thousand.
6. A group of university students who did not finish second year, who did not receive specific training to undertake a profession constituting a growing intellectual proletariat, and who amount to 19 per thousand.

7. A group with academic professional training which includes 7 per thousand.

In regard to these social groups, identified by their level of schooling, with no vertical mobility, the external output is clear. The first two groups, absolute illiterates and functional illiterates, who constitute 643 per thousand of the population above 7 years, are not able to change the social structure and are resistant to change. They constitute a regressive factor in economic growth. In terms of cost-profit, they cost more than they produce.

The third group (238 per thousand) is permeable to change; it participates in change. But it is a group that must be prodded since its social action is of a reactionary type. This group constitutes a delaying factor in economic growth. Its members are eager consumers by imitation, and have more necessities than possibilities of satisfying them.

The other groups, with some level of secondary or university studies, are capable of introducing changes. The problem of growth would be formulated thus for these groups:

How able are they to drag along the marginals of the educational system, progress themselves and help the country grow? From the point of view of "school years" the total population above seven years has a mean of 2.4 years of schooling with which to produce and compete nationally and internationally. This is, on the average, the result obtained through the present educational system, stated in years of study.

The aforesaid means that economic growth, for a population constantly augmenting, is going to be more and more difficult, even impossible, if it is not founded in a social development starting with education.²⁷

The figures shown by Planeación Nacional speak for themselves. The educational system excludes 881 per thousand of the total school age population from social mobility and participation in development (as defined by Planeación Nacional). However, the inability of most of the population to modify the social structure as asserted by Planeación can be questioned

²⁷Departamento Nacional de Planeación, Plan de Desarrollo Económico y Social, Sector Educación (1970).

from a political viewpoint.²⁸ The creation of a new political party, ANAPO, with a definite electoral strength and basic support from the marginal group categorized as illiterates and functional illiterates (651 per thousand), indicates some participation in social change.

If electoral behavior can be taken as an indicator of political participation, the class tendency of voters in the 1970 presidential election in Bogotá and Medellín shows a stratification of votes corresponding to a stratification of neighborhoods based on living standards. Contrary to Colombian electoral history, the candidates and the votes in this election had a class identification. According to Table II-4, where presidential votes are tabulated by neighborhood, Pastrana and Sourdis had a majority of votes in the higher strata, and the percentage of their vote decreased in lower strata. Betancur can be identified as a middle class candidate. The Rojas vote increases as voter analysis moves from upper to lower strata.

"Resistance to change," then, is not a personal problem but a structural situation created by the economic system in general and the educational system in particular, both of which have excluded large marginal groups from educational opportunities. "Lower class inertia" does not seem to exist, if measured by political processes; if it existed, the cause would not be ignorance but a system which has fostered widespread illiteracy. Thus, the educational system as it currently exists is a regressive factor in development.

The definition of lower groups (88 percent of the population according to education) as regressive and retardatory factors and higher groups as reformers, the definition of the problem at an individual level, and the definition of development as a problem of "how able are they [the elites] to drag along the marginals, progress themselves, and help their country grow," suggests the theoretical orientation of the government's analysis. The political aspects of both the educational system and its interactions with society are ignored. This vision of mobility and development possibilities is typical.

Planeación Nacional's document clearly assumes that education is a necessary condition for development. "The aforesaid means that economic growth, for a population constantly augmenting, is going to be more and more difficult, even impossible, if it is not based on social development starting with education."²⁹ In this thesis, on the contrary, education is presented as supporting the present structure of Colombian underdevelopment, given its consequences and its inter-relationship with other factors conditioning underdevelopment. In other words, historically, the structure

²⁸L. A. Pinto, Voto y cambio social; el caso colombiano en el contexto Latinoamericano (Bogotá, Tercer Mundo, 1971). John McCamant and others, Las Elecciones del 17 de marzo en la ciudad de Cali (Cali, Universidad del Valle, 1968). Santiago Araoz, La Abstención electoral y la participación política (Bogotá, Universidad Nacional, 1970).

²⁹Planeación Nacional.

Table II-4

PERCENTAGE OF VOTES IN THE 1970 PRESIDENTIAL ELECTION IN TWO CITIES (BOGOTA AND MEDELLIN)
 ACCORDING TO NEIGHBORHOOD STRATIFICATION

Strata	Bogotá					Medellín				
	Pastrana	Sourdis	Betancur	Rojas	No Answer	Pastrana	Sourdis	Betancur	Rojas	No Answer
High	75.81	3.49	11.94	8.32	0.43	74.2	1.21	16.5	7.46	0.46
High middle	66.95	3.02	17.64	11.93	0.46					
Middle	56.41	2.39	20.90	19.51	0.80	57.2	0.86	24.8	16.50	0.55
Low middle	35.47	0.78	12.99	49.98	0.77					
Low	27.81	0.35	8.27	62.74	0.81	23.0	0.17	11.4	64.50	0.73
Slum	11.78	----	3.05	83.97	1.19					

Source: DANE, Boletín mensual de estadística, No. 229, agosto de 1970, p. 181.

of the Colombian educational system has contributed to the formation of an underdeveloped society and has served as an obstacle to the social mobility of a great majority of the population.

Surprisingly, Planeación Nacional itself asserts: "By the time they arrive at the working age (15 years), 940 students from each 1000 have been excluded from the system to become candidates for unemployment and different forms of underemployment." However, this statement is an internal criticism of the educational system and not a criticism of the general system of a dependent economy. Hence, it is possible for Planeación to propose an educational reform isolated from other social relationships, and to treat this reform as a sufficient condition for development.

Part 3: Education, Urbanization, and Class

In the following section, the educational structure of Colombia will be analyzed empirically to determine if concentrations follow the patterns outlined in Chapter I (concentrations by class and city--concentration by region will be taken up in Chapter III). If so, it can be inferred that education is part of the dependency structure and does not function autonomously.

The data used to test the hypotheses are basically secondary data, mainly taken from population or educational censuses carried out by governmental agencies. These data have been re-ordered and presented in different forms to serve the goals of the study. Much of the data have been taken from other studies where they were used in different contexts. Colombian census data have been generally given a 5-10 percent margin of error and sometimes more. Although in general census data in Colombia are not highly reliable, the intention here is not to claim an exact description but to suggest a tendency. It is assumed that census errors are distributed randomly. When some selectivity is suspected, it is discussed in the text.

According to the data of the national population census of 1964, urban illiteracy was 15.0 percent and rural illiteracy 41.3 percent. Mean years of schooling for people older than 15 years was 1.7 in the rural area, and 5.1 in the urban.³⁰

Differences favoring the urban area are widened when looking at the distribution of primary, secondary, and university schooling. Differences begin at the primary level, become truly significant differences at the secondary level and even more acute at the university level, as Table II-5 shows.³¹

³⁰DANE, censo de 1964. Taken from Departamento de Planeación, Planes y programas de desarrollo, 1969-1972, p. V. 3.

³¹Alejandro Martínez, "La Expansión de la escolarización en Colombia," 1933-1964, trabajo presentado al II Congreso de Sociología, Bogotá, 1967, and Jaime Rodríguez, "El Sistema de bachillerato colombiano y el cambio social," trabajo presentado al II Congreso Colombiano de Sociología, Bogotá, 1967.

Table II-5

PERCENTAGE OF INDIVIDUALS WITH PRIMARY, SECONDARY,
AND UNIVERSITY EDUCATION ACCORDING TO LOCATION IN
RURAL AND URBAN AREAS COLOMBIA 1964

Area	Primary	Secondary	University
Rural	42	9	5
Urban	58	91	95
Total	100%	100%	100%

Source: DANE, Censo Nacional de 1964.

In addition, "in a period of at least 40 years [c. 1924-1964], the rates of urban illiteracy decreased to a fourth of the original rate, and those of rural illiteracy to something less than half, with the result that relative distance between urban and rural increased rather than decreased."³²

Several factors may distort the above figures on urban-rural educational differences, for example, age. Historically, the younger generations have had more educational opportunities than their elders due to the recent expansion of the school system. Nevertheless, urban-rural differences in educational levels persist even when distributed according to age: for the group above 60 years of age, 26.7 percent of the urban population has had 5 years or more of schooling, as compared to only 4.4 percent of the rural population. For the population between 15 and 19 years, the urban percentage is 50.5 percent and the rural 9.8 percent.³³ Moreover, the mean age of rural and urban students attending school establishes an additional difference in favor of the urban population, as can be seen in Table II-6.

One of the fundamental problems shown by the educational structure, if rural and urban figures are compared, is not only the number of schools or classrooms, indices generally employed, but also the number of grades offered by each school.

The difference is remarkable: while 78.78 percent of the urban schools have four or five grades, only 15.25 percent of the rural ones have that many grades. Sixty-three percent of rural schools have only two primary grades; thus, since primary education is an obvious prerequisite for secondary

³²Germán W. Rama, El sistema universitario en Colombia (Bogotá, Universidad Nacional, 1970), p. 12.

³³Rama, p. 12.

Table II-6

AVERAGE AGE OF STUDENTS IN PRIMARY GRADES BY RURAL AND URBAN ZONES COLOMBIA 1968

Zone	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
Rural	8.9	10.3	11.2	12.1	12.8
Urban	8.3	9.5	10.7	11.7	12.5

Source: Oficina de Planeamiento Nacional, Ministerio de Educación Nacional.

Table II-7

NUMBER OF GRADES OFFERED IN RURAL AND URBAN SCHOOLS COLOMBIA 1966

Number of Grades	Urban		Rural		Total	
	No. of schools	%	No. of schools	%	No. of schools	%
1	316	4.15	775	4.60	1,091	4.46
2	588	7.72	9,897	58.76	10,485	42.87
3	711	9.34	3,604	21.39	4,315	17.64
4	953	12.52	1,586	9.38	2,533	10.36
5	5,046	66.27	988	5.87	6,034	24.67
Total	7,614	100.00	16,844	100.00	24,458	100.00

Source: Oficina de Planeamiento, Ministerio de Educación Nacional, Plan Quinquenal de Desarrollo Educacional, 1970-1974, mimeo, p. 16.

school, the possibilities of upward social mobility through education clearly discriminate against people from rural areas. This situation is intimately related to processes stemming from national dependency as outlined in Chapter I--urbanization, not only of population but principally of economy as a result of the concentration of industry, capital, and trade under dependency.³⁴ Secondary and university education are thus totally urban phenomena.

Advantages of geographic location (caused by the economic functions of these locations as producers of either raw materials or industrial products and services) are reflected in the university system. For example, at the Universidad Nacional the selective influence of social class should be less since it is a public institution with very low fees. However, the geographic origin of both its students and their pre-university training are found to condition to a high degree access to the university educational system. Thus, more than half of the university population of the Universidad Nacional is concentrated in cities of over 100,000 inhabitants, while their population represents only 32 percent of the total national population. On the other hand, rural areas or towns under 10,000 inhabitants with approximately half of the national population (in 1964) represent only 11 percent of the students in the Universidad Nacional. These figures become even more unbalanced when analyzing according to the place of pre-university study. Thus, cities with more than 100,000 inhabitants account for 75.3 percent of the students at the Universidad Nacional, and the areas under 10,000 only 1.3 percent.

A rough way of measuring the social origin of the students is the classification according to type of institution they have studied in. In a general way and with some variations, we will say that private education corresponds to high and middle class groups (based on economic status implied by the fees) while public education, especially at the primary and secondary levels, can be roughly identified with lower groups.

Although public primary education is far more widespread, it is also overwhelmingly inferior. According to the Departamento Nacional de Planeación (Plan de Desarrollo Económico y Social, Sector Educación, p. 4), 97 percent of private primary school graduates go to secondary school, while only 37 percent of those from public schools do so.

This process is still more evident at the university level. As stated above, the Universidad Nacional should admit a higher proportion of students from public secondary institutions, but Table II-9 belies this.

According to Table II-10, only 6.7 percent or 5.4 percent (depending on the classification used) of the students of the Universidad Nacional come from the lower class which forms approximately 80 percent of the national population; only 2.9 percent of this group graduate.

³⁴Theotonio dos Santos, T. Vasconi, M. Kaplan, and H. Jaguaribe, La Crisis del desarrollismo y la nueva dependencia (Lima, Moncloa, 1969), and Rodrigo Parra S., "Marginalidad y subdesarrollo," Razón y Fábula, No. 25 (May-June, 1971).

Table II-8

PERCENTAGE OF STUDENTS ACCORDING TO PLACE OF ORIGIN AND PLACE OF
PRE-UNIVERSITY STUDY AT THE UNIVERSIDAD NACIONAL COLOMBIA 1967

Size	Origin	Study	% of population in relation to total population
Cities over 100,000 inhabitants	52.6	75.3	26.6
Cities between 10,000 and 100,000 inhabitants	34.7	22.5	14.2
Rural area or town under 10,000 inhabitants	11.4	1.3	59.2
Abroad	1.1	0.6	---
No information	0.2	0.3	---
Total	100.0	100.0	100.0

Source: Censo de estudiantes de la Universidad Nacional, 1967. Data taken and presented in a different form from Gonzalo Cataño, "Universidad pública y movilidad social." U.N., No. 5, September 1970, pp. 210-212. DANE, population census 1964, taken from CIAS, Colombia: Universidad popular o elitista, Bogotá, Documento de Trabajo, No. 3, 1971, p. 22.

Table II-9

PERCENTAGE OF STUDENTS AT THE NATIONAL UNIVERSITY ACCORDING
TO TYPE OF PRIMARY AND SECONDARY SCHOOLING COLOMBIA 1967

Type	Primary	Secondary
Public	38.1	44.4
Private	60.7	54.7
Abroad	1.0	0.6
No information	0.2	0.3
Total	100.0	100.0

Source: Censo de Estudiantes, Universidad Nacional de Colombia, 1967. Gonzalo Cataño, op. cit., pp. 207, 209.

Table II-10

SOCIAL STRATIFICATION OF THE UNIVERSITY POPULATION OF THE
UNIVERSIDAD NACIONAL COLOMBIA 1967

Stratum	Self-Classification*	Objective**	Graduates**
High	6.7	8.0	10.3
Middle	87.9	78.3	77.4
Low	5.4	6.7	2.9
No information	----	7.7	9.4

Source: *Robert C. Williamson, "El Estudiante colombiano y sus actitudes," Universidad Nacional, Facultad de Sociología, Monografía Sociológica, No. 13, Bogotá, 1962.

**Censo de Estudiantes, Universidad Nacional. Cited from Cataño, op. cit., p. 220, 224.

Table II-11 compares the percentage of students in public and private universities with natal cities' representation in the total population. Bogotá, with less than 10 percent of the national population, has three times this percentage in the Universidad Nacional and five times in the large private universities. Altogether, cities with populations over 10,000 (40 percent of the population in 1964) composed 87 percent of the enrollment at the Universidad Nacional and almost 100 percent of the enrollment of the largest private universities.³⁵

Discrimination of a cultural nature also occurs via admissions examinations to public universities. Jaime Niño and Lugardo Alvarez, in a detailed study of the admission system at the Universidad del Valle, concluded that these examinations represent a class discrimination clearly oriented to the high and middle class culture.³⁶

A possible measure of opportunities for education might be the difference between educational aspirations and actual schooling. As the social stratum decreases, the difference between actual and desired educational attainment increases. Once again, the educational structure is shown to be highly discriminatory against groups inferior in the occupational scale. Although the data refer only to a sample area of Bogotá, and cannot be taken as

³⁵Rama, p. 65.

³⁶Las Clases sociales y la admisión a la Universidad (el caso de la Universidad del Valle). Monografía de Licenciatura, Departamento de Sociología, Universidad Nacional, 1969, mimeo.

Table II-11

SIZE OF CENTER OF ORIGIN OF THE UNIVERSITY POPULATION
COLOMBIA (Percentages)

Place	% of Population in 1964	% of University Students		
		Nacional	Andes*	Javeriana*
Bogotá	9.5	28.1	58.9	52.0
Medellín and Cali	7.6	10.4	6.8	7.0
Cities over 100,000 inhabitants	10.2	14.1	18.1	17.0
Towns over 10,000 inhabitants	13.6	34.7	10.7	14.0
Under 10,000 inhabitants	59.1	11.4	3.0	9.0
Foreigners and no information	----	1.3	2.0	1.0

*Andes and Javeriana have as scales towns of 20,000 inhabitants.

Source: DANE. Censo de población de 1964. Universidad Nacional: Censo de estudiantes 1967. Instituto de Estudios Internacionales, Berkeley: Encuesta 1964. Data from the Universidad Nacional refers to place of birth and those of other universities to place of residence between ages 6 and 15. From Germán W. Rama, *El Sistema universitario en Colombia* (Bogotá, Universidad Nacional, 1970), p. 65.

representative of the whole country, nor even of Bogotá, they do suggest that even within the urban area, where educational opportunities are greater, and particularly in Bogotá, with the most complete educational system of the country, differences in educational opportunities for different social groups are enormous.

The Colombian educational structure not only excludes the great majority of the population, but is also selective within groups which have some access to educational opportunities. Planeación Nacional asserts: "It has been verified that less than four years of primary education do not rescue an individual from the state of illiteracy. Hence, an educational system which provides only two or three years of education has few satisfactory results."³⁷

³⁷Departamento Nacional de Planeación, *Educación elemental: Análisis de la tasa de retención*, Documento DNP 512, U.R.H. (29 de abril de 1970), p. 3.

Table II-12

MEAN YEARS OF SCHOOLING AND EDUCATIONAL ASPIRATIONS
ACCORDING TO OCCUPATIONAL CATEGORIES BOGOTA 1966

Occupational Category	Mean of Schooling	Educational Aspirations	Difference
Unqualified workers	6.3	14.6	8.3
Qualified workers	7.0	13.2	6.2
Small owners	8.4	14.3	5.9
Clerical	8.8	13.7	4.9
Middle class owners and professionals	10.8	16.1	5.3
High-class bureaucrats, owners, and professionals	14.7	15.8	1.1

Source: Rodrigo Parra S., "Clases sociales y educación en el desarrollo de Colombia," Universidad Nacional, No. 3 (abril-agosto de 1969).

Tumin and Feldman studied in Puerto Rico the "educational take-off point,"³⁸ defined as the quantum of schooling after which the individual's perception and value system change leading him to participate in social development and to seek social mobility. This phenomenon may also reflect actual employment opportunities for people with different degrees of education. Briones and Wisanen³⁹ confirmed Tumin and Feldman's hypothesis for Santiago, Chile, placing the take-off point in Chile between the 7th and 9th grades.

A similar study carried out in Bogotá found the take-off point to be at 8 years of schooling,⁴⁰ effectively eliminating from social mobility worker groups and below. It should be pointed out that the mean schooling of worker groups in this analysis is quite elevated (6-7 years) due to their being urban groups in middle class areas.

³⁸ Melvin M. Tumin and Arnold S. Feldman, "Status, Perspective and Achievement: Education and Class Structure in Puerto Rico," American Sociological Review (August 1956), p. 465.

³⁹ Guillermo Briones and F. B. Wisanen, "Aspiraciones educacionales, modernización e integración urbana," Publicación Interna no. 3, Departamento de Sociología, Universidad Nacional (Bogotá, 1968).

⁴⁰ Rodrigo Parra S., "Clases sociales y educación en el desarrollo de Colombia," Universidad Nacional, No. 3 (abril-agosto de 1969).

This exclusion is clearly reflected in the statistics on secondary education. In a sample of secondary schools in Bogotá, Jaime Rodríguez found that only 2.6 percent of 6th grade students may be considered working class, while the middle class and above represents approximately 20 percent.⁴¹

The data up to this point have been basically horizontal, representing fixed points in time. In addition, the data have basically separated information in regard to urban concentrations and class. The index of the qualifications of primary school teachers between 1940 and 1967 presented below should provide data which are evolutionary (data are presented through successive years) while indicating at the same time rural-urban and public-private differentials. The importance of this index is that a high proportion of the primary school teachers do not hold the equivalent of certification. Teachers with a diploma, theoretically better teachers, should distribute selectively between private and public schools and between rural and urban areas.

The data in Table II-13 show the evolution in a temporal series of the index of graduates. A general index for the whole country is represented, so that the evolutions of the specific index (public and private, urban and rural) in reference to a total percentage may be compared. Teachers with diplomas increased from 30 percent to almost 60 percent between 1940 and 1967. In addition, the difference between public and private teacher qualifications in urban areas is diminishing. The percent of graduate teachers in rural public primary and rural private schools is usually below the general average and always below the urban indices. Rural private teachers are almost always more qualified than rural public ones.

The index of rural private school teachers has some special characteristics; between 1946 and 1950, the number of accredited teachers shows an intense increase, approaching 100 percent. This abrupt leap seems to be due more to statistical problems--the difficulty of collecting data in rural areas, the even greater difficulty of compiling data about private education, and a very low number of teachers in rural private education until 1955 (between 6 and 142). Statistics become more reliable in 1955, when these mentioned phenomena disappear. After 1955 the rural private lines begin to increase rapidly and to separate more and more from the rural public.

In summary, the most visible characteristic of the Colombian educational system is its exclusion of a vast majority of the population from educational services and its incapacity to retain students in school. In addition, the hypotheses of the concentration of educational opportunities along class and urban lines are empirically supported.

⁴¹"El Sistema de bachillerato colombiano," paper presented at the II Colombian Congress of Sociology (Bogotá, 1967).

Table II-13

PERCENTAGE OF TEACHING STAFF WHO ARE GRADUATES WORKING IN
PUBLIC AND PRIVATE URBAN AND RURAL SCHOOLS
COLOMBIA 1940-1967

Year	Public		Private		Total Percentage
	Urban	Rural	Urban	Rural	
1940	45.2	13.1	59.5	8.3	32.2
1941	50.2	16.5	66.3	18.2	37.8
1942	51.7	19.7	60.2	5.6	38.9
1943	50.4	17.7	58.7	4.2	37.0
1944	51.3	17.7	55.5	4.2	36.8
1945	50.8	19.7	57.7	25.4	36.4
1946	52.2	18.0	59.4	86.5	37.1
1947	52.3	12.6	56.0	93.6	37.5
1948	51.6	18.5	61.8	90.6	37.1
1949	49.9	18.0	54.6	93.3	35.1
1950	49.3	18.1	62.4	11.4	36.4
1951	48.3	18.2	67.1	6.0	38.1
1952	49.9	19.7	75.6	33.3	40.0
1953	45.4	15.9	53.8	18.4	35.2
1954	45.6	14.1	56.4	22.9	35.8
1955	47.8	16.0	57.6	37.6	38.0
1956	-----	-----	-----	-----	-----
1957	51.8	18.2	65.5	38.1	43.3
1958	53.4	19.5	63.8	35.4	44.0
1959	53.7	19.9	63.3	47.3	44.2
1960	53.3	19.3	56.7	32.6	42.5
1961	55.5	21.8	59.2	33.5	44.9
1962	56.1	24.3	58.8	42.5	45.9
1963	58.6	28.4	61.9	43.6	49.0
1964	61.1	31.0	62.2	42.9	50.9
1965	64.1	35.0	65.6	54.9	54.7
1966	47.3	17.6	57.8	46.5	39.8
1967	70.2	39.1	66.6	67.0	59.4

Source: Adapted from Instituto Colombiano de Pedagogía (ICOLPE),
Personal docente de nivel primario: Series estadísticas básicas
(Bogotá, 1971, mimeo).

CHAPTER III: REGIONAL CONCENTRATION AND HIGHER EDUCATION: A GROWING DISEQUILIBRIUM*

Part 1: Methodology

In this chapter the subject matter is inter-regional relationships. Region is here defined as the geographical space formed by a "pole" or "poles" which have commercial, capital, and human resources relationships with a given area. (In this sense, rural-urban differentials are a specific aspect of intra-regional analysis.)

Our analysis is carried out by means of student migration data. The tables presented in this chapter are elaborations of two "origin-destination" matrices built up with data from several government educational agencies (Instituto Colombiano para el Fomento de Educación Superior, ICFES, Departamento Administrativo Nacional de Estadística, DANE, and Asociación Colombiana de Universidades). In general, the same reliability can be given to these data as to those of the preceding chapter.

The phenomenon of university migrations should not be considered as an isolated fact in the process of social change in Colombia. Because this process is fundamentally inter-regional, it is necessary to frame it according to a model of regional analysis. Such an analysis cannot be founded on the dual economy theory (the isolated development or underdevelopment of dynamic or backward regions). On the contrary, the analysis presented here insists that the development of dynamic and backward regions are closely interrelated and interdependent to a great extent.

Regional development can be observed from a triple perspective:

- 1) From the "intra-regional inter-regional" perspective--a study of the internal characteristics of one or several regions.
- 2) From the "static-dynamic" perspective--a study of regional structure or of flows along regional structural components with changes through time.
- 3) From the development perspective--a study of the effects of development programs in industry, the university, etc., on the economy or on the participation of specific groups of the population. The phenomena of stratification and social classes, marginal groups, etc., are included in this approach.

This study intends to analyze the situation of higher education in all the regions of the country utilizing portions of all three approaches. It will cover fundamentally inter-regional flows in higher education (i.e., inter-regional educational situations and their evolution) during the period 1966-1969. This data will be used to define the role of the Colombian educational system in the redistribution or concentration of development resources.

* An earlier version of this chapter was written with María Eugenia de Mendoza and Nhora Bateman at Planeación Nacional.

The following regions will be considered over a 4-year period: Costa Atlántica, Nor-Occidental, Central, Sur-Occidental, Centro-Occidental, Nor-Oriental.¹

Thus, this is a "short-term" study; in a long-term analysis, the intensity of the trends found could exhibit significant variations. At this point, however, it appears that such variations would not affect the trends described.

Three main aspects of the educational system are analyzed:

- a) Regional participation in the higher education system, and the increase or decrease of this participation during the period 1966-1969;²
- b) How mechanisms of university polarization, retention, attraction, and expulsion--all migratory phenomena--function in each region; and
- c) The effects of a and b combined in each region, a) describing a situation (concentration), and b) a process (polarization).

Part 2: Regional Participation in the University System

A remarkable increase in the university enrollment occurred in the 1966-1969 period. This increase is not distributed evenly; on the contrary, unbalanced inter-regional conditions are found both in the absolute number of students and in the percent increases in enrollment. Even when total regional population versus university age population are considered, differences in participation persist. This implies that the concentration of regional participation in universities is due not only to the size of the regional population but to other causes as well.

In Part 2 only relative regional participation in the educational system and changes in the degree of participation during the period studied will be considered. Parts 3 and 4 of this chapter will discuss the mechanisms through which concentration occurs, together with some of the reasons behind it. Table III-1 shows that the university system has grown a total of 75 percent between 1966 and 1969, which can be considered a very substantial increase. The national rate of university registration growth during this period is 18.73.³

¹The regions analyzed in the study are those defined by the Model of Regionalization of Colombia, Planeación Nacional. However, their limits correspond to those of the Departments (States) due to the difficulty of finding data at a municipal (county) level.

²No data are available before 1966.

³Calculated through the formula:

$$R = \text{Nat. Log } \frac{\text{Registration 1969}}{\text{Registration 1966.}}$$

Table III-1

NUMBER AND PERCENTAGE OF UNIVERSITY STUDENTS ACCORDING
TO REGION OF ORIGIN, PERIOD 1966-1969

Region	1966		1967		1968		1969	
	Students	%	Students	%	Students	%	Students	%
Costa Atlántica	7,136	14.73	8,412	14.88	9,546	14.76	12,436	14.63
Central	18,334	37.83	21,584	38.19	23,866	36.93	33,525	39.45
Sur-Occidental	6,452	13.31	7,717	13.66	9,058	14.01	11,011	12.95
Nor-Occidental	7,771	16.04	8,939	15.82	10,562	16.34	13,720	16.04
Centro-Occidental	4,173	8.61	4,795	8.49	5,309	8.22	6,894	8.11
Nor-Oriental	4,587	9.48	5,069	8.96	6,294	9.74	7,414	8.72
Totals	48,453	100.00	56,516	100.00	64,635	100.00	85,000	100.00

Source: Sources for this and the following tables in this chapter are indicated on p. 41, par. 2.

A. Regional Participation According to Region of Origin

The distribution of university students according to their regional origin shows how many students from each region contribute to the national system. ("Region of origin" refers to all the students born in a given region and studying in any part of the country.) Table III-1 shows regional contributions in the following order: Central (between 37.83 and 39.45 percent); Nor-Occidental (16.34 to 15.82 percent); Costa Atlántica (14.73 to 14.63 percent); Sur-Occidental (13.31 to 12.95 percent); Nor-Oriental (9.48 to 8.72 percent); and Centro-Occidental (8.61 to 8.11 percent). Thus, the first two regions contain 55.59 percent of all university students in Colombia for 1969.

Increase or decrease of college students according to region of origin:

The data in Table III-2 refer to the percentage of increase of students from each region with respect to the total national increase of students; i.e., which region or regions are absorbing a larger or smaller proportion of the increase in enrollment during the period considered.

The order of regions according to their degree of participation in the increases is very changeable between 1966 and 1969. The Central region is the only one to maintain its position, always leading with the greatest increment. However, during the period 1967-1968, its increase diminished (from 40.31 percent to 28.11 percent) but later went back (to 47.43 percent). By 1969, the Central and Nor-Occidental regions contained 62.93 percent of the total national increase.

Table III-2

INCREASE OR DECREASE OF UNIVERSITY STUDENTS (NUMBER AND PERCENTAGE) ACCORDING TO REGION OF ORIGIN, PERIOD 1966-1969

Region	1966/67		1967/68		1968/69	
	Students	%	Students	%	Students	%
Costa Atlántica	1,276	15.82	1,134	13.96	2,890	14.20
Central	3,250	40.31	2,282	28.11	9,659	47.43
Sur-Occidental	1,265	15.69	1,341	16.52	1,953	9.58
Nor-Occidental	1,168	14.49	1,623	19.99	3,158	15.50
Centro-Occidental	622	7.71	514	6.33	1,585	7.79
Nor-Oriental	482	5.98	1,225	15.09	1,120	5.50
Totals	8,063	100.00	8,119	100.00	20,365	100.00

Population of the region and university participation according to region of origin:

The disequilibria analyzed above may be due to the fact that some regions have a larger total population and hence greater participation than others. To prove this hypothesis, the proportion of the total population is compared to the proportion of university students for each region for 1966 and 1969. A positive sign indicates a greater proportion of students than population, a negative sign the contrary.

Table III-3 shows that the proportion of students does not correspond to the proportion of population of the regions. The Central region shows the highest positive balance in 1966 (7.0 percent), and 1969 (8.1 percent); i.e., it has a larger proportion of university students than of total population when compared to all other regions. The Costa Atlántica and Sur-Occidental regions show a deficit of university students in relation to their population.

Regional population of college age and university participation:

Since migratory effects of the total inter-regional population may be selective by age, we have included Table III-4 comparing college age population (20-24 years old) and the proportion of university students in each region. The same trends (with slight variations) emerge, with the Central region leading, and so on.

Table III-3

TOTAL POPULATION AND PERCENTAGE OF DISTRIBUTION OF
UNIVERSITY STUDENTS ACCORDING TO THE REGION OF ORIGIN
1966-1969

Region	1966			1969		
	% Population	% Students	Differ- ence	% Population	% Students	Differ- ence
Costa Atlántica	18.9	14.7	-4.2	18.8	14.6	-4.2
Central	30.8	37.8	7.0	31.4	39.5	8.1
Sur-Occidental	17.6	13.3	-4.3	17.5	13.0	-4.5
Nor-Occidental	15.5	16.1	0.6	16.0	16.1	0.1
Centro-Occidental	8.4	8.6	0.2	7.4	8.1	0.7
Nor-Oriental	8.8	9.5	0.7	8.9	8.7	-0.2
Totals	100.0	100.0		100.0	100.0	

Table III-4

PERCENTAGE DISTRIBUTION OF TOTAL POPULATION AND OF
UNIVERSITY STUDENTS OF COLLEGE AGE (20-24 YEARS)
ACCORDING TO REGION OF ORIGIN 1966-1969

Region	1966			1969		
	% *Population	% Students	Differ- ence	% Population	% Students	Differ- ence
Costa Atlántica	18.3	14.7	-3.6	17.7	14.6	-3.1
Central	30.7	37.8	7.1	30.9	39.5	8.6
Sur-Occidental	18.6	13.3	-5.3	13.0	13.0	-4.7
Nor-Occidental	15.3	16.1	0.8	16.1	16.1	-0.3
Centro-Occidental	8.6	8.6	0.0	8.1	8.1	-0.5
Nor-Oriental	8.5	9.5	1.0	8.7	8.7	0.0
Totals	100.0	100.0		100.0	100.0	

*These percentages do not include the habitants of the Meta or the Guajira.

Higher education coefficient according to region of origin:

The coefficients in Table III-5 indicate the proportion of college age population (20-24) that actually enroll in the universities.

The highest regional coefficient is that of the Central region, followed by the Nor-Oriental and Nor-Occidental regions, with the lowest coefficient belonging to the Sur-Occidental region.

For 1966, only two regions are below the national mean coefficient: the Sur-Occidental and the Costa Atlántica; for 1969, two more are added: the Centro-Occidental and the Nor-Occidental. At the same time, the Central region's coefficient above the mean became larger, accentuating the tendency toward an even greater imbalance.

Growth rates of the university population according to region of origin:

According to Table III-4, the Central region has the largest percentage of university students enrolled in the country. In addition, it possesses the highest growth rate of university students. From these two facts we can see the following trend: the Central region will contain a growing proportion of university students born in this same region.

B. Regional Participation According to Region of Study

In this section, only the participation of the region in terms of its universities' participation in the national system is analyzed. The dynamics of regional university growth, such as university migration and retention, will be studied later in this report.

University students according to region of study:

According to Table III-6, the order in which the regions participate remains constant over the four year period: Central, Nor-Occidental, Sur-Occidental, Costa Atlántica, Centro-Occidental, and Nor-Oriental. The Central region has the largest percentage of students according to region of study--in effect, more than half the students in the country are concentrated here.

When a comparison is made of university participation according to region of study and according to region of origin (Figure III-1), it can be determined that, including the student migratory effect, the concentration of educational resources in the Central region has increased.

Increase or decrease of university students in the region of study:

Table III-7 indicates that the Central region has the highest percentage increase of numbers of students; in addition, that increase shows a marked tendency towards growth. Since the Central region initially had the highest educational base, inequalities in inter-regional distribution of educational resources are becoming even more pronounced.

Table III-5

COEFFICIENTS OF UNIVERSITY ENROLLMENT ACCORDING TO
REGION OF ORIGIN 1966-1969

Region	Coefficient 1966 (A)	Relation to National Mean	Coefficient 1969 (B)	Relation to National Mean	Difference (B-A)
Costa Atlántica*	2.7	-0.8	3.8	-1.0	1.1
Central**	4.2	0.7	6.0	1.2	1.8
Sur-Occidental	2.5	-0.0	3.5	-1.3	1.0
Nor-Occidental	3.6	0.1	4.7	-0.1	1.1
Centro-Occidental	3.5	0.0	4.5	-0.3	1.0
Nor-Oriental	3.8	0.3	4.8	0.0	1.0
National Mean	3.5		4.8		1.3

*Gujaira not included.

**Meta not included.

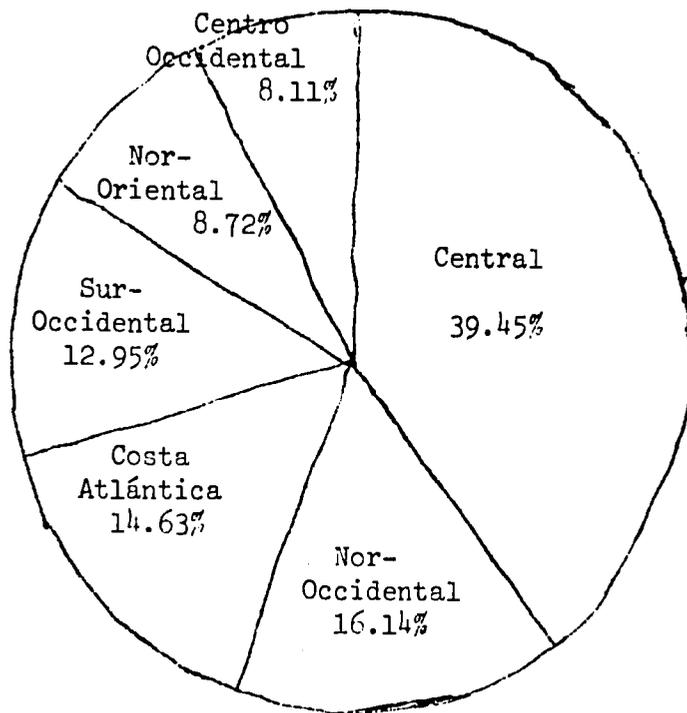
Table III-6

NUMBER AND PERCENTAGE DISTRIBUTION OF UNIVERSITY STUDENTS
ACCORDING TO REGION OF STUDY 1966-1969

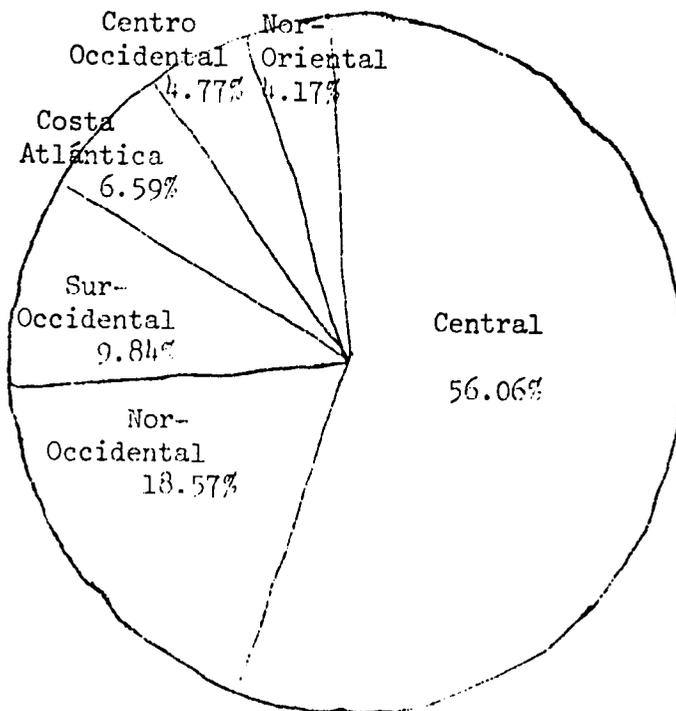
Region	1966		1967		1968		1969	
	Students	%	Students	%	Students	%	Students	%
Costa Atlántica	3,268	6.75	3,983	7.05	4,217	6.52	5,604	6.59
Central	29,328	60.52	32,052	56.71	35,330	54.65	47,653	56.06
Sur-Occidental	4,604	9.50	5,798	10.26	7,141	11.05	8,368	9.84
Nor-Occidental	7,586	15.66	9,938	17.58	12,061	18.66	15,782	18.57
Centro-Occidental	2,113	4.36	2,700	4.78	3,015	4.67	4,052	4.77
Nor-Oriental	1,554	3.21	2,045	3.62	2,871	4.45	3,541	4.17
Totals	48,453	100.00	56,516	100.00	64,635	100.00	85,000	100.00

Figure III-1

PROPORTION OF STUDENTS ACCORDING TO REGION OF ORIGIN
AND REGION OF STUDY, 1969



A - Proportion of students according to region of origin, 1969



B - Proportion of students according to region of study, 1969

Table III-7

NUMBER AND PERCENTAGE INCREASE OR DECREASE OF UNIVERSITY STUDENTS ACCORDING TO REGIONS 1966-1969

Region	1966/67		1967/68		1968/69	
	Students	%	Students	%	Students	%
Costa Atlántica	715	8.87	234	2.89	1,387	6.81
Central	2,724	33.77	3,278	40.38	12,323	60.51
Sur-Occidental	1,194	14.81	1,343	16.54	1,227	6.03
Nor-Occidental	2,352	29.17	2,123	26.15	3,721	18.27
Centro-Occidental	587	7.29	315	3.86	1,037	5.09
Nor-Oriental	491	6.09	826	10.18	670	3.29
Totals	8,063	100.00	8,119	100.00	20,365	100.00

The Central, Nor- and Sur-Occidental regions have between 77.75 percent and 84.81 percent of the increment of university students during this period. However, the most significant increase is that of number of students to 20,365.

Regional population and university population according to region of study:

The main objective of this comparison is to observe the influence of university migrations. Once again, according to Table III-8, the Central region comes out ahead, and, when Tables III-8 and III-3 are compared, a favorable migration relationship for the Central region emerges. In addition to the Central region, only the Nor-Occidental shows a positive ratio.

This analysis implies that, once the effects created by inter-regional dynamics are added, the concentration of educational advantages, even if the size of the regional population is controlled, tends to increase.

Regional population of college age and university population according to region of study:

Table III-9 shows the persistence of tendencies demonstrated above while taking into account the possibility of selective migrations according to age.

University schooling coefficient according to region of study:

When the region of study is compared to the region of origin (Table III-10), the coefficients decrease for the majority of regions. The exception is the Central region, which increases its coefficient, and, to a

Table III-8

PERCENTAGE DISTRIBUTION OF TOTAL POPULATION AND UNIVERSITY STUDENTS ACCORDING TO REGION OF STUDY

Region	1966			1969		
	% Population	% Students	Differ- ence	% Population	% Students	Differ- ence
Costa Atlántica	18.9	6.7	-12.2	18.8	6.6	-12.2
Central	30.8	60.5	29.7	31.4	56.0	24.6
Sur-Occidental	17.6	9.5	-8.1	17.5	9.8	-7.7
Nor-Occidental	15.5	15.7	0.2	16.0	18.6	2.6
Centro-Occidental	8.4	4.4	-4.0	7.4	4.8	-2.6
Nor-Oriental	8.8	3.2	-5.6	8.9	4.2	-4.7
Totals	100.0	100.0		100.0	100.0	

Table III-9

PERCENTAGE DISTRIBUTION OF TOTAL POPULATION OF COLLEGE AGE (20-24) AND OF UNIVERSITY STUDENTS ACCORDING TO REGION OF STUDY 1966-1969

Region	1966			1969		
	% Population	% Students	Differ- ence	% Population	% Students	Differ- ence
Costa Atlántica	18.3	6.7	-11.6	17.7	6.6	-11.1
Central	30.7	60.5	29.8	30.9	56.0	25.1
Sur-Occidental	18.6	9.5	-9.1	17.7	9.8	-7.9
Nor-Occidental	15.3	15.7	0.4	16.4	18.6	2.2
Centro-Occidental	8.6	4.4	-4.2	8.6	4.8	-3.8
Nor-Oriental	8.5	3.2	-5.3	8.7	4.2	-4.5
Totals	100.0	100.0		100.0	100.0	

Table III-10

SCHOOL YEAR COEFFICIENT ACCORDING TO REGION OF STUDY 1966-1969

Region	1966		1969		Difference (B-A)
	Coeffi- cient (A)	Relation to National Mean	Coeffi- cient (B)	Relation to National Mean	
Costa Atlántica	1.3	-2.2	1.8	-3.0	0.5
Central	6.8	3.3	8.7	3.9	1.9
Sur-Occidental	1.8	-1.7	2.7	-2.1	0.9
Nor-Occidental	3.6	0.1	5.4	0.6	1.8
Centro-Occidental	1.8	-1.7	2.7	-2.1	0.9
Nor-Oriental	1.3	-2.2	2.3	-2.5	1.0
National Mean	3.5		4.8		1.3

lesser degree, the Nor-Occidental region. Indeed, these two regions are the only ones to have coefficients higher than the national mean.

It is necessary here to bring out the phenomenon expressed in Figure III-1: the degree of concentration of university students augments when the region of study is considered in relation to the region of origin. This shows that student migration explains a fundamental part of the backwardness and/or growth of regional universities. Thus, a study of regional university disequilibria must include a treatment of inter-regional university relations and not only the problems of stagnation or development of the various university systems in isolation.

In summary, the preceding analysis demonstrates that in the national university system there exists a highly imbalanced distribution of university students in the different regions. The Central region, and to a lesser degree the Nor-Occidental, have an unevenly high proportion of the students in the country, a proportion which is constantly augmenting. The same regions consistently attract more students and polarize higher education even further. The mechanisms through which this polarization is carried out are considered in the next part.

Part 3: Regional Interchanges: Polarization and the University

"Polarization" here refers to the process and principal mechanisms of university students' migration. These mechanisms lead to the concentration of students in certain urban centers. What we study, therefore, is the capacity of regional university systems to attract, retain, or repulse

students. A side effect will be a study of the capacity of each region to produce a supply of high school graduates and retain them in the local universities. Our analysis is comparative in two senses: a) the capacities of the different regions are compared, and b) the changes in regional capacities are compared.

A. Retention

"Retention" means the capacity of regional universities to keep their native students. In order to measure retention, the proportion of native students registered in their region of origin is compared to the national total of students registered in their region of origin; increases and decreases, the growth rate of "born residents,"⁴ and the proportion of born-residents to students studying outside of their region of origin are also measured.

Born-residents according to region of origin:

The greatest proportion of born-residents is found in the Central region (Table III-11) followed by the Nor-Occidental region. Together these two regions have between 72.10 percent and 72.00 percent of "born-residents" in 1966-1969. The other four regions have born-residents in the following order: Sur-Occidental, Costa Atlántica, Centro-Occidental, and Nor-Oriental.

Table III-11

NUMBER AND PERCENTAGE OF BORN-RESIDENT STUDENTS ACCORDING TO REGION 1966-1969

Region	1966		1967		1968		1969	
	Students	%	Students	%	Students	%	Students	%
Costa Atlántica	2,996	9.58	3,651	9.43	3,821	8.68	5,132	8.65
Central	16,978	54.32	20,082	51.86	22,154	50.30	31,122	52.46
Sur-Occidental	3,360	10.75	4,398	11.36	5,368	12.19	6,408	10.80
Nor-Occidental	5,556	17.78	7,393	19.09	8,782	19.94	11,595	19.54
Centro-Occidental	1,353	4.33	1,816	4.70	2,004	4.55	2,845	4.80
Nor-Oriental	1,012	3.24	1,379	3.56	1,913	4.34	2,223	3.75
Totals	31,255	100.00	38,721	100.00	44,042	100.00	59,325	100.00

⁴In order to simplify terminology, the university students registered in their region of origin will be called "born-residents."

Increase or decrease of born-residents:

Increases of born-residents are concentrated in the Central and Nor-Occidental regions as well (Table III-12). In addition, Table III-12 implies a tendency towards an increase of this concentration. Rates in the Sur-Occidental and Nor-Oriental regions grew between the periods 1966-1967 and 1967-1968, but suffered a strong decrease during the following period.

Growth rates of born-residents:⁵

These rates appear in the following order:

Nor-Oriental (29.29 percent), Nor-Occidental (24.52 percent), Centro-Occidental (24.24 percent), Sur-Occidental (21.52 percent), Central (20.20 percent), and Costa Atlántica (17.93 percent). Translated into absolute numbers, this means that the Nor-Oriental region between 1966 and 1969 went from 1,012 born-residents to 2,223 and the Central region from 16,978 born-residents to 31,122; i.e., growth rates and absolute increases in numbers may yield quite different results.

Proportion of born-resident students in relation to the total of students born in the region:

This analysis permits us to determine to some degree the capacity of each region for retention of its students.

Table III-13 shows that the Central region retains the highest proportion of born-resident students, followed by the Nor-Occidental, Sur-Occidental, Costa Atlántica, and Nor-Oriental regions. The Nor-Occidental region showed the highest variation in the proportion of born-resident students in the period studied.

Proportion of born-resident students in relation to the students registered in the region:

This analysis enables us to determine the degree of retention of each region, taking into account the enrollment capacity of its universities.

Table III-14 yields completely different results from Table III-13. The Costa Atlántica, which had one of the lowest proportions of retention in relation to the students born in the region, appears in this table to have the highest proportion of born-resident student enrollment (91.7 percent and 91.6 percent in 1966 and 1969). The Sur-Occidental and Nor-Occidental regions show very similar patterns. The Central region has the lowest proportion of born-residents to the total student enrollment, and the highest proportion of students born in the region. These two sets

⁵Calculated through the formula $rBR = \frac{\text{Nat. Log. BR 1969}}{\text{BR 1966}}$

Table III-12

NUMBER AND PERCENTAGE OF THE INCREASE OR DECREASE OF BORN-RESIDENT STUDENTS ACCORDING TO REGIONS 1966-1969

Region	1966/67		1967/68		1968/69	
	Students	%	Students	%	Students	%
Costa Atlántica	655	8.77	170	3.19	1,311	8.58
Central	3,104	41.58	2,072	38.94	8,968	58.68
Sur-Occidental	1,038	13.90	970	18.23	1,040	6.80
Nor-Occidental	1,837	24.60	1,398	26.10	2,813	18.41
Centro-Occidental	465	6.23	186	3.50	841	5.50
Nor-Oriental	367	4.92	534	10.04	310	2.03
Totals	7,466	100.00	5,321	100.00	15,283	100.00

Table III-13

PERCENTAGE OF BORN-RESIDENTS IN COMPARISON TO THE TOTAL OF STUDENTS BORN IN THE REGION

Region	1966	1967	1968	1969
Costa Atlántica	42.0	43.4	40.0	41.3
Central	92.6	93.0	92.8	92.8
Sur-Occidental	52.1	55.7	59.3	58.2
Nor-Occidental	71.5	82.7	83.1	84.5
Centro-Occidental	32.4	37.9	37.7	40.6
Nor-Oriental	22.1	27.2	30.4	30.0

Table III-14

PERCENTAGE OF BORN-RESIDENT STUDENTS AMONG ALL STUDENTS REGISTERED IN THE REGION

Region	1966	1967	1968	1969
Costa Atlántica	91.7	91.7	90.6	91.6
Central	57.9	62.7	62.7	65.3
Sur-Occidental	73.0	75.9	75.2	76.6
Nor-Occidental	73.2	74.4	72.8	73.5
Centro-Occidental	64.0	67.3	66.5	69.1
Nor-Oriental	65.1	67.4	66.6	62.8

of statistics together indicate that the Central region has the highest capacity both of attraction and of retention. The case of the Costa Atlántica and Nor-Oriental regions is just the opposite.

Table III-15 indicates that only the Central and, since 1967, the Nor-Occidental regions have the capacity to absorb the total number of the students born in the region.

Differences between the proportion of students born in the region who might be studying there because of its registration capacity and its retention capacity are represented by Table III-16. In the case of the Central and Nor-Occidental regions, the percentages indicate the proportion of students needed to have a retention of 100%. In the case of the other regions, whose registration capacity cannot absorb the total of students born in the region, the percentages indicate the proportion of born-residents which might increase its retention. This would happen if registration rolls would be filled totally with born-resident students.

B. Attraction

Migrant university students number 17,198 in 1966, 17,795 in 1967, 20,593 in 1968, and 25,721 in 1969. Inter-regional migrants represent, in the same period, a minimum of 30.3 percent and a maximum of 35.5 percent of the total country-wide university registration. Taking 1966 as the base year, the percent increase of migrations is the following: 3 percent in 1967, 20 percent in 1968, and 50 percent in 1969. The incidence of students outside of their region of origin is becoming more and more important in regional university development, indicating that university development cannot be seen as an internal problem of each separate region, but instead must be studied in terms of inter-regional relationships.

Table III-15

RATIO OF STUDENTS REGISTERING IN THE REGION TO THE TOTAL
NUMBER OF STUDENTS BORN IN THE REGION, 1966 to 1969

Region	1966	1967	1968	1969
Costa Atlántica	45.80	47.35	44.18	45.06
Central	159.97	148.50	148.03	142.14
Sur-Occidental	71.36	75.13	78.84	76.00
Nor-Occidental	97.62	118.18	114.19	115.03
Centro-Occidental	50.64	56.31	56.79	58.78
Nor-Oriental	33.88	40.34	45.61	47.76

Table III-16

DIFFERENCE BETWEEN REGISTRATION AND RETENTION
OF BORN-RESIDENTS

Region	1966	1967	1968	1969
Costa Atlántica	3.8	3.0	4.2	3.8
Central	7.4	7.0	7.2	7.2
Sur-Occidental	19.3	19.4	19.5	17.8
Nor-Occidental	26.1	17.3	16.9	15.5
Centro-Occidental	18.2	18.4	19.1	18.2
Nor-Oriental	11.8	13.1	15.2	17.8

Analyzing channels ("attraction" and "repulsion" in this paper) which allow the interchange of university students among regions is of primary importance in understanding these relationships. Attraction is the second fundamental mechanism that influences regional university polarization. "Attraction" means the capacity of regional universities to lure university students emigrating from other regions.

University immigration according to regions:

The ability to attract university students is not equally distributed among regions. According to Table III-17, the Central region (attracting between 71.82 percent and 64.27 percent) and the Nor-Occidental region (between 11.80 percent and 16.28 percent) together account for 80.55 to 83.62 percent of the national total of migrants in 1966 and 1969. At the other extreme, Costa Atlántica attracts between 1.58 percent and 1.9 percent of the national total.

Increase or decrease of university immigration according to regions:

Between 1966 and 1967, immigrants to the Central region decreased by 380 students, while the Nor-Occidental and the Sur-Occidental increased. After this, the Central region recovered its primacy. (See Table III-18.)

The Nor-Occidental and Sur-Occidental regions have suffered strong decreases in immigrants during the period. By 1969, the Central and Nor-Occidental regions accounted for 83.13 percent of the national total increase.

Table III-17

NUMBER AND PERCENTAGE OF UNIVERSITY STUDENT IMMIGRATION
ACCORDING TO REGIONS 1966-1969

Region	1966		1967		1968		1969	
	Students	%	Students	%	Students	%	Students	%
Costa Atlántica	272	1.58	332	1.86	396	1.92	472	1.84
Central	12,350	71.82	11,970	67.27	13,176	63.99	16,531	64.27
Sur-Occidental	1,244	7.23	1,400	7.87	1,773	8.61	1,960	7.62
Nor-Occidental	2,030	11.80	2,545	14.30	3,279	15.92	4,187	16.82
Centro-Occidental	760	4.42	882	4.96	1,011	4.91	1,253	4.87
Nor-Oriental	542	3.15	666	3.74	958	4.65	1,318	5.12
Totals	17,198	100.00	17,795	100.00	20,593	100.00	25,721	100.00

Table III-18

NUMBER AND PERCENTAGE OF INCREASE OR DECREASE OF UNIVERSITY
STUDENT IMMIGRATION ACCORDING TO REGIONS 1966-1969

Region	1966/67		1967/68		1968/69	
	Students	%	Students	%	Students	%
Costa Atlántica	60	10.05	64	2.29	76	1.48
Central	-380	-63.65	1,206	43.10	3,355	65.42
Sur-Occidental	156	26.13	373	13.33	187	3.65
Nor-Occidental	515	86.26	734	26.23	908	17.71
Centro-Occidental	122	20.44	129	4.61	242	4.72
Nor-Oriental	124	20.77	292	10.44	360	7.02
Totals	597	100.00	2,798	100.00	5,128	100.00

Ratio of immigration:

This measure controls for the size of the university population of the region. The relevant fact here is the proportion of immigrants to born-residents, measured by the ratio of immigration.⁶ The Central, Centro-Occidental, and the Nor-Oriental regions show the highest ratio of immigration during the period. (See Table III-19.) The Nor-Occidental and Sur-Occidental regions have an intermediate position. The Costa Atlántica has the lowest proportion of immigrants.

C. Expulsion

"Expulsion" here means the participation of each one of the regions in the volume of the university emigratory current.

University emigration according to regions and its percentage in relation to total emigration:

Emigration, as a total current whose volume is necessarily equal to the volume of immigration, shows the expulsion of students from their own region. These students compose immigration from the point of view of the other regions.

⁶ Calculated through formula $r = \frac{\text{Immigrants}}{\text{Born-residents}} \times 100.$

Table III-19

RATIO OF STUDENT IMMIGRANTS TO TOTAL BORN-RESIDENTS

Region	1966	1967	1968	1969
Costa Atlántica	9.08	9.09	10.36	9.20
Central	72.74	59.61	59.47	53.12
Sur-Occidental	37.02	31.83	33.03	30.59
Nor-Occidental	36.54	34.42	37.34	36.11
Centro-Occidental	57.17	48.51	50.45	44.77
Nor-Oriental	53.56	48.30	50.08	59.29

The region with the highest percentage of emigration is Costa Atlántica, followed by the Nor-Oriental, Sur-Occidental, Centro-Occidental, and finally Nor-Occidental and Central regions. These last two regions are those with the highest percentage of born-residents.

Increase or decrease of university emigration:

The increase in emigration during the period studied was 50 percent, with the highest increase occurring between 1968 and 1969 (30 percent). The Costa Atlántica was the region with the highest increase in its emigrations, followed by the Nor-Oriental, Sur-Occidental, and finally the Nor-Occidental regions.

Ratio of emigration:

The ratio of emigration⁷ compares the proportion of emigrants from within each region to born-residents.

In the 4 years considered, 3 regions have a ratio of emigration less than 100.00. In other words, the number of students who remain in the region is higher than the number of emigrants. The Central shows the lowest ratio, followed by the Nor-Occidental (39.87 - 18.33), and finally the Sur-Occidental. The other three regions, Costa Atlántica, Centro-Occidental, and Nor-Oriental, show ratios higher than 100.00.

⁷Ratio of Emigration = $\frac{\text{Emigrants}}{\text{Born-residents}} \times 100.$

Table III-20

NUMBER AND PERCENTAGES OF UNIVERSITY STUDENT EMIGRANTS
ACCORDING TO REGIONS 1966-1969

Region	1966		1967		1968		1969	
	Students	%	Students	%	Students	%	Students	%
Costa Atlántica	4,140	24.07	4,761	26.75	5,725	27.81	7,304	28.40
Central	1,356	7.88	1,502	8.44	1,712	8.31	2,403	9.34
Sur-Occidental	3,092	17.98	3,319	18.65	3,690	17.92	4,603	17.90
Nor-Occidental	2,215	12.88	1,546	8.69	1,780	8.64	2,125	8.26
Centro-Occidental	2,820	16.40	2,977	16.73	3,305	16.05	4,095	15.92
Nor-Oriental	3,575	20.79	3,690	20.74	4,381	21.27	5,191	20.18
Totals	17,198	100.00	17,795	100.00	20,593	100.00	25,721	100.00

Table III-21

NUMBER AND PERCENTAGE OF INCREASE OR DECREASE OF STUDENT
EMIGRANTS ACCORDING TO REGIONS 1966-1969

Region	1966/67		1967/68		1968/69	
	Students	%	Students	%	Students	%
Costa Atlántica	621	104.02	964	34.45	1,579	30.79
Central	146	24.46	210	7.51	691	13.48
Sur-Occidental	227	38.02	371	13.26	913	17.80
Nor-Occidental	-669	-112.06	234	8.36	345	6.73
Centro-Occidental	157	26.30	328	11.72	790	15.40
Nor-Oriental	115	19.26	691	24.70	810	15.80
Totals	597	100.00	2,798	100.00	5,128	100.00

Table III-22

RATIO OF EMIGRATION TO BORN-RESIDENTS BY REGION 1966-1969

Region	1966	1967	1968	1969
Costa Atlántica	138.18	130.40	130.40	142.32
Central	7.99	7.48	7.73	7.72
Sur-Occidental	92.02	75.47	76.47	71.83
Nor-Occidental	39.87	20.91	20.27	18.33
Centro-Occidental	208.43	163.75	164.91	146.30
Nor-Oriental	353.26	267.59	229.01	233.51

Part 4: Regional Interchange and University Development

Two aspects derived from an analysis of the inter-regional interchanges established above seem to be strongly linked: 1) the domination of some regions by others; 2) a very high comparative growth in one or several regions, implying decline in others, due to processes of educational polarization described above. The first aspect derives clearly from the second and shows the importance of studying so-called "secondary effects" created through either deliberate investment or unplanned accelerated regional growth.

The processes of participation, polarization, and domination described above create an inter-regional educational structure and dynamic which constitute the third aspect in our analysis of inter-regional interchange. Analysis of this third aspect stresses the effects produced by inter-regional relationships, especially as possible causes of underdevelopment in higher education in the dominated regions. The following questions will be treated: 1) which regions are subordinate or superordinate in the interchange of university students; 2) which regions obtain advantages, and from which other regions do they obtain them.

A. Regional University Subordination and Superordination

In order to study the interchange of university students, an index of migration and a ratio of migration have been calculated.⁸ Through these two measures, it is possible to observe as a whole the balance of the

$$^8 \text{Index of migration} = \frac{1-E}{1+E} 100$$

$$\text{Ratio of migration} = \frac{1-E}{BR} 100$$

overgrowth of certain sectors of the population ("marginals," for example).

4. Internal interests of the dominant class in the dependent country, especially political interests vital to maintaining their power, may require very costly programs of densuperization, employment, education, and

inter-regional university migration, and answer the first question raised (regional subordination and superordination).

The index of migration:

Table III-23 represents the regional migratory balance (immigrants minus emigrants) in relation to the total regional university migratory movement (immigrants plus emigrants).

In 1966, only the Central region had a positive index, which was quite elevated (80.21). Then came the Nor-Occidental region with an index of -4.36. The other regions showed high negative indexes: Costa Atlántica (-87.67), Nor-Oriental (-73.67), Centro-Occidental (-57.54), and Sur-Occidental (-42.62).

In 1967, the Nor-Occidental region had a positive index, which increases progressively until 1969. The other regions, excepting the Central which has positive indexes during the whole period, show negative indexes with small variations. Thus, the Central region and to a lower degree the Nor-Occidental are in a situation of superordination, and the other regions in a situation of subordination in relation to the migratory volume.

The ratio of migration:

This ratio (Table III-24) indicates the relationship of the migratory balance to the born-residents of the region. Unlike the rate of migration, this ratio takes into account the size of the university, as it includes the born-residents.

Table III-23

INDEX OF MIGRATION OF UNIVERSITY STUDENTS
ACCORDING TO REGIONS 1966-1969

Region	1966	1967	1968	1969
Costa Atlántica	-87.67	-86.96	-87.06	-87.86
Central	80.21	77.70	77.00	74.62
Sur-Occidental	-42.62	-40.67	-35.09	-40.27
Nor-Occidental	4.36	24.42	29.63	32.67
Centro-Occidental	-57.54	-54.29	-53.16	-53.14
Nor-Oriental	-73.67	-69.42	-64.11	-59.50

Table III-24

RATIO OF NET MIGRATION TO TOTAL BORN-RESIDENTS
ACCORDING TO REGIONS 1966-1969

Region	1966	1967	1968	1969
Costa Atlántica	-129.11	-121.31	-139.47	-133.13
Central	64.75	52.13	51.75	45.40
Sur-Occidental	-55.00	-43.64	-35.71	-41.25
Nor-Occidental	-3.33	13.51	17.07	17.78
Centro-Occidental	-152.15	-115.24	-114.47	-101.54
Nor-Oriental	-299.70	-219.29	-178.93	-174.22

The regional distribution of the ratio of migration resembles that of the rate of migration, with primacy in the Central and Nor-Occidental regions. This indicates that the direction of the phenomenon is not modified significantly when the size of the universities of each region is taken into account. Therefore, the primacy of these two regions in the process of university interchange and subordination is clear.

B. The Disequilibria of the Regional University Interchange

In part B, the profits or losses of university students are measured in relation to the university population of the same region. The objective is to explain the degree to which regions are dominated or dominating in their student interchange; in other words, how dependent on other regions they are in terms of higher education. With this purpose, an analysis is presented on the origin and destination of university students of the country.

The proportions in which these interchanges are carried out are shown in Tables III-25 and III-26. These figures are matrixes organized in two senses: 1) the proportion of university students of each region who study in each one of the regions (destination), and 2) the proportion of students from each one of the regions who study in a given region (origin).

In order to simplify the analysis, Figure III-2 is included. Only the migrations with a mean above 3 percent in relation to the students born in each region are represented graphically. The migration figures are equivalent to a mean percentage of the migrations which took place during the period 1966-1969.

The three regions which make up the poles of attraction (Central, Nor-Occidental, and Sur-Occidental) do so, however, in highly varying degrees, with contributions to the Central region being overwhelmingly larger.

Table III-25

ORIGIN OF STUDENTS ACCORDING TO REGIONS OF STUDY 1966-1969

Region of Origin	R E G I O N O F S T U D Y											
	COSTA ATLANTICA				REGION CENTRAL				REGION SUR-OCCIDENTAL			
	1966	1967	1968	1969	1966	1967	1968	1969	1966	1967	1968	1969
Costa												
Atlántica	90.2	90.7	90.8	91.9	8.1	12.2	8.7	9.0	4.6	5.4	4.4	4.7
Region Central	3.2	2.9	3.5	2.4	62.4	64.5	64.8	63.7	7.4	5.8	5.9	7.1
Region Sur-Occidental	0.6	0.7	0.7	0.6	7.4	7.1	6.4	6.9	76.8	76.6	77.5	77.5
Region Nor-Occidental	1.9	1.8	1.5	1.9	3.5	2.1	1.9	1.7	1.7	2.6	2.0	2.2
Region Centro-Occidental	0.1	0.3	0.3	0.3	5.7	4.3	4.2	4.5	5.0	5.1	5.0	4.4
Region Nor-Oriental	2.8	2.4	2.2	1.5	11.3	8.3	12.4	12.6	2.2	1.8	1.5	1.5
Intendencias, Comisarias, y Extranjeros	1.2	1.2	1.0	1.4	1.6	1.5	1.6	1.6	2.3	2.7	3.7	2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Region of Origin	R E G I O N O F S T U D Y											
	REGION NOR-OCCIDENTAL				REGION CENTRO-OCCIDENTAL				REGION NOR-ORIENTAL			
	1966	1967	1968	1969	1966	1967	1968	1969	1966	1967	1968	1969
Costa												
Atlántica	7.8	7.5	10.7	7.7	4.6	4.5	4.2	3.9	7.5	9.0	11.1	17.8
Region Central	3.8	4.1	2.0	4.0	7.9	8.2	8.8	7.3	11.0	10.3	11.0	12.4
Region Sur-Occidental	4.1	3.4	4.5	4.2	13.2	13.1	13.5	13.5	2.9	3.8	3.3	3.2
Region Nor-Occidental	72.4	73.6	72.2	72.4	3.1	3.0	4.4	2.6	0.8	0.8	1.0	1.0
Region Centro-Occidental	7.9	7.5	6.6	7.1	66.6	66.3	64.4	69.6	2.4	1.0	0.9	1.0
Region Nor-Oriental	3.0	2.8	2.9	3.0	3.8	4.3	3.4	2.6	73.7	73.6	71.6	63.6
Intendencias, Comisarias, y Extranjeros	1.0	1.1	1.1	1.6	0.8	0.6	1.3	0.5	1.7	1.5	1.1	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Some regions--the Nor-Oriental and the Costa Atlántica--are in a greater degree of dependency than others--the Sur-Occidental and Centro-Occidental--in relationship to the Central region, whose primacy constitutes the pre-eminent fact in the analysis of the disequilibrium of university interchange.

Another aspect to be considered is the origin of immigrant students. Percentages of student immigration in relation to the regional total of university students fall in the following order: Nor-Oriental, Central, Centro-Occidental, Nor-Occidental, Sur-Occidental, and Costa Atlántica. Only immigratory currents above 5 percent of the regional university population are taken into account. Only 1969 is studied, since percent variations are minimum during that year.

The Central region obtains 12.6 percent of its university students from the Nor-Oriental, representing 60.8 percent of the students born there. The Central sends the Nor-Oriental only 2.4 percent of its own students, which represents 12.4 percent of the registration of the Nor-Oriental.

Forty-four and six-tenths percent of the university students born in the Costa Atlántica form 9.0 percent of the students registered in the Central. Only 0.5 percent of Central's born students migrate to Costa Atlántica, representing 2.4 percent of the registration there. Forty and five-tenths percent of the university students born in the Nor-Occidental region immigrate to the Central, representing only 1.7 percent of the registration of the Central. Two and nine-tenths percent of the university students born in the Central immigrate to the Nor-Occidental, representing 4.0 percent of the registration of the Nor-Occidental. Thirty-six and five-tenths percent of the students born in the Centro-Occidental immigrate to the Central (4.5 percent of the registration of the Central). Migrants from the Central towards the Centro-Occidental are 1.8 percent of the natives and 7.3 percent of the registration of the region. Thirty-four and seven-tenths percent of the native university students go from the Sur-Occidental to the Central, and they amount to 6.9 percent of the registration of the Central. The inverse migratory current is 3.3 percent of the natives of the Central, and 7.1 percent of the registration of the Sur-Occidental.

It is also necessary to determine in which region the university graduates remain once their university training is over. If the migration is concentrated regionally, this would be equivalent to a "brain drain" at an internal level, and would be another factor in regional disequilibrium.

The figures in Table III-27 are from 1966, but it can be inferred that the phenomenon of concentration has been growing, given the tendencies previously analyzed. The Central region has the highest proportion of professionals and personnel of higher educational levels in the country, followed by the Sur-Occidental, Costa Atlántica, Nor-Occidental, and Centro-Occidental, in that order.

Table III-28 compares the proportion of regional population to the proportion of its university graduates. Only the Central region has a positive balance, which is, besides, very high comparatively. All the other regions have negative balances, fluctuating between -0.8 (Nor-Oriental) to -3.5 (Costa Atlántica).

Table III-27

IMMIGRATION OF UNIVERSITY GRADUATES, TECHNICIANS, MANAGERS,
ADMINISTRATORS, AND HIGH FUNCTIONARIES ACCORDING TO REGIONS
1964

	Total of University graduates in each region		Number of University graduates, immigrant to the region	Percentage of immigrant university graduates in relation to the total of university graduates in the region	Percentage of immigrant university graduates in relation to the national total of immigrant university graduates
	No.	%			
Costa Atlántica	50,691	15.1	17,918	35.4	12.9
Central	126,952	37.8	73,071	57.6	52.6
Sur-Occidental	53,744	16.0	23,129	43.0	16.6
Nor-Occidental	47,448	14.1	7,640	16.1	5.5
Centro-Occidental	24,734	7.4	7,180	29.0	5.2
Nor-Oriental	26,582	7.9	6,856	25.8	4.9
Territorios Nacionales	5,693	1.7	3,231	56.8	2.3
Totals	335,844	100.0	139,025	41.4	100.0

Source: DANE, Censo Nacional de Población 1964, (DNP, URH) and presented in the form of regions by the UDRU-DER, Departamento Nacional de Planeación.

Thus, it can be concluded that the concentration of university graduates and highly qualified personnel is not a reflection of the concentration of population at a regional level. Instead, the university graduate concentration seems to follow the concentration of industry, of capital, of administrative services, and of employment supply rather than population density *per se*. It can thus be concluded that the regional disequilibria of university participation are clearly high, not only insofar as the university students are concerned, but also in terms of university graduates and personnel of higher educational levels.

This leads to the conclusion that the relationships of regional inter-change form a mechanism of inter-regional dependency which in good part explains the disequilibria and underdevelopment of some regions.

Table III-28

PERCENTAGE DISTRIBUTION OF UNIVERSITY GRADUATES AND OF
TOTAL POPULATION IN EACH REGION 1964

Region	Percentage of Population	Percentage of University Graduates	Difference
Costa Atlántica	18.9	15.4	-3.5
Central	30.8	38.5	7.7
Sur-Occidental	17.6	16.2	-1.4
Nor-Occidental	15.5	14.4	-1.1
Centro-Occidental	8.4	7.5	-0.9
Nor-Oriental	8.8	8.0	-0.8
Totals	100.0	100.0	

In summary, we have seen a tendency toward a growing concentration in some regions and to a relative growing deprivation in other regions as far as higher education is concerned. The regions in which higher education is concentrated correspond to those regions most strongly and directly related to external dependency (cf. Chapter 1): the Central region (Bogotá), the Nor-Occidental region (Medellín), and the Sur-Occidental region (Cali).

CHAPTER IV: EDUCATION DEPENDENCY AND
THE CREATION OF INTERNAL CONTRADICTIONS

The central purpose of this thesis was to show how dependency and education are interrelated, with education both determined by dependency and in turn determining further dependency. Thus, the educational structure has been seen as a mechanism for ensuring the stability of the system, a mechanism for educating the "right" persons or groups or areas, and as a tool to implement the needs of the foreign interests in Colombia.

If the educational structure has been an obstacle to the majority of the population by depriving them of opportunities to attend school, it has also, for other interests, been a very effective mechanism for adaptation and change to the needs of dependency. The educational structure has geared itself to "modernization," or the creation of a new technocracy to serve the interests of foreign investors in the industrial and public sectors. This adaptation of the educational structure has required large investments (as compared to the national budget) and certainly explains the growth of certain middle class groups and the expansion of the university and urban secondary school systems. It is in this sense that the educational structure can be viewed as both a mechanism for change and adaptation, and as a causal factor in underdevelopment.

The stabilizing role played by the educational structure mainly affects class structure. Education in Colombia has been a very effective mechanism in general for stabilizing the positions of the different classes by offering certain possibilities of mobility to those groups who will enhance the position of the groups in power. Thus, education has been instrumental in the formation of the new middle class or technocracy which plays a double role as an ideological supporter of the dominant class and as a functional mainspring in dependency, a phenomenon accepted and fostered by the dominant class.

The native dominant class is a "dominated dominant class," under pressures by extranational interests controlling the national economy to implement and to further dependency.¹ The situation of the "dominated dominant class" is defined by the contradiction between the needs of national development (and the political effects of stagnation) and the foreign interests which maintain this class in power but induce dependency and underdevelopment.²

¹Antonio Garcia, La Estructura del Atiraso en América Latina (Buenos Aires, Pleamar, 1969).

²For an analysis of the central elements of these phenomena in the particular case of Colombia see: Fred J. Rippy, El Capital norteamericano y la penetración imperialista en Colombia (Medellín, Oveja Negra, 1970); Alvaro Camacho G., Capital extranjero: Subdesarrollo colombiano (Bogotá, Punta de Lanza, 1972); Carlos Castillo C., "Elites y desarrollo," in Rodrigo Parra (ed.), La Dependencia externa y el desarrollo político de Colombia (Bogotá, Universidad Nacional, 1971).

That the educational system is at the same time a mechanism of change and of stabilization can be best understood by an analysis of the contradictions which link the educational system to society. Contradiction is here understood in the Hegelian sense as the dynamics created by the clash of the opposites.³ In the concrete historical case of Colombia, the principal contradictions are of a twofold nature: 1) the contradiction in the basic nature of the capitalist system, i.e., the class contradiction, and 2) the contradiction in the dependent situation of the society. These two are the principal contradictions, the class contradiction being predominant since it refers to the more general situation of the Colombian society as a part of the capitalist system. The contradiction derived from the situation of dependency refers to the specific role that Colombian society plays in the division of labor of the capitalist world: that is, Colombia is a dominated and conditioned part of the capitalist world by means of imperialist relationships.

These two principal contradictions are highly inter-related, and often affect the same social phenomenon. It is, nevertheless, important to separate them (although it has only been done here schematically) because in studying Colombian underdevelopment the dependency contradiction is what principally differentiates Colombia from the industrialized independent and developed capitalist countries. This differentiation is a matter of degree rather than a clear-cut separation.

The importance of understanding these contradictions as fundamental to the notion of dependency, particularly the contradictions generated by institutional factors, has been recognized by Ianni.⁴

Analysis of the educational structure is thus important as a means of understanding its role in shaping the political structure and the distribution of power, and its role in inducing or maintaining contradictions essential to the maintenance of dependency at a given historical moment.

The basic contradiction in the educational system as far as class is concerned is in depriving one class of the chance to attain a meaningful degree of formal education and, correspondingly, in granting to another class a high degree of formal education to be used as a form of control and

³George W. F. Hegel, Hegel's Political Writings (Oxford, Clarendon Press, 1964). For a further theoretical development and application of the concept of contradiction to the analysis of society, see the following works: V. I. Lenin ("the two basic[...] conceptions of development [evolution] are: development as decrease or increase, as repetition, and development as a unity of opposites, the division of one into mutually exclusive opposites and their reciprocal relations.") (Philosophical Manuscripts) as cited in Anne Fremantle, ed., Mao Tse-Tung: An Anthology of His Writings (New York, Mentor Books, 1962). See also Mao Tse-Tung, "On Contradiction" and "Analysis of the Classes in Chinese Society."

⁴O. Ianni, Imperialismo y cultura de la violencia en América Latina (Mexico, Siglo XXI, 1971).

power. The form of this relationship has been changing throughout Colombian history according to the predominant form of dependency. During the colonial period, the contradiction in education was revealed in distinctions made between the aristocracy, white and predominantly Spanish, and the native Indians, Negroes, and racially mixed peoples. To attend a seminary or a university the applicant had to demonstrate his "purity" of blood for several generations. Education was a privilege of the Spanish and of their legitimate descendants, i.e., the sons born in families married by the Catholic Church rites.⁵

After so-called political independence, blood and racial prerequisites for education were weakened although they hardly disappeared. However, the educational structure still did not allow a large proportion of the population to attend school. The lack of a generalized public primary school system made it impossible for the great majority of the population to enter higher education. At that time the university system was not organized nationally but rather regionally, reflecting the export economy of the period which created links between regional ports and Europe and the United States rather than links between regions. By the end of the nineteenth century there were only five universities, two of them in Bogotá, one in Medellín, one in Cartagena, and the other in Popayán.⁶

During the first four decades of this century, at the beginning of the process of urbanization and "modernization," only five new universities were founded (mainly in the thirties) which still survive today. From 1940 to 1966, with the beginning of the new dependency, the shift of foreign investments toward industry, and the continuing and accelerated process of urbanization, 31 new universities have been founded and have survived. This is a very meaningful fact, marking the beginning of a conflict between the dominant class (i.e., the owners of the means of production, here both the old landed aristocracy and the new industrialists) and new groups in the middle classes. The new dependency and accelerated urbanization created a demand for a native technocracy.⁷ An incipient division in the dominant class between landowners and industrialists was apparent in the demands of the latter for an educational system geared to training rank and file workers in industry and services, particularly in urban areas. At the same time, the middle classes were looking desperately for a channel of mobility and the most accessible one was education. This situation involved, then, four interest groups: the "old" dominant class or landed aristocracy, the "new" dominant class or the bourgeoisie, the middle classes, and foreign interests in industry and services. The state did not put enough effort into meeting their needs for educational facilities; consequently, private interests, predominantly of the middle classes and the industrialized segment

⁵G. W. Rama, El Sistema universitario en Colombia (Bogotá, Universidad Nacional, 1970).

⁶Rama.

⁷For a brief analysis of this phenomenon see Chapter I of this paper.

of the dominant class, rushed to found universities and secondary institutions to provide trained personnel for industry and to meet the growing demand of the middle classes for mobility. The middle classes were a necessary ally to the dominant class for accomplishing the "modernization" process, while the middle classes taking part in "modernization" hoped to gain mobility; hence, the underlying clash of interests between these two groups tended to be overlooked by both sides.

The universities founded during this period (1940-1966) show characteristics which confirm the previous analysis: of the 31 universities founded 18 were private, with the dominant class enrolled mainly at the private institutions and the middle classes at the public. This, of course, has been a general tendency with exceptions. For a time student political activism was limited to public universities, but private universities soon started to open their doors to the middle classes and with them came conflicts between the administration and activist groups basically deriving from middle classes' aspirations to social mobility and the incapacity of the system to grant this. Some members of the middle classes are still excluded from higher education, while unemployment and underemployment of university trained personnel is growing very rapidly. It seems that the "modernization" process is reaching a saturation point stymieing the attempts of the dominant class to avoid clashes with the middle classes.

There is also a clash of interests between public policies of "educational services for all" to promote social mobility and "modernization," and the predominance of a private secondary educational system, pointing to a contradiction between the verbally expressed intentions of the government and the interests of the middle and dominant classes in restricting education to their groups by maintaining a private secondary system, thereby excluding the majority of the population for economic reasons.

The dominant class appears to hold two different conceptions regarding the function of education in maintaining the system. Some believe that the most efficient way to keep the "masses" under control is by means of ignorance. Historically, ignorance made class exploitation easier by stifling anything similar to class consciousness or rich-poor consciousness (paternalism is a very effective form of domination when accompanied by generalized ignorance). Others believe that the most efficient way to assure the allegiance of the "masses" is to subdue them in a class controlled process of socialization, leading to an internalization of the value system of the dominant groups and offering some mobility opportunities, particularly within the "modernization" in the last decades. The first concept has been defended by the aristocratic landowners, and has been applied mainly to the exploited rural masses. The second concept is predominantly associated with the industrial bourgeoisie. These two different ideological orientations towards mass education stem from different interests of these two groups in the dominant class. These divergent interests have coincided, nevertheless, with the needs of dependency in the past, creating educated and semi-educated urban groups for urban industrial and service demands, while retaining the traditional structure in the countryside. At present, however, with the urbanization of society and the new dependency, rural-urban migration waves have brought the rural educational problem to an urban setting, and temporarily liberated the

migrant from servile links to his landowner. The migrant to the city achieved in this form a temporary "freedom" from the political system.⁸ At present, illiteracy and a lack of formal education of the now "urban masses" have facilitated the growth of a populist movement.

The first and most striking characteristic of the educational structure in Colombia is its great capacity to adapt itself to further the interests of dependency, and thus foster underdevelopment. The following are examples of how dependency, education, and underdevelopment have been linked:

a) The educational system has contributed to widening the gap between rural and urban populations by concentrating educational services and trained personnel in urban areas where foreign industrial interests are mainly located. Thus, secondary education is almost entirely a prerogative of urban areas, and cities where industry is more developed are the sites of universities, attracting university students and professionals. Whenever campaigns to extend complete primary schooling to rural areas have been launched by the government or some paragovernmental institution, it is because such moves are in their interest and the interests of dependency (for example, discouraging the migration of peasants to the overcrowded city);

b) The model for rural-urban educational relationships discussed above is also in general terms applicable to interregional relationships (cf. Chapter III of this paper).

Policies aimed at the creation of "intermediate poles" as well as big "push policies" for deprived regions, investments in certain sectors or industries (leading sectors) and "problem zones," i.e., the tendency on the part of the state to eliminate or diminish regional inequalities, clashes not only with some class interests but also with foreign interests. The following economic and political aspects will certainly affect education, since regional programs of development are not autonomous.

1. The extreme pauperization of some strategic regions has made it almost impossible for them to participate in the industrial products market. They need special treatment to be integrated into both the industrial market and the dependent situation.

2. The changing interests of the imperialist countries affect the economic, industrial, and social development of various regions independently of their location and/or importance for internal development.

3. It may be in the interest of both (or one) the dominant class and the imperialist country to change the direction of certain processes resulting from dependency, such as the

⁸ J. Graciarena, Poder y clases sociales en el desarrollo de América Latina (Buenos Aires, Paidós, 1967).

overgrowth of certain sectors of the population ("marginals," for example).

4. Internal interests of the dominant class in the dependent country, especially political interests vital to maintaining their power, may require very costly programs of depauperization, employment, education, and so forth, which may or may not coincide with the interests of the imperialist countries.

5. All of these phenomena may also cease at a given moment, and regions or cities which were the focus of national and international interest may be left to their own devices which in the new dependency context means stagnation.

6. Recent years have seen the creation of a group of technocrats, professionals who are apt to implement policies once they are given goals since their idea of science, their development model, and their view of the world represent the interests of the imperialist country. The U.S. seemed to recognize the importance of this factor when it explicitly included as a condition for foreign aid from the U.S. in the "Carta de Punta del Este" in 1961 the creation of offices of National Planning of the Economy. However, some national technocrats are now questioning the scientific models established by the dominant countries, particularly in the social sciences. Other bureaucratic and technocratic groups are interested in enhancing the state's role in investment and industrial growth as a way to increase their own power. These interests may be in conflict with the interests of foreign capital since they represent a nationalistic ideology.

7. Much of what is considered "science" or "scientific knowledge" and applied almost as dogma to third world problems has been predominantly developed in the dominant countries, generally to further their interests. (Even in the United States the so-called "official science" is now under severe criticism.⁹)

Economic deformations induced by dependency create hypertrophy in some of the sectors of the economy and atrophy in others. Thus, the 80% of the population less favored by education has little chance of getting jobs in the industrial sector given imported industrial technology. The resultant hypertrophy of the industrial "reserve army" of marginals and underemployed laborers in unprecedented form in the history of the

⁹ Alvin W. Gouldner, The Coming Crisis of Western Sociology (Chicago, Equinox, 1971).

capitalist system¹⁰ has created new political patterns, particularly in relation to populist and class movements. These masses are now in a conflict of interest, at least in the short run, with unionized workers, a conflict perhaps still latent to a large extent but potentially explosive.¹¹ The basis for this conflict is the clash of interests in obtaining industrial jobs. This situation weakens the power of the workers' unions since there are plenty of potential workers and at the same time creates problems for the state and for landowners, such as organized and systematic land invasions, the large amount of public funds expended in services, and the potential or real political unrest these masses represent. Education has been extolled as the most appropriate means of integration for this group, but this "solution" does not take into account the industrial sector's inability (because of dependency) to create enough new jobs to absorb these people. At this level, the problems of underdevelopment, unemployment, "integration," etc., are not just educational problems relating to unskilled laborers but problems relating to the dependent structure of industry and society in general. In this sense, basic change in the educational system can be expected only if there is a basic change in Colombian society; i.e., if there is a change in the relationship between the dominant class and its national allies and the proletariat and the "marginals," and if there is a change in the relationship between national development needs and foreign interests. (Of course, to be implemented these changes have first to reach the institutional level.) The educational system is thus only a part of the more fundamental phenomenon of the relationship between class structure and dependency, and analysis of the educational system becomes an important element in the analysis of development since education touches intimately on two basic components of underdevelopment--class and dependency.

In conclusion, what has been discussed here is, of course, only one limited aspect of the educational system of Colombia. The dependency approach should be used to analyze and explain other basic aspects of education as well. An analysis of the forms of dependency, its mechanisms, and its internal contradictions may prove to be the best and most effective contribution of the social sciences to a society living under dependent capitalism.

Some of the more relevant issues needing serious research in the field of education and dependency are:

a) The conditioning process of economic and technical aid for education and the way this aid implements the needs of the dominant society and further dependency;

¹⁰J. Nun, "Superpoblación relativa, ejército industrial de reserva y masa marginal," Revista Latinoamericana de Sociología, Vol. V, No. 2 (julio de 1969).

¹¹Glaucio A. D. Soares, "The New Industrialization and the Brazilian Political System," in Petras and Zeitlin, op. cit.

b) The transfer of scientific knowledge, particularly the uncritical adoption or the imposition of models developed in imperialist countries and whether these are mechanisms for augmenting dependency. If science is to contribute to development in dependent nations, its first step should be serious criticism of development models currently in use and their real effects in these societies.

c) A full-scale analysis and revision of textbooks at all levels to eliminate ideological influences hindering cultural and political autonomy.

The Colombian educational system as a source of general social mobility is a myth; in reality, as this thesis has attempted to document, the Colombian educational system is a mechanism of discrimination against the vast majority of the population and therefore serves to maintain the status quo.

Education as a key to development and moreover as a necessary and sufficient condition for development is also a flagrant myth. It is not possible to isolate the educational system from the rest of society, and then predict the many social benefits resulting from an increase in the quantum of education. To do so is to forget that the educational system has been and is being shaped and conditioned both by dependency and by the interests of the dominant class. Indeed, it seems clearer than ever that the educational system has been predominately used to foster underdevelopment.

Although the dependency approach to institutional analysis is only at its beginning, it seems very clear that dependency is at the root of the lack of autonomy in the most critical aspects of economic, political, and social life. Dependency is not only an external factor or obstacle, it is also an internal and self-perpetuating structure. This is the reason why development requires a change not only in terms of extranational interests (or their abolition) but also a radical change in the internal structures. Only by making these radical internal changes will Colombians finally be able to choose between autonomy or dependency, development or underdevelopment, and, therefore, education for all and in the national interest, or education for the dominant class and for the benefit of the extranational interests. Colombian independence at present is only a facade and a useful political myth.