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Changing Patterns of Human Settlement in
the Republic of Panama**

by

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Précis

Since the construction of the Panama Canal in 1914, the Republic of Panama has experienced uneven economic and regional development. The development trends have been largely a cause of: the increasing service function of Panama's economy; the concentration of economic activities in one geographic area surrounding the Panama Canal; and, significant rural-to-urban migration patterns.

This study illuminates current patterns of internal migration in the Republic of Panama during the last two decades, and changes in the spatial structure of Metropolitan Panama City (MPC) located within the Province of Panama. The first pattern is that internal migration to the Province of Panama in the last two decades has slowed extensively, where in the previous thirty years migration was much greater. The second development is that the out-migration flow from the Province of Panama to the rural provinces has increased. Finally, the principal destination of in-migrants to MPC has shifted from the district of San Miguelito to the district of Panama. The findings of this study show that the most recent migration patterns have contributed to uneven economic and regional development, and advises the Republic of Panama to consider a long-term approach to regional development and urban planning. This study also shows the need for a democratic urban reengineering process that includes increased public awareness and participation, and public access to accurate spatial data for data visualization, research, planning and policy making.

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Introduction

During the present century, particularly since the construction of the Panama Canal in 1914, uneven economic and regional development emerged in the Republic of Panama as a result of the increasing service function of Panama's economy and the concentration of its economic activities in one specific geographic area: the adjacent territory of the Panama Canal (Gorostiaga 1984; Jovane 1975; Meditz and Hanratty 1989). The progressive formation of an International Services Platform --with the creation of the Colon Free Zone in 1950 and the installation of an International Financial Center in 1970 in Panama City--supported and reinforced this tendency (Gorostiaga 1984). These developments, in terms of both the geographic location of economic activity and the consequent progressive concentration of population, were located on an axis across the isthmus between Colon at the Atlantic terminus of the Canal and Panama City on the Pacific coast (Meditz and Hanratty 1989, p. xxiii). This situation generated the rapid development of Panama City and its surrounding areas within the Province of Panama, creating what became the Metropolitan Area of Panama (Uribe 1989).

Studies on internal migration in Panama revealed that from 1950 to 1970 more than two-thirds of all migrants went to the Province of Panama, whose service economy contained the principal economic activities of the country (Gandasegui 1980). Studies also revealed that during that period the Districts of Panama and San Miguelito--which conform Metropolitan Panama City (MPC)--absorbed most of the immigration flows to the Province of Panama. Most studies of Panama's internal migration have explained this phenomenon as a result of the extreme poverty in rural areas, which forces people to go to the city looking for better living and economic conditions. However, previous results have shown that these migrants often locate in extremely poor urban areas, commonly called slums or squatter settlements (Fraizer 1976; Gandasegui 1980; Leis 1979). Therefore, these researchers have contended that the cause of Panama's strong

rural to urban migration is the existence of push factors in rural areas rather than the pull factors in the urban regions.

Theories of migration such as those of Ravenstein's (1976) Laws of Migration, Lee's (1966) theory of migration, Lewis-Fei-Ranis' (1982) model of development, Sjaastad's human investment theory of migration (Danesh 1987), Todaro's (1977) model of rural-urban migration, and Castells' (1977) theory of social production of urban space can be grouped into two main perspectives: the urban pull and the rural push perspectives (Danesh 1987, p.2). The main argument of the pull perspectives is that urban centers "pull" rural residents to the city as a result of their greater offering of job opportunities and social services. On the other hand, the push perspective emphasizes the poverty in the rural areas that "pushes" or forces rural residents out of their natural settlement. Such poverty reflects the lack of job opportunities and the deteriorating socioeconomic conditions that the rural areas experience (Danesh 1987). Since information on the characteristics of the migrants was not available, the integration of factors associated with the place of origin and of destination, in Lee's Theory of Migration, was used as the principal general schema in the present study.

The present study examines patterns of internal migration in the Republic of Panama during the last two decades and the changes taking place in MPC's spatial structure during that period. Current changing conditions of urban growth including availability of new land for development and new transportation networks in MPC are also examined and related to historic patterns of migration, uneven regional development, and the current national settlement system. The study also foresees these changing conditions as new opportunities for reengineering Panama's urban and regional development and its dysfunctional settlement system through a comprehensive, objective, and long-term approach on regional and urban planning and policy. By describing and documenting the extent and direction of internal migration in Panama and MPC's changing spatial structure, the present study seeks contribute with some of the information needed to accomplish such endeavor.

Administrative Divisions: Republic of Panama



Changes in Population Distribution, Population Density and Urbanization

In Table 1 it can be observed that during this century the Republic of Panama has experienced a progressive population imbalance, with a heavy concentration in the Province of Panama. This tendency has continued in the last two decades. According to the 1990 national census, the Republic of Panama's population was 2,329,329 people, while the Province of Panama had 1,072,127, (46 percent) of the total.

In addition, in 1990, 61 percent of the total population of the Province of Panama was concentrated in MPC. In the district of San Miguelito, for instance,--a slum community and then a district created in 1970 and considered to be the most important urban destination for most rural migrants during the 1960s and 1970s (Gandasegui 1980, Leis 1979)--the population density was 4,860.5 inhabitants per square kilometer in 1990, contrasting with the country's average population density of 30.8 inhabitants per square kilometer (see Table 2). Finally, the Province of Panama was not only the most populated, it also was the only urbanized province of the country, with 79.5 percent of its population being urban in 1990. The rest of the provinces remained mostly rural areas (see Table 3).

Table 1 Percent Population Distribution in the Republic of Panama by Province* 1911, 1950, 1970 and 1990

<u>Province</u>	<u>Year</u>			
	<u>1911</u>	<u>1950</u>	<u>1970</u>	<u>1990*</u>
Bocas del T	6.8	2.8	3.0	4.0
Cocle	10.4	9.1	8.3	7.4
Colon	9.5	11.2	9.4	8.7
Chiriqui	18.8	17.1	16.5	15.9
Darien	2.7	2.0	1.6	2.0
Herrera	6.8	6.2	5.1	4.0
Los Santos	8.9	7.6	5.1	3.3
Panama	18.4	30.8	40.4	46.0
Veraguas	17.7	13.2	10.6	8.7
Total %	100.0	100.0	100.0	100.0
Total Pop.	(336,742)	(805,285)	(1,428,082)	(2,329,329)

* Excludes civil and military people who reside in areas under military control of the United States Government
 Source: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda, Resultados Finales Basicos: Total del Pais, p.9

Table 2 Area, Population, and Population Density by Provinces and the Districts of San Miguelito and Panama, by Year

<u>Provinces and Selected Districts</u>	<u>Area Km2</u>	<u>Population</u>			<u>Density*</u>		
		<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>
Bocas del Toro	8,745.4	43,531	53,487	93,361	5.0	6.1	10.7
Cocle	4,927.3	118,003	140,903	173,190	23.9	28.6	35.1
Colon	7,247.1	145,932	162,454	202,338	20.1	22.4	27.9
Chiriqui	8,653.3	236,154	287,350	370,227	27.3	33.2	42.8
Darien	16,671.0	22,685	26,524	43,832	1.4	1.6	2.6
Herrera	2,340.7	72,549	81,963	93,681	31.0	35.0	40.0
Los Santos	3,805.5	72,380	70,261	76,947	19.0	18.5	20.2
Panama	11,887.4	609,197	809,100	1,072,127	51.2	68.1	90.2
Veraguas	11,239.3	151,849	173,245	203,626	13.5	15.4	18.1
-San Miguelito	50.0	68,400	156,611	243,025	1,368.0	3,132.2	4,860.5
-Panama	2,560.8	419,179	477,107	584,803	163.7	186.3	228.4

* Density Pop. x Km2
 Source: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990, Resultados Finales Basicos: Total del Pais, p.15-17

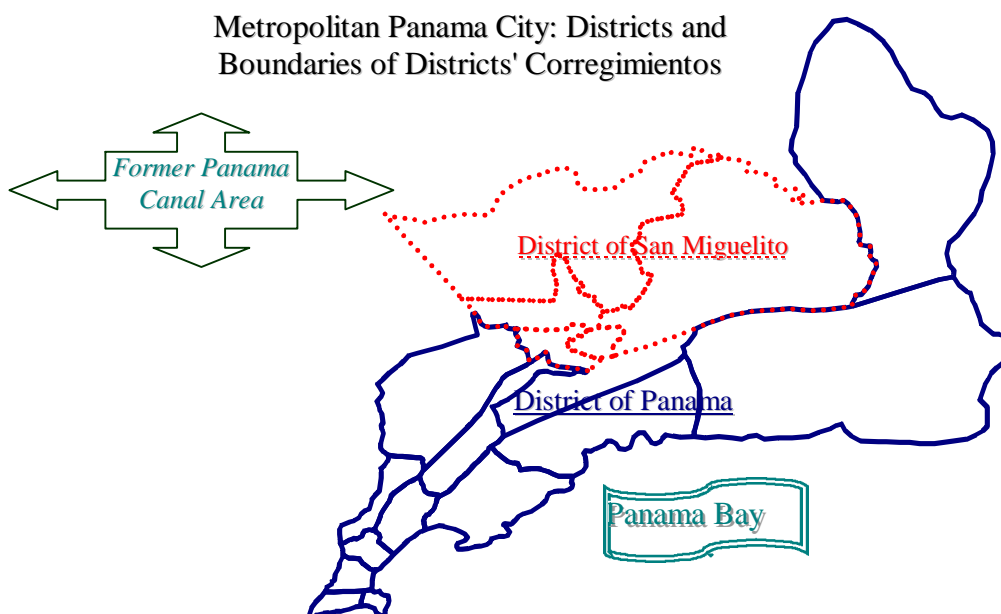


Table 3 Urban Population by Province in the Republic of Panama, 1980 and 1990 *

Province	1980		1990	
	Total Population	Percent Urban	Total Population	Percent Urban
Bocas	53,487	33.1	93,361	29.8
Cocle	140,903	25.4	173,190	25.8
Colon	162,454	44.6	202,338	48.9
Chiriqui	287,350	31.3	370,227	33.8
Darien	26,524	6.1	43,832	3.4
Herrera	81,963	39.4	93,681	43.7
Los Santos	70,261	14.2	76,947	20.7
Panama	809,100	76.2	1,072,127	79.5
Veraguas	173,245	19.0	203,626	21.2
Total	1,805,287	50.4	2,329,329	53.7

* Excludes civil and military people who reside in areas under military control of the United States Government.

Source: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990. Resultados Finales Ampliados, Vol. II, p.29.

Socioeconomic Conditions in the Republic of Panama

Data on socioeconomic conditions in the Republic of Panama are presented in Table 4. Except for its high rate of unemployment, socioeconomic conditions in the Province of Panama and its districts of Panama and San Miguelito were much better than in any other province of the Republic of Panama. Unemployment in all provinces increased from 1980 to 1990. The highest rates of unemployment were found in the Province of Panama and its districts of Panama and San Miguelito, the Province of Colon, and the Province of Darien.

With the exception of the provinces of Bocas del Toro and Colon, the rural provinces were far below the urban areas in median monthly income (MMI). Thus, while income levels are higher in the urban areas, so are levels of unemployment. The lowest MMI of any province was that reported by the Province of Veraguas. With the exception of Darien, whose MMI decreased from 1980 to 1990, all provinces experienced an increase in their MMI during that period.

Table 4. Socioeconomic Conditions in the Republic of Panama, by Provinces and the Districts of Panama and San Miguelito, 1980 and 1990

	<u>Provinces and Selected Districts*</u>										
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>
Median Income											
1980	159.5	105.3	211.9	143.3	117.3	113.4	104.3	227.6	74.9	200.8	230.0
1990	237.3	116.8	212.9	152.1	100.4	119.2	115.4	251.6	93.1	245.9	291.4
Unemployment											
1980	3.1	6.5	9.0	6.3	1.8	5.4	5.2	10.3	3.8	13.2	10.0
1990	15.4	11.3	12.1	9.9	3.5	8.3	6.7	13.6	7.5	15.6	13.2
Educational Attainment											
No Grade											
1980	38.4	9.9	15.0	19.5	38.0	18.3	18.0	5.1	28.7	4.2	3.6
1990	29.4	6.3	10.3	14.4	28.3	10.8	11.7	3.4	19.0	2.5	2.6
Primary											
1980	41.3	66.4	42.3	38.0	48.6	58.0	59.7	39.2	50.1	42.1	33.0
1990	39.0	61.1	35.0	44.0	53.1	51.9	56.9	29.5	48.6	27.8	24.3
Secondary											
1980	18.3	20.0	36.3	25.9	11.9	21.6	18.7	42.2	17.9	44.8	45.9
1990	18.1	17.4	32.4	22.2	14.5	19.1	23.2	44.6	24.3	48.5	46.3
Others											
1980	0.6	0.5	1.3	1.0	0.6	0.3	0.6	1.2	0.2	0.8	1.5
1990	4.0	2.4	3.8	2.6	2.9	3.4	2.2	6.2	2.5	7.5	6.2
Post-Secondary											
1980	1.4	3.0	5.0	4.9	0.9	3.7	3.0	12.2	3.1	8.0	16.0
1990	3.0	5.0	8.5	7.6	1.1	6.8	6.0	16.3	5.5	13.6	20.6
Ave. Yrs. School for 6 & over											
1980	3.2	4.7	6.1	4.7	2.8	4.6	4.6	6.9	3.8	7.8	9.0
1990	4.1	5.6	7.1	5.7	3.5	5.8	5.7	8.0	5.0	7.9	8.7
Housing Characteristic											
Percent without Water											
1980	39.4	32.8	20.9	40.3	68.7	25.8	19.4	6.6	47.8	0.7	2.5
1990	38.5	20.9	14.8	30.8	64.8	17.1	10.0	4.8	37.8	0.3	2.0
without Sewer											
1980	34.1	11.9	14.2	22.1	72.9	20.3	13.2	4.3	39.4	1.7	1.9
1990	33.6	8.4	13.3	17.7	66.1	12.0	9.6	3.7	32.0	1.9	1.9
without Elect											
1980	38.3	63.8	37.5	50.1	83.3	52.0	51.0	19.8	75.1	15.5	12.0
1990	42.0	50.4	26.8	38.0	81.6	32.5	30.2	11.3	59.8	3.2	6.1
with Dirt Floor											
1980	8.5	44.2	17.0	31.3	17.6	40.7	33.3	9.0	63.1	6.2	3.4
1990	9.0	33.8	15.8	26.8	26.6	29.9	23.3	7.1	52.8	3.1	3.7

* Provinces: 1 = Bocas del Toro, 2 = Cocolé, 3 = Colón, 4 = Chiriquí, 5 = Darién, 6 = Herrera, 7 = Los Santos, 8 = Panamá, 9 = Veraguas

Districts: 10 = San Miguelito, 11 = Panamá

Sources: Panamá, Directorate of Statistics and Census, Censos Nacionales: 1980, Vol. I p.12-43, 36, 326; Vol. IV p.175-185; and Vol. VII p. 93, 119, 138 and 143

-----, Censos Nacionales de Población y Vivienda: 1990, Resultados Finales Básicos: Total del País, p. 40-73, 108-141, 232

-----, Censos Nacionales de Población y Vivienda: 1990, Resultados Finales Básicos: Distrito de San Miguelito, p. 14, 28-29, 64, 128

-----, Censos Nacionales de Población y Vivienda: 1990, Resultados Finales Básicos: Distrito de Panamá, p. 23, 56-57, 176, 378

-----, Censos Nacionales de Población y Vivienda: 1990, Vol. IV p. 15-16

-----, Censos Nacionales: 1980, Vol. III p. 54-73

The Province of Panama and its districts of Panama and San Miguelito had by far the highest levels of educational attainment and better housing characteristics. Education for most inhabitants of rural areas ends at the primary grades. In contrast, in the district of Panama almost half the population age 15 and older had completed secondary education in 1990.

The basic characteristics of occupied housing in 1990 revealed that conditions in the districts of Panama and San Miguelito were better in all instances than they were in the rural provinces, and also better than those within the Province of Panama as a whole. Although the presence of electricity, water, sewer, and non-dirt floors in houses had increased in most of the provinces, a large number of houses were still without these facilities.

More than half of the total houses in the rural provinces of Veraguas, Cocolé, and Darién had no electricity in 1990. More than half of the houses in the Province of Darién did not have water in 1990. Bocas del Toro, Veraguas and Chiriquí still had high percentages of houses without water in 1990. Approximately three fourths of the houses in Darién and one out of three houses in Bocas del Toro and Veraguas did not have sewer systems in 1990. More than half of the houses in the Provinces of Veraguas and one out of three houses in the Provinces of Cocolé had dirt floors in 1990.

Principal Migration flows 1965-1990

Three new developments regarding migration flows in Panama are reported in this study. The Province of Panama continues to be the principal area of attraction for most rural to urban migrants in Panama. However, a major difference from the preceding thirty year period is that the extent of internal migration slowed in the last two decades. In addition, the out-migration flow from the Province of Panama to the rural provinces that previously had the highest out-migration to Panama is indicative of more extensive return migration to these areas than has occurred in the past. This phenomenon is a new development and has not been reported in the literature on internal migration for earlier periods in Panama. Finally, one change from previous decades, in which the principal destination of in-migrants to the Province of Panama was the

district of San Miguelito, was that the district of Panama was by far the most important recipient of rural migrants in the more recent period 1985-90. This pattern is a new development in the direction of the rural to urban migration in Panama once the rural migrant has reached the Province of Panama.

Extent of Internal Migration

Table 5 shows that the Province of Panama continues to be the principal area of attraction for most rural to urban migrants in Panama. However, a major difference from the preceding thirty year period is that the extent of internal migration slowed in the last two decades (See in table 5 net migration for Panama). Table 6 displays the in- and out-migration for each province for the 1965-70 and 1985-90 periods and Table 7 shows the rates of in-migration and out-migration for the same period.

Table 5. Net Migration in the Republic of Panama, 1965-1970 to 1985-90

Province	Net migration			Total 1970-1990
	1965-1970	1975-1980	1985-1990	
Bocas del Toro	2,759	-1,247	320	1,832
Cocle	-5,790	-4,278	-2,836	-12,904
Colon	-800	-2,838	-2,151	-5,789
Chiriqui	-10,834	-3,373	-3,557	-17,764
Darien	-3,215	-209	66	-3,358
Herrera	-3,760	-2,420	-1,691	-7,871
Los Santos	-6,495	-4,661	-1,192	-12,348
Panama	37,848	24,979	17,478	80,305
Veraguas	-9,713	-5,953	-6,437	-22,103

* Based on the difference between in-migration and out-migration of each province considering the place of residence 5 years earlier and the place of permanent residence at the date of the census.

Source: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990. Resultados Finales Ampliados, Vol. V, p. 6.

Comparing the migration flow of the 1965-1970 period with flow of the 1985-1990 period, it can be seen in table 6 that the province with the highest in-migration in both periods was the Province of Panama, but table 7 shows that the rate of in-migration dropped from 85.6 per 1,000 in 1965-70 to 40.9 per 1,000 in 1985-90. In the most recent 1985-1990 period the Province of Panama is also the province with the highest out-migration. There has been an

absolute increase in out-migration from 14,315 in 1965-70 to 26,334 in 1985-90 (See table 6).

However, the rate of out-migration in 1985-90 is similar to that of 1965-70 with 24.6 per 1,000

compared to 23.5 in the earlier period (See table 7).

Table 6. Net Migration, 1965-70 and 1985-90, by Province in the Republic of Panama*

Provinces	1965-1970			1985-1990		
	INM	OUTM	NETM	INM	OUTM	NETM
Bocas d. T.	5,499	2,740	2,759	3,684	3,364	320
Cocle	4,921	10,711	-5,790	7,578	10,414	-2,836
Colon	6,894	7,694	-800	6,357	8,508	-2,151
Chiriqui	4,736	15,570	-10,834	9,156	12,713	-3,557
Darien	1,209	4,424	-3,215	3,842	3,776	66
Herrera	3,136	6,896	-3,760	4,069	5,760	-1,691
Los Santos	2,709	9,204	-6,495	3,766	4,958	-1,192
Panama	52,163	14,315	37,848	43,812	26,334	17,478
Veraguas	4,494	14,207	-9,713	6,265	12,702	-6,437

* INM = in-migration OUTM = out-migration NETM = net migration

Sources: a) Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990. Resultados Finales Ampliados, Vol. V, p.8.

b) Panama, Gandasegui, M. 1980. Acumulacion y Migraciones Internas en Panama. CELA. p. 87

Table 7. Rates* of In-migration and Out-migration, 1965-70 and 1985-90, by Province in the Republic of Panama

Province	1965-70			1985-90		
	In	Out	Net	In	Out	Net
Bocas del T	126.3	62.9	+63.4	39.4	36.0	3.4
Cocle	41.7	90.8	-49.1	43.7	60.1	-16.4
Colon	47.2	52.7	-5.5	33.3	43.9	-10.6
Chiriqui	20.0	65.9	-45.9	24.7	34.3	-9.6
Darien	53.3	195.0	-141.7	87.6	86.1	1.5
Herrera	43.2	95.0	-51.8	43.4	61.5	-18.1
Los Santos	37.4	127.2	-89.8	48.9	64.4	-15.5
Panama	85.6	23.5	62.1	40.9	24.6	16.3
Veraguas	29.6	93.6	-64.0	30.8	62.4	-31.6

* Rate per 1,000 - Calculated with the Census year population as the denominator

Sources: a) Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990. Resultados Finales Ampliados, Vol. V. p.8.

b) Panama, Gandasegui, M. 1980. Acumulacion y Migraciones Internas en Panama. CELA. p.87.

Direction of Migration

In Table 8 and Figure 1 it can be seen that the areas of destination of the out-migrants from the Province of Panama were those provinces that formerly contributed large numbers of in-migrants to the Province of Panama. It can be seen in Table 8 that from 1985 to 1990 the four rural provinces with the highest out-migration, with the destination the Province of Panama, were in descending order: Veraguas (9,470 people), Chiriqui (8,674 people), Cocle (8,308 people), and

Colon (6,725 people). These are also the rural provinces that had the highest in-migration of migrants from the Province of Panama. Chiriqui had the highest number of in-migrants from the Province of Panama with 5,648 in-migrants. Chiriqui was followed by the provinces of Cocle, Colon, and Veraguas, with an in-migration from the Province of Panama of 5,334, 4,211 and 3,947 in-migrants, respectively.

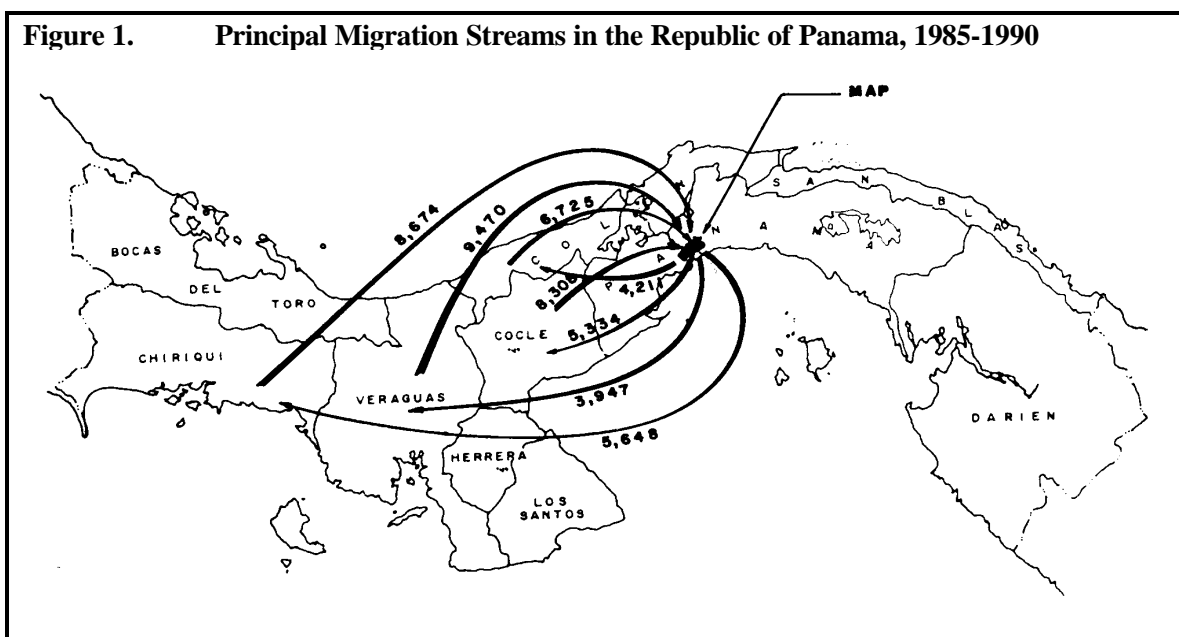


Table 8. Internal Migration in the Republic of Panama, by Province, 1985-90

Province of Residence in May 1990	In-Migration Total	Province of Residence in May 1985								
		1	2	3	4	5	6	7	8	9
1. Bocas del T	3,684		31	308	2,132	16	89	35	873	200
2. Cocle	7,578	63		455	344	50	377	214	5,334	741
3. Colon*	6,357	288	754		360	96	115	164	4,211	369
4. Chiriqui	9,156	1,673	268	338		174	223	126	5,648	706
5. Darien	3,842	12	74	251	234		543	239	1,991	498
6. Herrera	4,069	43	312	91	235	73		793	2,023	499
7. Los Santos	3,766	28	179	114	134	64	721		2,307	219
8. Panama	43,812	965	8,308	6,725	8,674	3,212	3,246	3,212		9,470
9. Veraguas	6,265	292	488	226	600	91	446	175	3,947	
Total	88,906	3,364	10,414	8,508	12,713	3,776	5,760	4,958	26,334	12,702

Source: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990, Resultados Finales Ampliados, Vol. V p. 56-77.

Table 9 details the out-migration to the province of Panama and also to the district of Panama and the district of San Miguelito within the province. It can be seen in Table 9 that 61.7 percent of all migrants who went to the Province of Panama had as their destination the district of Panama. In contrast, only 21.8 percent went to the District of San Miguelito. The remainder of in-migrants to the Province of Panama (16.5 percent) had as their destinations the other districts that comprise that province.

Table 9. Out-migration from Provinces to the Districts of San Miguelito and Panama, 1985-90.

Province of Out-migration	Out-migration to Province of Panama	Percentage of Out-migration to San Miguelito in Prov. Pma. (1)	Percentage of Out-migration to District of Pma. in Prov. of Pma(2)
Bocas del Toro	965	22.1	61.3
Cocle	8,308	21.8	64.3
Colon	6,725	18.9	63.7
Chiriqui	8,674	19.7	67.2
Darien	3,212	33.5	47.4
Herrera	3,246	16.6	58.5
Los Santos	3,212	17.5	51.1
Veraguas	9,470	25.6	60.0
Total	43,812	21.8	61.7

(1) Percentage of out-migration to the Province of Panama with destiny the District of San Miguelito.

(2) Percentage of out-migration to the province of Panama with destiny the District of Panama.

Source: Panama, Directorate of Statistics and Census, Censos 1990, Unpublished Reports, Cuadro 14A. Migrantes Interdistritales, por Provincia y Distrito de Residencia en Mayo de 1985.

Population Dynamics and Changes in MPC's Spatial Structure

The Province of Panama has a geographic total size of approximately 11,887.4 square kilometers, while MPC represents only 156.5 square kilometers. In contrast, the total population of the Province of Panama, according to the 1990 National Census, is 1,072,127 inhabitants while the population of MPC is 656,530. Thus, 61 percent of the inhabitants of the Province of Panama (the only urban and most populated province of the country) reside in MPC. In some areas of MPC, the population density reaches 20,564 inhabitants per square kilometer. This contrasts sharply with the province average population density of 90.2 inhabitants per square kilometer.

MPC's growth has been mainly explained by the existence of a strong rural to urban migration process. The district of San Miguelito, a slum community and then a district created in 1970 as part of MPC and considered to be the most important urban destination for most rural migrants during the 1960s and 1970s (Gandasegui 1980, Leis 1979) houses the corregimientos of Amelia D. De Icaza, Belisario Porras, Jose D. Espinar, Mateo Iturralde, and Victoriano Lorenzo. These corregimientos located on the northern periphery of MPC and integrated to MPC's urban structure constitute new developments of the last three decades and constitute today's some of the most populated corregimientos of Panama.

Figures 2 and 3 contain information on the changes in the population distribution and population density in MPC during the most recent decades. In Figure 2 it can be observed that from 1970 to 1990 a shift in the distribution of population took place from the center to the periphery of MPC. While all corregimientos of the center and most of its adjacent experienced a decrease in their share of population, most corregimientos of the periphery experienced increases.

In effect, while Calidonia located near the center of the city was the most populated corregimiento housing 10 percent of the MPC's total population in 1970, by 1990 its share had decreased to 3.4 percent. On the other hand, while Belisario Porras located at the periphery of the city represented only 3.5 of the total population in 1970, by 1990, its share had grown to 18.5 percent. Belisario Porras was already the most populated corregimiento of MPC in 1980. Juan Diaz also located on the periphery experienced a similar pattern. In 1990 Juan Diaz was the second largest corregimiento of the MPC. In short, data in Figure 2 shows a fairly steady decrease in the proportion of the population that resides in or near the center of MPC and a steady increase in the proportion of the population that occupy the corregimientos of the periphery.

Figure 2. Percent Population Distribution in Panama City by Corregimiento, 1970, 1980, and 1990

Corregimiento	Year		
	1970	1980	1990
San Felipe	3.2	2.1	1.5
El Chorrillo	6.4	4.5	2.6
Santa Ana	7.5	4.9	4.1
Calidonia	10.5	4.9	3.4
Curundu	3.1	3.2	2.8
Betania	9.1	8.2	7.2
Bella Vista	6.3	4.9	3.7
Pueblo Nuevo	4.7	3.9	3.3
San Francisco	8.7	6.4	5.2
Parque Lefevre	7.6	6.3	5.9
Rio Abajo	6.3	5.7	4.9
Juan Diaz	6.0	9.7	11.4
Pedregal	3.6	6.1	6.3
Amelia Denis De Icaza	4.2	4.5	5.3
Belisario Porras	3.5	14.9	18.5
Jose D. Epinar	2.6	4.4	9.1
Mateo Iturralde	2.9	2.3	2.1
Victoriano Lorenzo	3.6	3.2	2.7
Total %	100.0	100.0	100.0
Total Population	(406,066)	(534,970)	(645,380)

Sources: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990, Distrito de Panama.
 Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990, Distrito de San Miguelito.

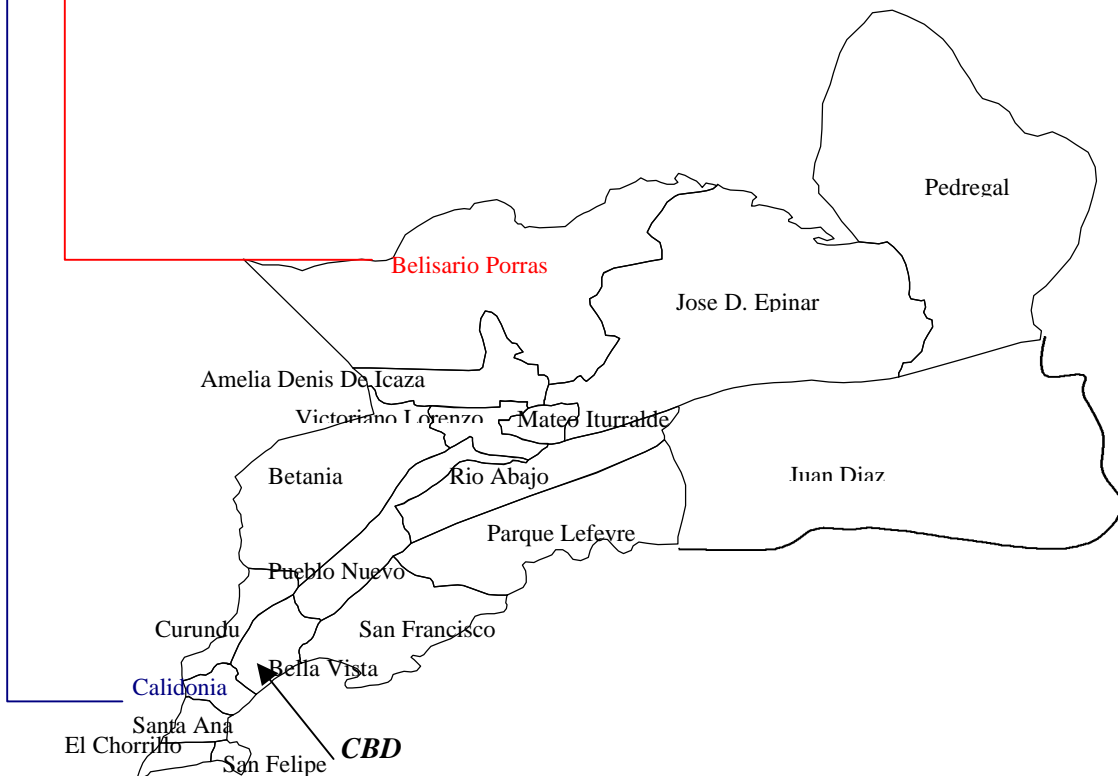
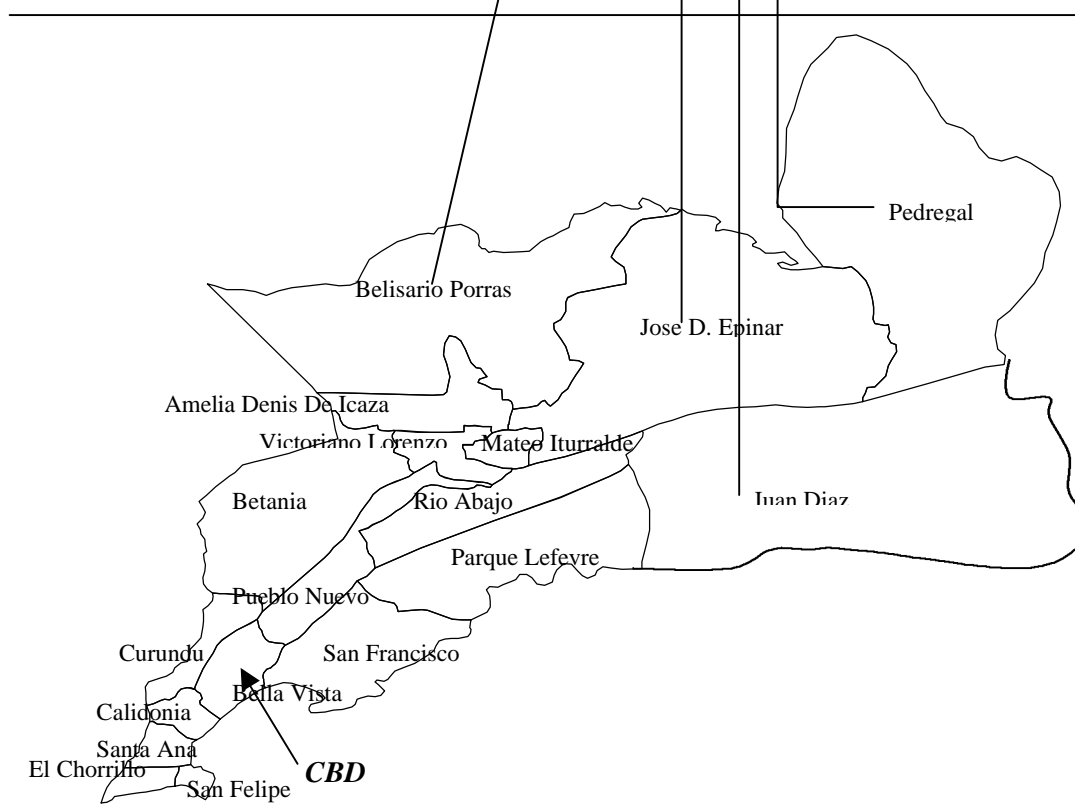


Figure 3. Area, Population, and Population Density by Corregimiento, 1970, 1980, and 1990

Corregim	Area Km ²	Population				Density*			Change 1970-90
		1970	1980	1990	Pop.Change 1970-1990	1970	1980	1990	
San Felipe	0.5	12,997	11,049	9,698	-3,299	25,994	22,098	19,396	-6,598
El Chorrillo	0.4	26,120	24,109	16,873	-9,247	65,300	60,273	42,183	-23,118
Santa Ana	1.3	30,526	26,453	26,347	-4,179	23,482	20,348	20,267	-3,215
Exp-Calidonia	1.6	42,800	26,358	22,234	-20,566	26,750	16,474	13,896	-12,854
Curundu	1.1	12,730	16,891	17,866	5,136	11,573	15,355	16,242	4,669
Betania	8.6	37,117	43,819	46,447	9,330	4,316	5,095	5,401	1,085
Bella Vista	5.1	25,692	26,057	23,873	-1,819	5,037	5,109	4,681	-357
Pueblo Nuevo	5.8	19,068	20,791	21,093	2,025	3,288	3,585	3,637	349
San Francisco	5.6	35,496	34,405	33,804	-1,692	6,339	6,144	6,036	-302
Parque Lefevre	6.2	30,863	33,870	38,067	7,204	4,978	5,463	6,140	1,162
Rio Abajo	6.3	25,417	30,409	31,922	6,505	4,034	4,827	5,067	1,033
Juan Diaz	35.6	24,527	51,684	73,485	48,958	689	1,452	2,064	1,375
Pedregal	28.4	14,459	32,651	40,821	23,362	509	1,150	1,437	928
Amelia D.D.I	3.8	17,227	24,068	33,890	16,663	4,533	6,334	8,918	4,385
Belisar Porras	20.0	14,204	79,890	119,271	105,067	710	3,995	5,964	5,253
Jose D. Espinar	23.3	10,508	23,342	58,722	48,214	451	1,002	2,520	2,069
Mateo Iturralde	1.1	11,735	12,226	13,660	1,925	10,668	11,115	12,418	1,750
Victoriano Lorenzo	1.8	14,580	16,898	17,307	2,727	8,100	9,388	9,615	1,515

*Density Pop. x Km²

Sources: Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990, Distrito de Panama.
Panama, Directorate of Statistics and Census, Censos Nacionales de Poblacion y Vivienda: 1990, Distrito de San Miguelito.



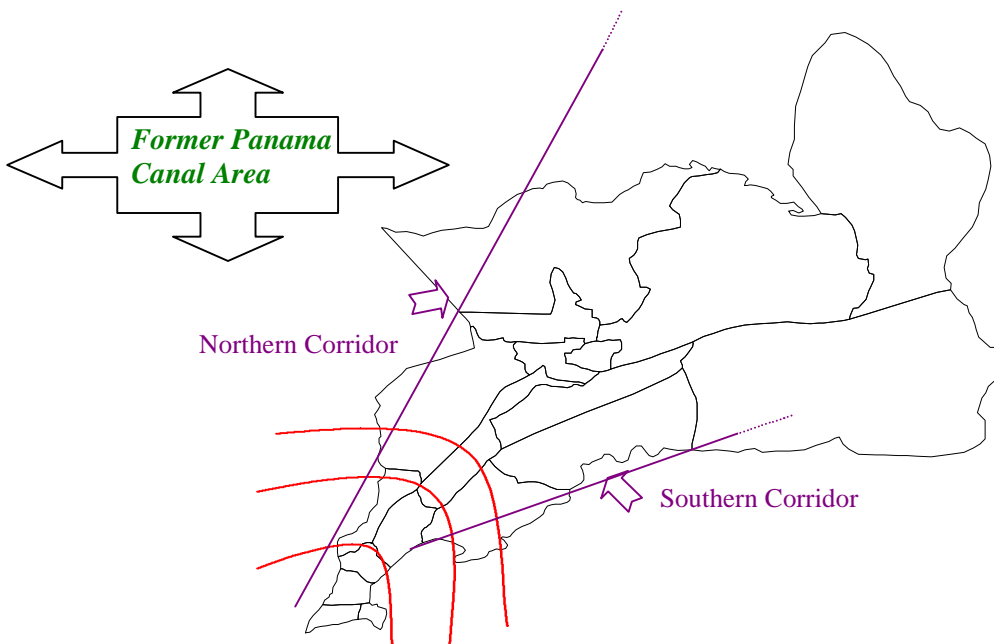
It can be seen from the data in Figure 3 that from 1970 to 1990 most corregimientos of the center and those adjacent to it experienced a steady decrease in population density. The corregimientos of the periphery, in contrast, experienced increases. For instance, Jose D. Espinar which population density was of 451 inhabitants per square kilometer in 1970 increased its density to 5,964 persons per square kilometer in 1990. In addition, this corregimiento experienced by far the largest increase in population from 14,204 in 1970 to 119,271 in 1990.

The shift of population that took place during the last two decades--from the center to the periphery of MPC--reveals distinctive spatial patterns of change in population distribution across MPC's corregimientos. These spatial patterns, however, developed under spatial conditions of land availability and existent transportation networks that influenced MPC's spatial patterns of growth. Current developments regarding MPC's access to previously-denied land (the former Panama Canal Area) and the construction of new transportation networks--along the adjacent territory of the Panama Canal--open up new areas for development which further intensify changes in MPC's rapidly changing spatial structure.

As figure 4 shows MPC developed with two frontiers. On one side the Panama Bay and on the other side the former Panama Canal Area. Through a progressive process that will consummate by the end of the year 1999, MPC's west frontier will disappear advancing new paths of growth. In addition, the construction of two highways (northern and southern corridors) is underway along both frontiers which further intensify changing conditions in MPC.

Massive foreign investment to turn the 94,000 hectares along the Panama Canal into industrial complexes, maritime services, communication infrastructures, tourism facilities, and residential development have been already reported by Panamanian authorities. Existing buildings and facilities with estimated value of \$4 billion are planned to be sold to private interests in the near future. In addition, Panamanian authorities and their supporting financial organizations are coordinating efforts which results are expected to intensify and reinforce the role of MPC and the canal area as the center of the country's development.

Figure 4



Conclusion

During this century internal migration in the Republic of Panama has created a population imbalance, with a heavy concentration in the Province of Panama. This redistribution of population has continued in the last two decades. Except for its high rate of unemployment, socioeconomic conditions in the Province of Panama and its districts of Panama and San Miguelito were much better than in any other province of the Republic of Panama.

The Province of Panama continues to be the principal area of attraction for most rural to urban migrants in Panama. However, a major difference from the preceding thirty year period is that the extent of internal migration slowed in the last two decades. The out-migration flow from the Province of Panama to the rural provinces that previously had the highest out-migration to Panama is indicative of more extensive return migration to these areas than has occurred in the past. This phenomenon is a new development and has not been reported in the literature on internal migration for earlier periods in Panama.

The adverse living and economic conditions of rural areas continued to force people to migrate. In addition, the improvement of housing characteristics, educational attainment, and monthly median income in the former slum community of San Miguelito and in the District of Panama has attracted rural migrants from areas which had far poorer living and economic conditions. However, this attractiveness may not last because of the high levels of unemployment and overcrowding and because of the high cost of transportation, food, and utilities that characterize the cost of life in the city. In addition, the monthly median income in San Miguelito, for example, remains within levels of poverty and most of its residents continued at the bottom of the urban, socioeconomic hierarchy.

One change from previous decades, in which the principal destination of in-migrants to the Province of Panama was the district of San Miguelito, was that the district of Panama was by far the most important recipient of rural migrants in the more recent period 1985-90. This pattern is a new development in the direction of the rural to urban migration in Panama once the rural migrant has reached the Province of Panama.

The unavailability of information on the characteristics of the migrants in Panama such as occupation, income, education, housing characteristics, marital status, and household size appears to be a great obstacle in the study of this process. The process of migration, in fact, will require a more extensive investigation including the characteristics of the migrants mentioned above.

Changing conditions of urban growth including availability of new land for development and new transportation networks in MPC have created significant transformation in MPC's spatial structure and imposed new conditions on urban dwellers and on the experience of migration for rural-to-urban migrants in Panama. While MPC continues to be the principal destination of most rural to urban migrants, changes have occurred in the destination of migrants to MPC creating new patterns of urban settlement. In addition, current developments regarding MPC's access to previously-denied land (the former Panama Canal Area) and the construction of new transportation networks--along the adjacent territory of the Panama Canal--open up new areas of

development which further intensify changes in the MPC's rapidly changing spatial structure. While these developments advance a reinforcement of historic patterns of migration, uneven regional development, and therefore the current dysfunctional national settlement system, they also constitute new opportunities for reengineering Panama's urban and regional development and its settlement system toward a more equitable distribution of resources, space, and opportunities.

Due to the complexities and immediacy of these developments, the design and adoption of a comprehensive, objective, and long-term approach on regional and urban development in Panama is strongly advised. This creates new challenges for urban and regional planning and policy and the need for a democratic urban and regional reengineering process through increasing public awareness and participation. The production of and public access to more accurate spatial data for data visualization, research, planning, and policy making are critical in order to accomplish such endeavors.

References

- Castells, Manuel. 1977. The Urban Question: A Marxist Approach. Cambridge: The MIT Press.
- Danesh, Abol H. 1987. Rural Exodus and Squatter Settlements in the Third World: Case of Iran. New York: University Press of America.
- De Jong, Gordon and Robert Gardner, eds. 1981. Migration Decision Making: Multidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries. New York: Pergamon.
- Directorate of Statistics and Census. 1991. Panamá en Cifras: Años 1980-1990. Panamá: Contraloría General de la República.
- _____. 1991. Censos Nacionales de Población y Vivienda: 1990; Resultados Finales Básicos, Total del País. Panamá: Contraloría General de la República.
- _____. 1991. Censos Nacionales de Población y Vivienda: Resultados Finales Ampliados, Vol. II, IV, and V. Panamá: Contraloría General de la República.
- _____. 1991. Censos Nacionales de Población y Vivienda: 1990; Resultados Finales Ampliados; Distrito de San Miguelito. Panamá: Contraloría General de la República.
- _____. 1980. Censos Nacionales: 1980; Vol. IV and VII. Panamá: Contraloría General de la República.
- Fraizer, Gloria. 1976. Moving to Stand Still: Third World Poverty and Rural-to-Urban Migration: A Panamanian Case History. Pittsburgh: University of Pittsburgh.
- Gandasegui, Marco A. 1980. Acumulación y Migraciones Internas en Panamá. Panamá: CELA.
- Gersovitz, Mark, Carlos F. Diaz, Gustav Ranis, and Mark R. Rosenzweig, eds. 1982. The Theory and Experience of Economic Development. London: George Allen & UNWIN.
- Gorostiaga, Xavier. 1984. La Zona del Canal y el Sub-desarrollo Panameño. Panamá: Ediciones Tareas.
- Jované, Juan. 1975. "Canal: Dependencia y Subdesarrollo." Tareas 30 Panamá.
- Lee, Everett S. 1966. "A Theory of Migration." Demography 3(1):47-57.
- Leis, Raul A. 1979. La Ciudad y los Pobres: Las Clases Populares en la Ciudad Transitista. Panamá: CEASPA.
- Meditz, Sandra and Dennis Hanratty. 1989. Panama: A Country Study. Washington D.C.: Federal Research Division.
- Ravenstein, Ernest G. 1976 [1899]. The Laws of Migration. New York: Arno.
- Shryock, Henry S, Jacob S. Siegel, and Associates. 1976. The Methods and Materials of Demography. New York: Academic Press.
- Todaro, Michael. 1977. Economic Development in the Third World. New York: Longman.
- Uribe, Alvaro. 1989. La Ciudad Fragmentada. Panamá: CELA.

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