1985

Effects of socialism on Cuban fertility

Lisa W. Shepperd

The University of Montana

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THE EFFECTS OF SOCIALISM ON CUBAN FERTILITY

By

Lisa W. Shepperd

B.A., Florida State University, 1979

Presented in partial fulfillment of the requirements for the degree of

Master of Science

UNIVERSITY OF MONTANA

1985

Approved by:

[Signatures]

Date

June 3, 1985
Although the Cuban population growth rate began its decline in the early part of the century, the speed and degree of decline intensified dramatically after the establishment of the Castro government in 1959. After an initial baby boom following the many years of conflict, the rate of natural increase dropped from a high of 28.1 in 1964 to a low of 8.0 in 1981 — a decrease of over 70 percent in just seventeen years. This decline in the birth rate was not due to any overt demographic program or policy instituted by the regime. Rather, this study shows that the causes of the decline are found in the various social and economic changes brought about by the socialist government.

Analysis of recent census data (1981) and other demographic materials supplied background information on the population trends in Cuba before and after the revolution. An investigation of the literature reveals that improvements in women's status and their incorporation into the work force have been major concerns of the Castro government. Improvements in health (especially among children) and education appear to be the most significant changes affecting women's lives. The literature on fertility behavior confirms that such changes tend to offer women opportunities at gaining status and financial security other than through having children.

Therefore, it appears that the basic social and economic reorganization brought about by the establishment of the socialist government led to the rapid and extensive decline in Cuban fertility. This decline, although in evidence prior to the revolution in 1959, could not have occurred to such a degree and with such speed without the improvements in women's status and infant mortality brought about by the socialist regime. Although the baby boom cohort is now entering their reproductive years (and thus will push the crude birth rate upwards), fertility in Cuba should continue to decline as long as the government remains economically and ideologically committed to its public health and education programs.
ACKNOWLEDGEMENTS

I would like to recognize the following people for their help in the completion of this thesis. I thank Bob Mazur and Medea Benjamin, who supplied my initial inspiration and training. Also, my committee (Dick Barrett, Ron Erickson and Chris Field) deserve special attention for their moral, intellectual and financial support along the way. And I thank Dwayne Ward for graciously agreeing to review the draft on very short notice. Finally, I thank Danny Parker for his continued support in every way, not the least of which includes technical assistance and the generous use of the Apple IIe.
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CHAPTER ONE

INTRODUCTION

THE PROBLEM

Since the overthrow of the Batista regime in 1959, Cuba has experienced a socialist transformation of its political, social and economic structures. A rapid and extensive decrease in fertility has accompanied these changes. This decline is particularly unique in that it has occurred in a underdeveloped agrarian society and without the aid of an overt anti-natalist policy. There is little information on how socialism affects fertility. However, it appears that the social and economic changes instituted by the Castro government as part of the socialist transition have inadvertently lead to an acceleration in the fertility decline. An understanding of the demographic mechanisms which facilitated such an acceleration are important for other countries contemplating a similar political change.

OBJECTIVES

This paper investigates the manner in which the socialist transformation of Cuba has enhanced the decline in fertility. I propose that changes in socio-economic factors known to play an important role in determining birth rates have been instrumental in bringing about this demographic response.

This thesis is organized as a series of sections, each dealing with specific topics pertinent to the
The topics are presented in the following manner: first, the fertility decline is placed in its historical, geographical, and economic framework through a discussion of the rural basis of the Cuban economy and society. Secondly, the connection between socialist policies and population growth is reviewed with comparisons to other socialist countries. A specific review of recent demographic trends in Cuba follows, including fertility, mortality, migration, population structure and nuptiality. The paper concludes with the description and analysis of the socio-economic factors associated with fertility decline in developing countries and how recent changes in these areas have contributed to the rapid decline in Cuban fertility (i.e. health and birth control, education, employment, housing, social security, and religion). Throughout the paper special emphasis is placed upon the role of rural women and their fertility behavior since the change in governments in 1959.

METHODOLOGY

A comprehensive literature search supplies the demographic, social and economic aspects of Cuban life before and after the revolution. This analysis of Cuban fertility relies on secondary sources and various Cuban statistical volumes. In addition to demographic materials, data have been incorporated from other research areas
encompassing the economic, social and historical aspects of modern Cuban life which are pertinent to the study of socio-economic determinants of fertility behavior. Changes in the status of women are assessed through demographic, economic and feminist literature, from both the professional community and popular publications. A broad review of the social and economic changes since the revolution is necessary before any assessment of the impact these socialist policies on women and their fertility can take place. Statistical analysis is performed where pertinent.
CHAPTER TWO
RURAL STRUCTURE

INTRODUCTION

Cuba is not small. Its principal island, well over 700 miles in length with an average width of 60 miles, accounts for almost half of the land mass of all the islands in the Caribbean. In addition to the main island, the Cuban archipelago includes the Isla de la Juventud on the southwest coast and some 1,600 coastal cays and islets. Its total area of 46,300 square miles is about equal in size to Pennsylvania, or a little larger than Denmark, Belgium and the Netherlands combined [Benjamin 1984:8].

In 1976, a new political and administrative division of national territory was established to facilitate regional economic planning. In place of the six provinces that had existed since the nineteenth century, 14 were created, with Isla de Pino (now named Isla de la Juventud) as a special municipality outside the new system. Within these provinces, a total of 169 municipalities was created. Figure 2.1 illustrates Cuba with both the present and former political divisions.

The topography of Cuba resembles that of Mexico more than its northern neighbor, Florida. Although much of the principal island is either flat or gently rolling, there are several upland and mountain areas that increase in height from west to east. The tallest and most extensive range, the Sierra Maestra, occupies much of eastern zone.
FIGURE 2.1 THE REPUBLIC OF CUBA, 1985

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The province of Isla de la Juventud was created in 1976.
This region lends itself to the cultivation of such plants as coffee trees that require tropical sun yet cool temperatures. The west-central region is largely flat and suitable for sugarcane production. Although Oriente has the largest area under cultivation, the best yields per acre are obtained in Las Villas, La Habana, and Pinar del Rio provinces where the soils are better and more favorable rainfall conditions prevail [Black 1976:15, 394].

With close to 10 million people Cuba is less densely populated than the other major West Indian islands. The traditional pattern of settlement was one in which a large proportion of the urban population was concentrated in the capital city and most of the remainder in the numerous ports or in interior cities and towns in sugar producing zones along the route of the principal highway, which threaded the island from east to west. Sugar industry workers resided around the numerous sugar mills in towns and villages that had both urban and rural characteristics. The bulk of the rural inhabitants not engaged in sugar production lived widely dispersed on isolated farms [Black 1976:10]. In 1959, 53 percent of Cuba's population lived in urban areas; by 1981 this figure had grown to just under 70 percent [CEE 1982].
CONDITIONS BEFORE 1959

Agriculture

The Cuban society and economy are and always have been dominated by agriculture. MacEwan explains the depth of this relationship well:

Agriculture has played a central role in Cuba's economic history, and it has continued to play an important role throughout the revolutionary process. But Cuban agriculture is not something separate from the rest of the nation's economic and social life. The policies and problems of agriculture are policies and problems of the whole economy, and vice versa. By concentrating attention on agriculture, it is thus possible to learn a good deal about the entire development process in Cuba. [1981:ix]

Human reproduction varies greatly among different geographic and socio-economic settings: reasons for having children in New York are probably quite different from those factors influencing the fertility of a couple in Shanghai. Thus, an understanding of the agrarian basis of the Cuban economy and society is an important step in deciphering the determinants of fertility behavior.

Ever since Christopher Columbus discovered Cuba, the economy of this country has revolved around agricultural production. The backbone of modern Cuban agriculture is sugarcane. Before 1959, Cuba agriculture directly accounted for only a quarter of national income, while employing over 40 percent of the work force. The largest industries were those directly tied to agriculture (i.e. processing and
marketing). In 1959 sugar alone accounted for five percent of the total domestic product (or a quarter of all manufacturing activity) [Seers 1964:3].

Three categories of Cuban farms prevailed in the first half of this century: large sugarcane plantations and cattle ranches; middle-sized tobacco, cane and coffee farms; and small family farms. Among these, sprawling ranches and sugarcane estates dominated the Cuban countryside. In the early 1950's cane fields covered 60-70 percent of cultivated lands [MacEwan 1981:6]. In 1946, 114 farms and ranches, or fewer than 0.1 percent of the total number, occupied 20 percent of the land; only .5 percent of all farms controlled over one third of the cultivable territory [Seers 1964:74]. These large plantations were usually under the supervision of a foreman, as owners rarely lived at their plantation. About 90 percent of the sugarcane land was farmed by "colonos" (tenant farmers), who depended upon the land owner's mill to grind their cane once it had been harvested. Many of the "colonos" relied on hired labor (often landless peasants or workers, and their families) to tend and harvest their cane fields. Indeed, farm owners made up only about 30 percent of farm operators in the immediate prerevolutionary period. The remainder of the farms were run by people with no direct ownership interest: managers, 6 percent; renters, 29 percent; subrenters, 4 percent; sharecroppers, 21 percent;
squatters, 9 percent; and other operators, 1 percent [Seers 1964:79].

At the other end of the spectrum lay the small family farm ("small" ranges from less than one to 62 acres). A Cuban family farm consisted of a tract of land devoted to the production of crops and livestock on which most, if not all, the labor was performed by the operator and his family. Hand labor, using the shovel, pick, hoe, axe and crowbar, was the common condition. The most common tool was the machete, which hung from the worker's belt and was used for a multitude of purposes such as harvesting sugarcane, clearing the land of brush, and weeding. Women scarcely ever worked in the fields, but since the families tended to be rather large there were ordinarily two or more male workers per farm [Nelson 1972:66].

According to the 1946 census of agriculture (the last taken before the revolution), farms and ranches under twenty-five acres comprised only 3.3 percent of all agricultural land, yet made up 39 percent of the total number of holdings [Huberman and Sweezy 1961:9]. Over one-third of the farms were smaller than 5 acres, and nearly 70 percent of them less than sixty-two [Seers 1964:74]. The average coffee farm consisted of about twenty acres and the average tobacco farm about 7.5 acres [Black 1976:389]. In short, nearly three-fourths of all farms were so small that, taken together, they occupied only 11
percent of the total land [Nelson 1972:66].

The remaining farms varied in size and productivity depending on the crop(s) grown. In 1946, "middle-sized" farms (generally considered between 62 and 1234 acres) comprised 29 percent of the farming operations and took up 42 percent of all agricultural land [Seers 1964:75]. These farms usually dealt in the more labor intensive and specialized crops such as coffee or tobacco, and occasionally in cane or domestic food crops. They relied on hired labor, although they rarely generated sufficient income to support the "absentee landlords" of the large estates.

Economy

The stagnation of Cuban agriculture, and of the Cuban economy generally, was an important factor giving rise to revolutionary movement within Cuban society in the 1950s. While there are no official figures for income distribution before the revolution, Cuban society exhibited the polarization of wealth typical of underdeveloped economies. Two researchers' separate estimates indicated that the poorest 20 percent of Cubans received only between 2 and 6 percent of total national income, while the richest 20 percent received more than 55 percent [Brundenius 1981:42]. Cuban Vice President Carlos Raphael Rodriguez estimates that the wealthiest 15 percent of families captured 43
Cuba's agricultural labor force was unique by Latin American standards. Due to its history of dependence upon sugar production, Cuba never developed the high percentage...
of small subsistence peasant farms that operate outside of the mainstream of the national economy, and which typify the countrysides of many developing countries. Instead, Cuba's system led to the creation of a particularly large landless rural proletariat. Workers in the cane fields were wage laborers or peasants who depended on wages for a significant portion of their income [1]. A tradition of strong labor unions maintained relatively high wages for Cuban agricultural laborers. In the parts of agriculture which were operated as small-scale peasant production -- tobacco, coffee and food crops -- farming was specialized and commercially oriented. Consequently, rural workers and the urban proletariat depended on the same market to satisfy their daily needs. The division between town and country was thus not nearly so sharp in Cuba as in many underdeveloped nations [MacEwan 1981:4,11].

Before the revolution, the family was the major social institution in Cuban society. In isolated rural areas there were few church groups, schools and farm organizations to compete for the attention of family members; here family ties were more extensive than in urban areas and entire neighborhoods might be made up of related families. The family was the source of both economic security and social contacts [MacGaffey and Barnett 1962:51].

Common law marriage was very common in the countryside, especially in those areas far from any
government agency. This has been attributed in part to the various costs associated with a legal ceremony, the lack of social and economic stability, and a general distrust of authorities [MacGaffey and Barnett 1962:52; Nelson 1950:193]. In rural areas, common law marriages were slightly more numerous than legal marriages, while in towns nearly three times as many people claimed to be legally married as said they were married by consent. That these consensual marriages were often more binding on the wife than the husband is evident in the saying: "I am single, and here is my wife." [MacGaffey and Barnett 1962:52-3]

In 1953 the average country household consisted of 5.75 people, usually a husband, wife and their children. Contrary to the stereotyped image of extended Latin families, only 14 percent of all Cuban family households included grandparents or other relatives (largely among high-income urban families) [MacGaffey and Barnett 1962:53]. A 1946 survey of 742 families showed that the median size of a family decreased with lower job status. That is, the median family size of farm owners was 7.5; renters, 7.2; sharecroppers, 6.9; and at the bottom, laborers, 6.7 [Nelson 1950:192].

Prerevolutionary family roles were largely inherited from those of the Spanish Roman Catholic family. The man was the dominant force in the family, subscribing to all the double standards and machismo which typify most Latin
American cultures. He was supposed to be dominant, virile and aggressive in his professional and sexual lives. However, families descended from African slaves retained vestiges of the matriarchal system where fathers were just infrequent visitors to the home [Black 1976:119]. As a general rule, husbands were four years older than their wives [Nelson 1970:192]. A husband had all legal authority over his wife, who was not allowed to engage in any business transactions without his permission [MacGaffey and Barnett 1962:53].

In both urban and rural areas the basic identity of most women was deeply rooted in home and family. The "senora" was to stay at home, exemplifying piety, faithfulness and subservience; she had little or no personal income as women rarely worked if at all possible financially. This economic dependence on men was greater in rural areas than in urban provinces: in 1953, 10 percent of all women over the age of fourteen were heads of households in the highly urban province of La Habana, as compared to 6 percent in Pinar del Rio, the most rural province [Black 1976:119; MacGaffey and Barnett 1962:54].

In contrast to the pampering of wealthy urban children, rural children received little schooling and were encouraged to join the work force at an early age to help support the family [Black 1976:119; MacGaffey and Barnett 1962:54]. According to Lowry Nelson: "Obedience to and
respect for parents is developed in the child. This, it appears, is accomplished without harsh punishment....Children are generally considered to be subject to the will of the parents -- notably the father -- until they are married, whatever their ages may be." For example, although the use of tobacco was very common among men in Cuba, it was customary for grown sons not to smoke in the presence of the father until after the son was married [Nelson 1950:187].

CONDITIONS AFTER 1959

Agriculture

When Fidel Castro and his followers attained governmental authority at the beginning of 1959, the country was dominated economically by a Cuban elite and foreign interests. The revolution had built itself in rural Cuba, most particularly in the remote mountainous regions of Oriente province. The area was inhabited by the poorest of the Cuban peasants and those most likely to benefit from the reorganization of the rural sector. This early connection between the Rebel Army and this group of peasants was partially responsible for the new government's dedication to agrarian reform [MacEwan 1981:28].

One of the earliest and most far reaching changes of the revolutionary government was the institution of two agrarian reform laws, one in 1959 and the other in 1963.
The implementation of these laws resulted in the following changes in the agrarian structure of the country:

1) The confiscation of all properties in excess of 993.7 acres [3]. For particularly productive land this upper limit was raised to 3314.7 acres (1342 hectares). The relatively large upper limit on private plot size was both a political and economic maneuver to lessen resistance to the new government's practices among "middle sized farmers" and to keep production incentives and figures high. Due to the notoriously high concentration of land ownership, nearly three quarters (73.3 percent) of agricultural land was held in parcels larger than the reform's upper limit of 993.7 acres. This enabled the government to bring the majority of farming and ranch land under its jurisdiction while stepping on the toes of relatively few owners (9.4 percent). After the second reform, land parcels in the revolution's definition of a "middle bracket" (165.5 - 993.7 acres) were expropriated as well. However, farmers were assured that this was the last round of expropriations.

2) Large estates that had been worked as a single unit were not divided up, but were worked first as cooperatives, and later as state farms. Landless agricultural workers were employed as laborers.

3) Every person cultivating up to 165.5 acres was given ownership of that land.

4) Every person who worked the land was entitled to a subsistence minimum of 66.7 acres.

5) The Instituto Nacional de Reforma Agraria (INRA) was established to implement the law [MacEwan 1981:39].

These changes formed the foundation of a socialist form of agricultural production. At first, the "new" organization in the countryside in many ways resembled the old: large "centrales" or sugar plantations remained whole
and were now state-owned and operated farms. They retained the same manager-worker organization, but were accountable to the new government agency INRA. Small private farmers were grouped under the administrative wing of another governmental agency, the National Association of Small Farmers, or ANAP. The ANAP was originally set up in 1961 to help implement official policy guidelines but eventually came to control and regulate flows of technical assistance, equipment, fertilizer, and seed to the private sector. Private farmers were not free to plant what they wished; they participated in production plans directed by the state, which purchased their crops at fixed prices. As a result of the implementation of the reforms and further acquisitions of private farmland by purchase or through death of owner, the state had acquired approximately 80 percent of all farmland by 1983 (see Figure 2.2) [Benjamin et al. 1984:162].

One of ANAP's major duties has been to organize independent private farmers into agricultural production cooperatives. These cooperatives have taken various forms over the past 25 years, but have settled into a network of private farmers who pool their resources and labor, grow crops in accordance with government desires, and share equally in any profits. In 1983, cooperatives comprised 51.5 percent of farmer-owned land in Cuba, or 354,813 acres [CCS 1983:25]. With government support, members of some
FIGURE 2.2: STATE VS. PRIVATE LAND OWNERSHIP (a)
(100 percent = total cultivated land)

First Agrarian Reform, 1953
44% State
56% Private

Second Agrarian Reform, 1963
63% State
37% Private

1983
80% State
9% Individual
11% Coop

(Total private = 20%)

(a) Varying figures appear in both official and secondary sources. Land surveys, especially before the revolution, were far from accurate. Another problem is that some figures refer to total land area, others to cultivated land.

Source: Benjamin et al. 1984: Figure 1
cooperatives have constructed communal living quarters adjoining their farm lands. This has facilitated supplying formerly scattered peasant dwellings with electricity, education, sewage and running water. Despite the social improvements and economic advantages offered to coops (such as cheaper loans and use of government equipment) a large number of farmers resist incorporation of their land into cooperatives because there is still ample opportunity for an enterprising farmer with productive land to profit handsomely from private sales of produce left over after fulfilling his government quota (both legally and on the black market).

Economy

Briefly stated, the early reorganization of agriculture combined with the loss of trained personnel, high incidence of bad weather and disease, poorly coordinated attempts at diversification of agricultural production, institution of an economic embargo of the nation, and an overly optimistic leadership, resulted in an economic crisis by the end of the first decade of the socialist government's rule. However, Cuba appears to have learned from these mistakes. By 1976, the country had refined its ideological desires to fit the realities of its economic situation. To improve productivity levels, economic incentives were offered to workers, as well as the
recognition previously provided. To make these monetary rewards worth something, more consumer goods were made available, although at exhorbitant prices. In 1980, a parallel "free market" was opened up in which private farmers and cooperatives were allowed to sell surplus produce (outside of that produced for the government quota) directly to consumers at a price higher than the rationed foods, but generally of much superior quality and diversity. Due to various problems, the full operation of these markets has been limited since 1983 [Benjamin et al. 1984:Chapter 5]. Meanwhile, the state sector has returned its focus to what it does best: growing sugarcane.

Society

The institution of agrarian reform has been of great importance for the status of Cuba's rural population. One of the main goals of the government has been to end the dispersion and isolation of large parts of the agricultural population. The reason for this is two-fold: first, Castro had made promises of a better life to the peasants of Oriente province who aided him in his guerrilla battles there. Now it was time to come through on these promises. Secondly, the new government wanted to avoid a colossal convergence of people upon Havana as was experienced in so many other Latin American capitals. To satisfy these requirements the fledgling government promoted the
development of rural areas while avoiding improvements in Havana or other urban centers. President Castro summarized the policy as a "minimum of urbanism and a maximum of ruralism" [Grandma Weekly Review (GWR) 1/24/71].

To keep people in rural areas the government made a large financial commitment towards the building of roads, schools, factories, sewage system, electricity, and other forms of social investment. Part of this scheme involved the construction of new small towns in rural areas, each linked to a nearby source of agro-industrial employment -- often a state farm. The rationale for rural urbanization was outlined in the Cuban newspaper, Granma:

Each town is centered around one principal industry and is built near it, thus cutting down on transportation time for the vast majority of the work force, which results in greater punctuality, less absenteeism and higher work productivity while also giving the worker more time in which to raise his technical and cultural level. Moreover, farm women can now take part in socially productive activities in the community. [GWR 6/9/74; cited in Mundingo and Landstreet 1981:12]

The construction of these communities began during the 1960s and by 1979 some 347 new communities housing approximately 150,000 persons, mostly agricultural workers, had been built. As of 1979, an additional 20,000 housing units were under construction in rural areas. Available statistics indicate that communities built recent years consist of about 120 families each, or roughly 500 persons
per community, living in multi-family housing complexes. Somewhat over two-thirds of the towns already built or in the planning stage are agriculturally related, mostly for cattle, cane and sugar mill workers. However, as of 1981 the new communities had only incorporated a small portion of the rural population (about five percent) [Mundingo and Landstreet 1981:11-12].

CONCLUSIONS
Just as before the revolution the economy of Cuba is dominated by agriculture, and agriculture is dominated by sugarcane. After a brief and financially devastating attempt at diversification in the 1960s, Cuba returned to sugar as the country's main source of revenue. Although huge sugarcane plantations still cover the countryside, these are now run as large state farms and cooperatives, under the administration of the government. The few remaining independent farmers who cultivate smaller private plots usually specialize in more labor intensive crops, such as garlic and onions.

The change to a socialist form of agricultural production has also altered the lives of farming people. The majority of farm laborers continue to work for daily wages as before the revolution; however, they now have greater access to basic services (such as educational and health facilities, electricity and clean water) as well as
improved job security and housing. The lives of women, in particular, have been changed by the rural reorganization. The greater availability of new services through agricultural cooperatives and new state towns, including day care, laundry services, adult education and non-agricultural job opportunities, has greatly expanded the economic and social independence of rural women. On the other hand, women now perform "double-duty", that of wife-mother/worker-revolutionary. Although the government has made efforts to alleviate the extra burden placed on women, substantial social and material constraints, such as the lack of modern household conveniences and the perserverence of male dominance, continue to hamper attempts to elevate the female position in society. The demographic and socio-economic consequences of these changes are the subjects of the following chapters.
NOTES TO CHAPTER TWO

[1] In 1952 63.6 percent of Cuba's agricultural labor force consisted of wage laborers; 27.1 ranchers and farmers; 8.1 percent unpaid family workers; 1.1 administrators and foremen [Seers 1964:Table 11].

[2] In fact, a study carried out in 1941 pointed out the high cost of marriage for black cane cutters in Oriente province prior to the Revolution: "Many are unmarried but live with women and rear illegitimate children. The legal marriage fee is $1.00 but witnesses cost $2.00 each, the civil judge charges $8.00 for executing the transactions, and the license costs $6.00, which makes a total charge of $12.00 to $18.00 to consummate a government civil marriage" [Hageman 1975:28].

CHAPTER THREE
SOCIALISM AND POPULATION GROWTH

INTRODUCTION

Economist Thomas Malthus is said to have originated the first complete population growth theory in the late eighteenth century. Theories on the nature of human fertility have evolved and changed considerably since he published his first "Essay on the Principle of Population". The most recent body of thought to challenge Malthusian supremacy comes from less developed countries and the socialist block. The following is a brief review of the formation of modern views of population which have greatly influenced Cuban perspectives on population growth.

POPULATION THEORIES

Malthusian Theory

Malthus hypothesized that population increased geometrically while the means of subsistence grew arithmetically. Ultimately this meant that people would outgrow their food supply (barring any great advances in technology). However, Malthus explained that this did not happen immediately due to a system of "positive" and "preventative" checks. Positive checks are those which affect the death rate, including "unwholesome occupations, severe labor and exposure to the seasons, bad nursing of
children, excesses of all kinds, great towns and manufactures, the whole train of common diseases and epidemics, wars, infanticide, plague, and famine". "Preventive" checks are those which influence the birth rate, and include "moral restraint" (postponement of marriage or not marrying at all), promiscuity, homosexuality, and contraception [Malthus 1960]. Malthus believed the basis of overpopulation was biologically motivated in hunger and sex, and gave little credence to the ability of social change to alleviate the squalor of the poor.

A new version of Malthusian theory gained prominence in Europe during the late nineteenth century. Neo-Malthusianists differed from their predecessors in two major beliefs. First, followers of this theory advocated birth control as a direct means of improving social and economic conditions. Family planning associations such as the International Planned Parenthood and the Pathfinder Fund came from these neo-Malthusian roots. Second, although these groups still believed that economic aid to the poor stimulated fertility, they worked to improve maternal and child welfare. As time wore on, the neo-Malthusian leagues began to emphasize family planning over all other concerns, avoiding discussions of the theoretical and economic aspects of population growth. The period after World War II saw a rekindling of demographic concern, especially for the burgeoning populations of
developing countries. This time the United States hosted the upsurge of neo-Malthusian thought, initially establishing organizations to aid in the population problems of the Third World (such as the Population Council in 1952), and eventually forming groups concerned with demographic issues in industrialized countries (such as the Zero Population Growth movement in 1968).

Marxist Alternative

While the neo-Malthusians worked on their solution to overpopulation, Marxists were creating their own population theory. A heated organizational and ideological rivalry existed between the two movements during the late nineteenth and early twentieth centuries. The major rift arose from the socialist belief that the source of poverty lay within socio-economic organization, and that fluctuations in reproductive rates result from changes in the level of human welfare. Although the Marxist factions agreed with the family planning groups that birth control was a basic human right, they did not promote it as a panacea for social and economic turmoil. Indeed, the leading socialist countries have long accused the capitalist nations of promoting birth control in less developed nations as a false solution to social unrest, thereby hampering the rise of communist governments. More recently, neo-Malthusian enthusiasm for population control, especially in less developed countries, has been
denounced by the communist block as an imperialist means to protect the power of the ruling classes from economic disarray and to maintain a source of raw materials for production.

SOCIALIST POPULATION POLICIES

Soviet Policy

The Soviet Union serves more than any other country as an ideological model for Cuban communist theory. One major fact must be remembered while considering Soviet population policies: in modern history the USSR has never had an overpopulation problem. Indeed, during the 1960s, the Soviet birth rate per 1000 persons declined by one-third, from a level of 25 in 1960 to 17 in 1967. In 1967, for the first time during a period of internal peace, the rate of natural increase (births minus deaths per 1000 people) fell below ten [Landstreet 1976:39]. By 1979 it had reached 8.0 per 1000 [UN 1984:140]. With a history of such low rates, most policies have been designed to increase the growth rate, not lower it. The population question here is indissolubly linked with one central economic issue: labor. This leads us to a major paradox of population issues among the less densely populated socialist countries (e.g. the USSR, its satellites, and Sweden): although reproduction is considered a private decision to be made by couples, children are the labor force of future generations. In the
words of V.I. Lenin, birth control is among "the elementary democratic rights of citizens"; however Joseph Stalin believed "...people are the most precious capital." People are a major source of directed power in a labor intensive society, yet some of the basic tenets of socialist organization (e.g. improvements in socio-economic levels and the availability of birth control and abortion) also tend to reduce fertility.

The impact of this contradiction on population policy is evident in the inconsistency of Soviet laws on abortion: in 1920 abortion was made cheap and legal in accordance with socialist doctrines on sexual equality and reproductive freedom; but after the tremendous loss of human lives in the early part of the century this law was reversed in 1936 to stimulate sagging fertility rates. However, as the demographic experience of Romania and Bulgaria has shown, increases in fertility due to a sudden constriction of legal abortions is quickly replaced by illegal operations and a corresponding rise in deaths among women [1]. In 1955, the government responded to the high instance of illegal abortions by again making it legal, while placing a greater emphasis on contraception [Tietze 1981:12].

The policies discussed above all refer to explicit aspects of population growth: contraception, abortion, death, etc. However, there are many other less apparent social and economic factors which also influence
fertility. Soviet demographers have proposed explanations of the apparent negative impact of their socialist society upon fertility. The standard explanation of the sources of the Soviet fertility decline is that present society is just a phase of communism; when women are truly free of personal economic responsibility for a child (i.e. when the state provides all material necessities of life) they will be free to produce many more children [Landstreet 1976:51-2]. In the meantime, government efforts to increase the birthrate (especially through programs affecting abortion, contraception, female labor, and housing) have had little impact. These pro-natalist efforts have not been well coordinated. For example, although women receive economic benefits for having a large family, these remunerations often fall far below the actual cost of the child, especially if the woman must quit a good job to tend to her family. As one researcher states: "Pro-natalism is still largely rhetorical....The actual, if unintended, impact of many government policies tends to depress fertility. In practice, there is no clear single policy involving a coherent group of programs to raise the birth rate" [Landstreet 1976:39].

Chinese Policy

At first glance, China's population of over 1 billion appears to refute the Soviet experience that certain aspects of socialist organization naturally depress
fertility. But to compare these two nations is tricky. At the time of the communist revolution in 1949, China was much more densely populated than the Soviet Union today (146 people per square mile in China, 1949; 31 per square mile in USSR, 1982) [Lane 1983:547]; however, the Chinese birth rate was estimated between 30-40 per 1000 for the early time period -- a rate similar to that of the Soviet Union in 1937 [Landstreet 1976:32]. In accordance with Marxist doctrine, however, the fledgling Chinese regime was not interested in controlling its rate of growth. Chairman Mao Tse-tung felt a large population was no threat to the Chinese system: "Of all the things in the world people are the most precious" [quoted in Landstreet 1976: 234].

Due to their dissimilar demographic structures, China and the Soviet Union approach the problems of population growth in different fashions. In the Soviet Union, the socio-economic conditions under socialism have contributed to the decline in growth that was already begun by the time of the revolution. In China, the impacts of socialism have probably also had a negative effect on growth rates, but not enough to counter the tradition of large families and the demographic repercussions of a vast number of people in the reproductive ages (65 percent of all Chinese are under 30 years old) [Hua 1980]. Recent changes in leadership and the economic realities of rapid population growth have led to a thorough reinterpretation of Marxist
population theory in modern-day China: the government has reconciled Marx and Malthus, thus resolving the conflict between doctrine and domestic practice. The Chinese have opted for stringent anti-natalist policies -- policies which have come under harsh criticism in the Soviet Union, as well as in capitalist countries [2].

China's birth rate declined rapidly during the 1970s, reaching 21 per 1000 in 1980. This decline was largely achieved through the use of aggressive economic incentives and disincentives to promote one-child families [Chen 1979]. Despite the apparent effectiveness of these measures, aspects of the socialist transition (such as incorporation of women into the labor force, housing shortages, availability of abortion, contraception and health care), cannot be ignored. Although China's active demographic policies make it very difficult to appreciate any advantages gained solely through the socialization process, this does not mean that socio-economic changes have not played a major part in reducing fertility. In her analysis of the roles of agricultural women, Ruth Dixon hypothesizes that each of the following factors has an antinuptial and antinatalist effect on the Chinese country dweller:

Nonagricultural employment; living quarters for unmarried women; money incomes; shared responsibility and leadership; cooperative ownership; the acquisition of vocational skills; training in...literacy; the provision of family-planning and child-care services...;
peer-group support and solidarity from co-workers; and a source of pride and prestige apart from marriage and child bearing. The reorganization of the agricultural sector should change both the attitudes of women toward themselves and their roles, and given time, the attitudes of men as well. [Dixon 1976:309]

In summary, the controversy between Marxist and Malthusian approaches to population growth has waned as each proponent has compromised in the face of the real population problems of both socialist and capitalist countries. In the ten years since the 1974 World Population Conference, an international consensus has begun among demographers on the causes of rapid population growth and on the most effective ways to control it. Basically, it appears that there is at least a latent agreement among Soviet, Chinese and American students of population that there is a range of social phenomena (norms, values, aspirations, and occupational roles) which can vary independently of the fact of socialist or capitalist organization, and that it is these factors which are most significant in determining population growth rates. The socialists now admit the value of promoting birth control and abortion, while the capitalists agree that socio-economic factors play a significant role in determining fertility.

The remainder of this chapter investigates what impact these socialist approaches to population control have on Cuban growth policies.
Cuban Policy

The official Cuban view on domestic population growth regards birth control as a secondary measure: contraception and abortion are readily available, but these services have more to do with a commitment to provide quality health services and to facilitate the entry of women into the labor force than with demographic objectives. The government stresses that it is the combined effect of its population and development policies that has resulted in a steady reduction in both fertility and the rate of population growth [Hollerbach and Diaz-Briquets 1983:98; Mundingo and Landstreet 1981:15].

Unlike China's official antinatalist policy, or a number of eastern European countries which have adopted pronatalist policies out of a concern with future labor shortages, Cuba has never really had an official "population policy" designed to affect domestic growth rates directly. Although Cuba regards population growth as compatible with the nation's economic development strategies, the demographic plight of other less developed nations has forced officials to admit that rapid population growth can be detrimental to development elsewhere. A statement by A. Gutierrez Muniz, Minister of Public Health and head of the Cuban delegation at the 1974 World Population Conference in Bucharest defined this position:
While we are of the opinion that profound structural changes are the only way to development and the permanent solution to demographic problems, we are not opposed to the use of a demographic policy of birth control as the instrument for alleviating the problems that exist in the underdeveloped countries as a result of population density and the lack of development of natural resources. [GWR, 9/22/74; quoted in Landstreet 1976:269]

Sources of Demographic Indifference

There are several possible reasons for Cuba's lack of concern with controlling domestic population growth through population control.

First, like the Soviet Union, population size has never really been a problem in Cuba. "Cuba can support splendidly a population three times larger than it now has; there is no reason then for the misery of its inhabitants" [Castro 10/16/53]. Cuba entered into its demographic transition long before other Latin American countries and had achieved relatively low birth and death rates by the time of the revolution (26 and 7.3 respectively, in 1958) [Hollerbach and Diaz-Briquets 1983b:11]. Demographer Barent Landstreet attributes the early decline in Cuban fertility to three factors: 1) Cuba's history of economic and cultural ties to the United States; 2) a substantial amount of European immigration (people already affected in some measure by the Industrial Revolution); and 3) the domination of a sugar economy which created a rural proletariat instead of the small
subsistence farmers who are almost universally associated with high fertility [Landstreet 1976:88].

Second, in accordance with Marxist belief, the government regards childbearing decisions as the right of individuals and couples, not to be subjected to government influence.

Third, population control is a sensitive political issue within the communist/capitalist debate. Cuba officially opposes US sponsored population control in developing countries: to overtly support these aggressive programs would amount to accepting "imperialist" methods of dealing with underdevelopment. A related political consideration is the significance of rapid population growth and the corresponding social unrest as a prerequisite for communist revolution.

A fourth reason for Cuba's indifference to population growth is the great ideological emphasis the government places on social and economic reforms which lessen the need for direct fertility control. For example, although Cuba has no specific targets for fertility reduction, the government has established a variety of objectives related to fertility regulation. These include the reduction of the frequency of abortion and repeat abortion; prevention of high-risk pregnancies; improved quality of maternal/child health/family planning services through the use of more effective contraceptives and increased coverage to reduce regional availability differences; and prevention
of the transmission of genetically determined illness [Hollerbach and Diaz-Briquets 1983:97].

A fifth reason stated here for Cuba's apparent lack of an official population policy is the economic need for labor. As in the Soviet system, Cuban fertility represents an investment in future labor in an economy where increases in total output depend heavily on incorporating large numbers of people into the work force. President Castro acknowledged this: "Our people are our most important natural resource" [Castro 7/26/74]. But such statements do not mean that the Cuban leader is blind to problems associated with rapid population growth:

With an annual rate of population growth of 2.3 percent and with almost 40 percent of the population made up of persons under 15 years of age, the effort that our people must make is considerable. Just to offset the population increase alone, less than 12 percent of the available gross national product must be invested to compensate for such growth. And this effort must be made by half the population, excluding children and persons over sixty. [Castro 3/13/68]

Fidel Castro's words reveal that the major population issue in Cuba today is not so much absolute numbers of people (nearly 10 million in 1984 [Norniella 1984]) but rather the age structure of the population. A baby boom following the revolution (1959-64) put additional pressures on the new government to supply ample day care, schools and future jobs. The age dependency ratio (or the number of people in the "dependent" ages under fifteen or
retired compared to those in their economically active years) was 86.3 in 1982 (compared to about 60 in the US [Lane 1983:551]). This means that only 54 percent of the total population (male and female) was in the working ages, while 46 percent were in the dependent ages [CEE 1982:71]. Efforts have been made to compensate for this large dependency burden and to increase both the size and productivity of the labor force within the confines of the current age structure. These policies include:

1) Economic Incentives - The government awards bonuses for extra or exceptional work to boost worker productivity.

2) Full Male Employment - In 1971 Cuba adopted an "anti-loafing law" requiring all able-bodied men between the ages of seventeen and sixty to work (unless studying or in the military).

3) Female Labor Participation - Massive efforts have been undertaken to incorporate women into the labor force, including provision of child care, boarding schools, meal plans, shopping plans, paid maternity leaves, and extensive contraception and abortion facilities in both urban and rural areas.

4) Voluntary Labor - This policy involves citizen participation on a voluntary basis in unpaid work. It mobilizes extra labor both among those not employed (women, children and retired persons), and outside the regular working hours.

5) Military Labor - A three year period of military service is compulsory for males, and recruits perform agricultural labor during much of their term in service. Now there is a branch of the service for youth who are neither fit for the army nor for study. These boys are drafted for a three year program of training and agricultural work.

6) Work-Study Education - There are two main programs designed to bring children into the
agricultural work force: the "school to the countryside" program under which urban secondary students go to rural areas to work for about 35 days each year; and the "school in the countryside" program under which high school students live and study in rural boarding schools, returning home on weekends, and do about three hours of agricultural work per day on land belonging to the school. Announcing plans to incorporate children into the work force, Castro noted: "According to our latest census [1970] there were...3.5 million [children]. Just think, 3.5 million consumers! Up to now, practically all of them are consumers only. But now you will not be consumers only -- now you will be producers also" [Castro 4/25/71]. Two years later he added that "it is to be expected that in the coming decade, after 1980, educational expenditures will be compensated for by the productive work of the students. There is no other way for a country like ours [to pay] for a universal education program" [Castro 10/22/73].

CONCLUSIONS

It appears that Cuba and the Soviet Union face a similar demographic and socio-political paradox: both rely on human labor for production, yet both are ideologically committed to the provisioning of birth control, abortion and those types of socio-economic change which are generally known to depress fertility. However, whereas the Soviets follow a decidedly pro-natalist policy to offset their diminishing birth rate, Cuba has no official population policy. If anything, Cuba's efforts to increase the size of the labor pool by tapping traditionally unutilized sources, combined with the lack of any overt attempt to promote fertility, and the widespread availability of fertility regulation indicate a somewhat
anti-natalist position. However, there are certain aspects of the socialized system which should tend to increase fertility, such as inexpensive day care and educational facilities, but these appear to be overwhelmed by other factors associated with working women (to be discussed in Chapter Five).

With a continued decline or even stabilization in the Cuban birth rate it is unlikely that concern over rapid growth will mount in the near future. Demographic efforts will continue to focus on the problems of age structure (dependency burden), the improvement of women's position in society and the increase the labor force size and productivity.
NOTES TO CHAPTER THREE


CHAPTER FOUR
DEMOGRAPHIC TRENDS

INTRODUCTION

This chapter investigates the major demographic trends in Cuba over time, with emphasis on the two decades since the revolution. The chapter is divided into seven sections. After a critique of the available demographic data and a review of demographic terminology, the investigation turns toward the fluctuations in fertility trends, followed by a review of mortality. An explanation of migration patterns is next, followed with the composition of the Cuban population (age, sex and race), and finally an examination of trends in nuptuality. In each area specific consideration is given to demographic change in rural areas.

This review provides the reader with statistical background on the demographic trends of the past two decades. The opening of this demographic window will reveal the forces behind these trends reviewed in Chapter Five [1].

STATISTICAL REVIEW

Before presenting statistical data on the demographic situation in Cuba it is necessary to review the validity of the figures and their sources. There are two major sources for Cuban demographic data: census material and vital
The last census taken before the revolution occurred in 1953 and is considered of average quality [2]. The following censuses taken in 1970 and 1981, however, resulted from a comprehensive national effort which covered 96 percent of the population in 1970, and a higher figure for 1981 [3].

**TABLE 4.1: POPULATION SIZE ACCORDING TO CENSUS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899</td>
<td>1,572,797</td>
</tr>
<tr>
<td>1907</td>
<td>2,048,980</td>
</tr>
<tr>
<td>1919</td>
<td>2,889,004</td>
</tr>
<tr>
<td>1931</td>
<td>3,962,344</td>
</tr>
<tr>
<td>1943</td>
<td>4,778,583</td>
</tr>
<tr>
<td>1953</td>
<td>5,829,029</td>
</tr>
<tr>
<td>1970</td>
<td>8,569,121</td>
</tr>
<tr>
<td>1981</td>
<td>9,723,605</td>
</tr>
</tbody>
</table>

Source: CEE, Anuario Estadistico [1982:63]

The registration of vital statistics provides information on births, deaths, marriages and divorces between census years. These data come from two major sources in modern Cuba: the National Consumers Register and the Civil Register. Carmelo Mesa-Lago [1969 and 1979], Barent Landstreet [1976] and Lisandro Perez [1973] have evaluated the quality of Cuban vital statistics registration over the past few decades. They recognize four
periods of varying statistical reliability among Cuban demographic data:

1953-1957 (Poor) – Data from this period is considered unreliable and incomplete, omitting infant deaths occurring under 24 hours and generally underregistering births and deaths; there is little or no record of internal migration during this time, although there are data on international movements.

1958-1964 (Moderate) – According to Perez, this period boasts fairly reliable government estimates: early infant deaths are included in the Civil Register, but underregistration continues somewhat, especially in rural regions. However, in a general statement referring to all government statistics (not just vital statistics) Mesa-Lago noted an "increase in quantity but decrease in quality" especially for the politically disorganized years 1959-1961.

1965-1968 (Good) – Administration changes led to the collection of very reliable statistics based on the national Consumer's Register (a system of ration cards issued to every Cuban and ideally covering the entire population). This development ushered in an era of more reliable statistics in Cuba, especially in demographic areas. The ration cardholder must register changes in address to shop at a new store (thus revealing his/her internal migration); he or she must register additions to the family due to birth or marriage in order to obtain the new ration, and subtract deaths. The major problem with the new system is the possibility of overregistration of births and underregistration of deaths in order to obtain a larger ration per family. (As one official stated to Landstreet in 1968, "En Cuba, los muertos tardan un poco en llegar al cementerio," or "In Cuba, the dead arrive at the cemetery a little late!") [Landstreet 1976:107]. In a rank-ordering of five statistical areas according to quality, Mesa-Lago lists demographic data from this period in second place [1969:76].

1968 - Present (Excellent) – The quality and sophistication of demographic data collection and use has continued to improve. According to Medea Benjamin, "...health statistics today are meticulously recorded. Ninety-nine percent of all
45

births are in hospitals, and all children receive monthly check-ups for the first year. Given the structure of Cuban society today -- the extensive health-care system, the neighborhood committees, the registration of households for allocating ration books -- it is hard to imagine any births or deaths going unnoticed" [Benjamin et al. 1984:96]. Indeed, Cuba's system of population registration has been likened to the comprehensive registers of more developed countries such as Denmark, Sweden, Norway, Finland, Belgium and Israel [Landstreet 1976:115]. The Anuario Estadistico for 1982 mentions "...a plan to obtain internal migration statistics with information from a system of Identity Cards..." [CEE 1982:58]. If such a system of Identity Cards indeed exists it can only help to further improve statistical reliability.

In general, the data presented in the following discussions are the most reliable available. Official Cuban figures of dubious quality are replaced when possible with revised estimates from the Population Council.

DEFINITION AND USAGE OF TERMS

Increasing concern over population growth worldwide has lead to a rise in the casual use of demographic terminology, and some confusion over the meaning of familiar phrases. To clarify, fertility describes the actual reproductive performance of an individual, couple, a group, or a population. There are several different measurements of fertility, general (or "crude") to specific, and each with its own applicability. General measurements, such as crude birth and death rates (# per 1000 people), are helpful mainly in making wide comparisons
between different populations and/or times, when more specific information is not universally available. The rate of natural increase is another broad measure of population growth, simply births minus deaths in a given year, expressed as a percentage of the base population. This rate does not include immigration or emigration. Similarly, the rate of population increase or growth is another way to describe the interaction between births, deaths with the added effect of migration. It is important to note that these crude measurements do not compensate for the age and sex structure of a population, which can lead to misinterpretation of the data. For example, if a population has an overrepresentation of people over 60 years old (say, in a retirement area), the crude birth rate would tend to be extremely low, while the crude death rate would be very high, despite the existence of excellent health care. Yet the crude measurement alone gives no indication of this skewed age structure, thus leaving the false impression that the entire population is in poor health.

There are several increasingly specific and sophisticated demographic measurements which avoid the shortcomings of the crude measurements. These include: the general fertility rate, or the number of live births per 1000 women aged 15-49 in a given year; the completed fertility rate, or the number of children born per woman in a cohort of women by the end of their childbearing
years; the age-specific fertility rate, or fertility rate of women aged 15-44 by specified age group; the total fertility rate, or the average number of children that would be born alive to a woman during her lifetime if she follows the age-specific fertility rates of a given year; and the infant mortality rate, or the number of deaths among children under one year old in a given year per 1000 live births in that year. Further definitions will appear in the text as needed.

FERTILITY

General Trends

Cuba was one of the first Latin American countries to begin the demographic transition to sustained low birth and death rates (see Figure 4.1). The decline in fertility began after the turn of the century, followed by a downward trend in the death rate in the 1920s. This trend continued uninterrupted until 1959, when a baby boom immediately followed the establishment of the Castro regime. Birth rates did not return to their prerevolutionary (and pre-boom) levels until 1973. Since that time the number of births has continued to drop dramatically: from its peak of 28 per 1000 population in 1964, the rate of natural increase has declined over 70 percent in sixteen years! By contrast, between 1960 and 1978 the Chinese rate dropped only 43 percent, and the Costa Rican rate declined 51 percent, while the Indonesian rate declined only 16.6
FIGURE 4.1: CUBAN DEMOGRAPHIC TRANSITION, 1900-1980

- Crude birth rate
- Crude death rate
- Rate of natural increase

Years 1900-1980

1900 10 20 30 40 50 60 70 80
<table>
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<tr>
<th>Year</th>
<th>CBR (a)</th>
<th>GFR (b)</th>
<th>CDR (c)</th>
<th>IMR (d)</th>
<th>Population Size Increase</th>
<th>Natural Increase</th>
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<table>
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<tr>
<th>Percent Change</th>
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<tr>
<td>1959-1964</td>
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<tr>
<td>1965-1973</td>
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<td>1974-1982</td>
</tr>
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</table>

*Estimated from census data [JUCEPLAN 1982:63]
(a) Crude birth rate
(b) General fertility rate (provisional)
(c) Crude death rate
(d) Infant mortality rate

percent. In all four countries the majority of the decline has occurred since 1970, but the Cuban descent has been the most precipitous [World Bank 1980:144-45; UN 1981:4]. By 1980, Cuba's rate of natural increase (8.4) rivaled the low figures of the United States (7.1) and other industrial nations.

The early reversal of the decline in population growth following the revolution was echoed by a smaller increase in the birth rate in 1971. Evidence strongly suggests that this relatively tiny baby boom (the birth rate jumped just over two points) was probably due to a backlog of births delayed until after the completion of a national campaign to harvest a record 10 million tons of sugarcane in 1970. Although this goal was never reached, the harvest recruited a record number of women into the work force during this period. Since the return to prerevolutionary fertility levels in 1973, the downward trend in births has continued with no major interruptions. The recent two point rise in natural increase is apparently due to changes in the age structure as the baby boom cohort enters into their reproductive years.

The Baby Boom

One of the most apparent effects of the revolution on demographic trends was the sudden reversal of the fertility decline after 1959: the baby boom following the institution of the Castro government brought the rate of natural
FIGURE 4.2: AGE-SPECIFIC FERTILITY RATES FOR CUBA, 1950-1980

Source: Hollerbach and Diaz-Briquets [1983:38]
increase to a high of 28.1 in 1964, the highest point since the turn of the century. As the age-specific fertility rates in Figure 4.2 reveal, the increase in births took place among all ages of fertile women, especially those 15-19 and 20-24. Although these increases are substantial, such demographic responses to political upset are not uncommon: sociologists find that violent revolution frequently results in a sudden upsurge in births accompanied by economic disarray for a period of about ten years. Lisandro Pérez explains that "perhaps it is not a coincidence that the highest levels of reproduction were reached in the period immediately following the political crises of 1957, 1958, and 1959 which resulted in the ascendancy of the revolution in 1959. Many observers of population trends have noted the increase in the birth rate which tends to follow such periods of turbulence and mobilization" [1977:38] [4]. Because the Cuban baby boom conformed to this predictable ten year cycle, it can be surmised that this rapid surge was merely a temporary aberration in the downward secular trend, and not a long term reversal.

Undoubtedly this alone is an insufficient explanation for the rise in fertility following the revolution. More detailed explanations are worth investigation if only because, as two researchers state, "...an understanding of the determinants of the boom helps to explain the extent and speed of the decline" [Díaz-Briquets and Pérez...
1982:523]. Although it is difficult to link concretely the social and economic changes following the revolution to the rapid decline of fertility since 1973, it can be stated with certainty that the baby boom was directly related to these new conditions.

First, it is important to realize that there was not a sufficiently disproportionate number of persons in the prime reproductive ages during the early 1960s to account for the sudden upswing in the birth rate. In fact, a large portion of the early emigrants from Cuba were among these ages, a loss which would only tend to depress domestic fertility. (This is discussed in more detail later). Then what were the causes of this baby boom? Cuban demographer Perez de la Riva cites an almost total disappearance of family planning after the revolution and especially after the U.S. economic embargo in 1961. Restrictions on abortion were enforced and contraceptives were in short supply. Social and economic reforms were enacted which lead to increasing aspirations and real economic growth among the poorer classes. In addition, the remarkably strong Cuban economic performance in the year and a half following the revolution embued the people with a general feeling of euphoria and a belief in the long term success of the new regime. These factors combined to act as a fertility stimulant, especially among very poor urbanites who were the recipients of the lion's share of new government policies [5].
The Baby Bust

The factors that contributed to the sudden upswing in births also contributed to the sudden return to declining birth rates. The government's honeymoon was over: economic performance was poor in the late 1960s and early 1970s. Socioeconomic reforms, such as education and health care, were altering the desire for children and offering alternatives to family life, especially for women. Severe housing shortages limited the establishment of new families, and mandatory schooling and child labor laws contributed to a low or negative economic value of children. The era of austerity and low levels of consumption began as the government leaders began to assess the future situation in a less optimistic light. The "euphoric mood of triumph was replaced by the real problems of survival in a changing social and political environment" [Diaz-Briquets and Perez 1982:523]. In short, although it is more difficult to explain with a certain degree of confidence than the baby boom of the mid-sixties, the recent decline in Cuban fertility is the result of a combination of objective and subjective factors associated with the aging of the revolution [Mundingo and Landstreet 1981:26].

Rural Fertility

In 1953, almost half of the population of Cuba was
rural; by 1980, a third remained rural and 70 percent were classified as urban (see Figure 4.3) [6]. The majority of the rural population lies in the agricultural provinces in the far eastern and southwestern tips of the island (Oriente and Pinar del Rio), while the central provinces remain more urban in character. (To facilitate making comparisons over time, the data presented in Figure 4.3 and elsewhere are grouped according to provincial divisions in use prior to 1976 when appropriate and/or available.) By 1982, Pinar del Rio and Oriente were the only provinces that remained more rural than urban in character, although it must be noted that this may be somewhat misleading given that the census definition for "urban" includes small villages of 2000 persons which can be quite "rural" in lifestyle and economic base [Mundingo and Landstreet 1981:9].

The baby boom was far less severe in the rural areas of Cuba than in the highly urbanized regions. As the figures in Table 4.3 show (the average number of live births per woman of childbearing age, 15-49), over a thirty year period rural areas consistently exhibited much greater fertility than urban regions. These figures also reveal the relative insulation of rural inhabitants vis-à-vis their urban neighbors from the political and socio-economic changes which promoted the baby boom. For example, between 1953 and 1970 the number of births per urban woman grew by +.29, while the rural figure declined slightly by -.05.
FIGURE 4.3: CUBAN PROVINCES BY PERCENT RURAL, 1953 AND 1982


<table>
<thead>
<tr>
<th>Region</th>
<th>1953</th>
<th>1970</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>1.57</td>
<td>1.86</td>
<td>1.67</td>
</tr>
<tr>
<td>Rural</td>
<td>2.63</td>
<td>2.58</td>
<td>2.23</td>
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<tr>
<td>Cuba</td>
<td>1.95</td>
<td>2.12</td>
<td>1.83</td>
</tr>
</tbody>
</table>

Source: CEE, Censo de Poblacion 1981 [1984:CLII]

Provincial figures for crude birth rates (presented in Table 4.4) confirm that rural provinces exhibit higher fertility, and experience fewer or are less sensitive to socio-economic changes which cause fluctuations in urban fertility. Although by 1958 fertility had reached moderate levels in most of the Cuban provinces, particularly in the central ones, birth rates remained high in the lower income and more rural provinces. Moreover, Pinar del Rio and Oriente experienced only 23.2 percent and 13.7 percent respective increase in crude birth rates during the postrevolution baby explosion, while the most urban province, La Habana, experienced a 40.6 percent increase during the same period (1959-1964). After 1965 fertility returned to its previous pattern of decline; by 1973 population growth had returned to prerevolutionary levels in all provinces. While the speed and degree of decline in
### TABLE 4.4: PROVINCIAL CRUDE BIRTH RATES BY FORMER DIVISION, 1953-1982

<table>
<thead>
<tr>
<th>Year</th>
<th>Pinar del Río</th>
<th>La Habana</th>
<th>Matanzas</th>
<th>Las Villas</th>
<th>Camaguey</th>
<th>Oriente</th>
<th>Isla de la Juventud</th>
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<tr>
<td>1953</td>
<td>32.0</td>
<td>18.7</td>
<td>24.4</td>
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<td>31.1</td>
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<td>23.7</td>
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<td>30.2</td>
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<td>17.3</td>
<td>19.8</td>
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<td>12.2</td>
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<td>16.4</td>
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<td>12.5</td>
<td>14.5</td>
<td>16.6</td>
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<td>19.1</td>
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Percent Change

<table>
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<tr>
<th>Year</th>
<th>1953-58</th>
<th>1959-64</th>
<th>1965-72</th>
<th>1973-82</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>-11.3%</td>
<td>+4.8%</td>
<td>+10.8%</td>
<td>+11.2%</td>
</tr>
<tr>
<td>1959-64</td>
<td>+3.2%</td>
<td>+4.0%</td>
<td>+3.9%</td>
<td>+6.4%</td>
</tr>
<tr>
<td>1965-72</td>
<td>-20.2%</td>
<td>-16.5%</td>
<td>-15.7%</td>
<td>-24.3%</td>
</tr>
<tr>
<td>1973-82</td>
<td>-34.1%</td>
<td>-33.5%</td>
<td>-37.1%</td>
<td>-35.9%</td>
</tr>
</tbody>
</table>

(a) Political emigration, predominantly from La Habana province, was notable during 1958-63 and 1965-72.

(b) For comparative purposes the data for 1977-82 have been restated to match the same provincial boundaries existing prior to 1976.

birth rates since 1973 is comparable between urban and rural provinces, the rural regions still maintain the highest crude birth rates (19.1 in Oriente vs. 13.3 in La Habana, 1982).

Reasons for Rural/Urban Differentials

As Table 4.4 shows, the baby boom was greatest in La Habana and least apparent in Oriente province. Of course, the potential for a rise was greater in La Habana with a prerevolutionary birth rate fourteen points lower than the Oriente rate. It could also be expected that the cutoff of fertility limitation methods would have a greater impact in those urban provinces where family planning had previously been more prevalent. Heavy rural to urban migration in the first years after the revolution may also have bolstered urban birth rates since the migrants arriving in the cities came from regions with higher fertility. And the newly arrived migrants, who were likely to be young people, could have exerted a downward shift in the urban population age structure which in itself would tend to raise the crude birth rate.

But probably the main factor in the greater rise of the urban birth rate was the urban poor's brighter prospects for the future that came with the increases in their disposable income as a result of such measures as price reductions in rents and utilities. In rural areas, many of the now cheaper amenities were not available in any
case and family planning was much less prevalent. In the urban areas the poor and not-so-poor were encouraged not only to marry earlier than they might have before the revolution, but also to begin childbearing earlier in married life. And many older women ended up having additional children that they might formerly have averted, either by contraception or abortion [Diaz-Briquets and Perez 1981:16].

Conclusions

The Cuban pattern of fertility decline is neither unique nor new. The demographic transition to low birth and death rates began early in this century, as was the case in many other Latin American countries. The unique aspect of demographic change in Cuba is that since the initial surge in the birth rate following the change in government (a normal demographic reaction to violent revolution), the downward trend has resumed at an unprecedented rate. The speed and degree of decline is especially remarkable because there is no overt government effort being made to lower fertility. Any change in the rate of natural increase over two points is considered significant -- since 1973, the rate of natural increase has declined about nine points, or over 35 percent.

Rural fertility remains higher than urban fertility. One explanation of this is the lesser impact of economic change in remote rural areas relative to urban zones. As
the following sections will reveal, differences in age, sex and racial composition also contribute to this urban/rural fertility differential.

Fertility is only one aspect of the Cuban demographic picture. Mortality also plays an important role in determining natural increase (or births minus deaths). The investigation now turns to recent trends in Cuban mortality and morbidity.

MORTALITY AND MORBIDITY

Population growth is directly influenced by the health of the group and resulting death rates. A population can slow its growth either by reducing the number of births per person, or by increasing mortality, as in the case of war, famine, plague, etc. Happily, the recent decline in Cuban population growth is due to an extensive decrease in fertility rather than an increase in mortality.

TABLE 4.5: CUBAN LIFE EXPECTANCY, 1950-1982

<table>
<thead>
<tr>
<th>Period</th>
<th>Life Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-54</td>
<td>58.8</td>
</tr>
<tr>
<td>1955-59</td>
<td>61.8</td>
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<tr>
<td>1960-64</td>
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<td>1965-69</td>
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<tr>
<td>1975-79</td>
<td>72.8</td>
</tr>
<tr>
<td>1980-84</td>
<td>73.5</td>
</tr>
</tbody>
</table>

Source: Valdes [1983:38]
Trends in Mortality

Over the past three decades, the Cuban death rate has declined, with minor fluctuations similar to the birth rate. The Castro regime has instituted changes in the public health system which have improved the health and longevity of the average Cuban; young children have particularly benefitted from these changes. Age specific death rates reveal that life expectancy at birth is steadily increasing, especially among those under one year. In 1980 the average life expectancy was 73.5 (or around 74 for women, 71 for men), compared with 58.8 in the early 1950s. The major causes of death in Cuba have evolved from those of a typically underdeveloped nation to ailments common in more industrialized countries. The following discussion reviews the decline in Cuban morbidity and mortality since the early days of the revolution.

In 1958, the crude death rate was 7.3 deaths per 1000 people, while the infant mortality rate was 36.7. As with births, the death rate rose during the first couple of years of the new government, reaching 7.7 in 1962; the infant mortality rate reached a high of 45.7 in the same year.

As with the baby boom, several explanations exist for this apparent increase in mortality following the revolution:
FIGURE 4.4: INFANT MORTALITY AND CRUDE DEATH RATE, CUBA
1958-1982
1) About one-third of all doctors emigrated. Estimates of numbers who left vary between 2500 and over 3000 between 1959 and the mid-1960s, but it is generally agreed that the majority of these doctors left during the first few years after 1959, before the government's efforts to expand medical education programs had produced many graduates.

2) The economic embargo created a shortage of medicines.

3) The transfer of health facilities and personnel from the private to the public sector created bureaucratic confusion and hampered health care coverage.

4) An increasing number of births placed extra pressures on existing health facilities; and

5) Changes in the bureaucratic system led to the improved coverage of death registration, especially among infants. Before and during the early years of the revolution only 90 percent of all deaths were actually registered with authorities. Infant deaths in rural areas, in particular, were underreported; thus the apparent increase in infant deaths after 1961 may be due in part to gradual improvements in the registration of vital statistics.

After 1965, the general downward trend in mortality resumed. By 1982, the crude death rate hovered around 5.8; infant mortality plummeted to 16.8 in the following year. It is understandable that the Cuban government is extremely proud of this relatively low figure, especially when compared with the Mexican rate of 59.8 and the US rate of 11.2 [UN 1984:Table 4]. This decline is largely attributed to the increased availability of free health services (including prenatal care, abortion and contraception), the increase in doctors per capita, and (to a lesser extent) improvements in sanitation. Innoculations against
contagious diseases have taken place on a national scale since the early 1960s.

Rural Mortality

Reductions in infant mortality have not been restricted to urban centers. As Table 4.6 and Figure 4.5 show, differences in urban and rural infant mortality have been greatly reduced as efforts have been made to expand health services to the isolated regions of the country.

<table>
<thead>
<tr>
<th>TABLE 4.6: INFANT MORTALITY BY FORMER PROVINCIAL DIVISION, 1973-1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinar del Rio</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>1973</td>
</tr>
<tr>
<td>1974</td>
</tr>
<tr>
<td>1975</td>
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<td>1979</td>
</tr>
<tr>
<td>1980</td>
</tr>
<tr>
<td>1981</td>
</tr>
<tr>
<td>1982</td>
</tr>
</tbody>
</table>

Percent Change
1973-1982 35.7% -37.1% -51.8% -31.5% -44.9% -44.3%

Source: CEE, Anuario Estadistico de Cuba 1982 [1983:Table II.11]

The two most rural provinces exhibit the greatest infant mortality rates, yet since 1973 the relative differentials
FIGURE 4.5: INFANT MORTALITY RATE IN ORIENTE, PINAR DEL RIO AND HAVANA PROVINCES, 1973-1982
between these and La Habana province has declined from 11.1 to 4.5 in Oriente (60%), and from 4.8 to 3.4 in Pinar del Rio (29%).

Trends in Morbidity

"Ninety percent of the children in the countryside are ridden with parasites which enter their bodies through their bare feet" [quoted in Bonachea 1972b]. Fidel Castro made this remark in 1953 to point out the need for health care in the rural regions of the country. Since that time the expansion of health facilities to the countryside, an adequate diet and small improvements in sanitation have greatly improved the average health of the Cuban rural dweller.

Increases in the average length of life have been accompanied by a change in the major causes of death and illness. Figure 4.6 shows this transition from diseases associated with malnourishment and poor sanitation (such as anemia and diarrhea, especially dangerous among children) to ailments of technologically advanced societies, such as cardiovascular diseases and cancer. Not only are these illnesses associated with a more industrialized economy, but they are also more frequently manifested among older age groups. When people live longer they are more likely to develop such degenerative ailments.

There has been a marked reduction in the incidence of infectious diseases such as tetanus, typhoid, and measles;
FIGURE 4.6: MAJOR CAUSES OF DEATH IN CUBA, 1910-1980

Source: Ministerio de Salud, Informe Anual (1980:22)
diptheria and polio have been entirely eradicated. However, the incidence of hepatitis per 100,000 people has increased since the mid-1960s by 45 percent, syphilis 42 percent, mumps 89 percent, and chicken pox 31 percent [CEE 1980:206]. Although these diseases are more prevalent now than in the 1950s, the chances of dying from them has greatly declined [Valdes 1983:42].

Conclusions

Death rates have declined all over Cuba since the firm establishment of the revolutionary government. Just as with the fertility decline, this appears to be a continuation of a secular decline begun in the early part of the century. Due to the relatively young age of the Cuban population Cuba has been able to maintain very low mortality rates in the past decade (around 5.7). With the continued aging of the population it is likely that this rate will climb a little in the future, reflecting the increasing number of deaths with old age. Similarly, the major causes of death will likely remain degenerative diseases, rather than early childhood and communicable ones. Rural mortality rates remain higher than urban ones, but the gap between the two has diminished substantially since the revolution.

MIGRATION

Migration can play an important role in reducing population growth within a given geographical area. "Births
minus deaths minus net migration" — this is the basic equation for population growth. Thus, another manner of reducing population growth is simply to remove people, especially those in reproductive ages, from a specified region. On an island such as Cuba, the most significant form of migration is external: Cuba has experienced a net loss in population through migration every year since 1960. That is, in 25 years Cuba has lost approximately 950 thousand persons (9 percent of its 1982 population) while gaining only 200 thousand through immigration, resulting in a net loss of over 750 thousand individuals.

Major Trends

Over the years, changes in political and economic policies have led to fluctuations in emigration levels. Generally, there have been three major waves of external migration; a trough follows each wave (see Figure 4.7).

Between 1959 and 1962, Cuba experienced a net loss of 183,766 people. Travel to and from the island was available through commercial airline flights. This initial wave of emigration following the establishment of the Castro regime consisted largely of the upper classes: wealthy land owners, professionals, managers, technicians and skilled workers. The initial outflow was counterbalanced, however, by an even greater number of Cubans returning to their country from abroad, resulting in a net gain of over 12,000 persons in 1959. Between 1960 and 1962, numbers leaving
FIGURE 4.7: NET INTERNATIONAL MIGRATION, CUBA 1959-1982

exceeded those entering the country by approximately 65,000 persons each year [Landstreet 1976:165]. This initial outflow was followed by a trough: between 1963 and 1965, net migration dropped to 42,995. After the Cuban missile crisis in 1962, most commercial airlines stopped flying to Cuba, which resulted in a dramatic reduction in the exodus to a little more than one fifth of the number who left in 1960-62 [Mesa-Lago 1981:43]. In the meantime the Cuban government introduced tighter controls for the exit of technicians or skilled personnel and barred the exit of those between 15 and 26 years of age.

The next period of substantial losses was between 1966 and 1972, when 334,803 Cubans left the country, mainly via an airlift established between Cuba and Miami, Florida (two flights a day, five days a week). This big migration wave rivaled its predecessor, but this time there was significantly less loss of managerial, professional, and technical personnel. During its seven years of existence, the airlift carried out over a quarter of a million Cubans [Landstreet 1976:166; Mesa-Lago 1981:44]. The following five years, 1973 through 1979, was a period of restricted emigration. Net migration figures for this time total only to 37,448.

Emigration in 1980 alone made up for these six years of tight travel restrictions. In the spring of 1980 there was a massive departure of about 125,000 people in less than five months, mostly leaving by sea from the port of
Mariel, west of Havana. These migrants consisted of those persons who originally benefitted the most from the change in government in 1959, yet who became frustrated and disillusioned with the real economic problems still facing Cuba in the 1970s [Diaz-Briquets and Perez 1981:27]. The net loss of 141,742 people forms the largest group in one year. Since 1981, the Cuban and US governments have restricted travel directly between the two countries. Even with these restrictions, Cuba experienced the net loss of 27,162 people through 1982, presumably to destinations outside of the US. As of June 1984, the only persons allowed to travel from the US to Cuba were journalists, professional researchers, guests of the Cuban government, those with special licenses (such as performers and athletes), and Cuban-Americans visiting relatives [Benjamin et al. 1984:196]. In May 1985, the US government began broadcasting Cuban and US news onto Cuban airwaves via "Radio Marti". In retaliation President Castro suspended all negotiations to ease migration restrictions.

Demographic Consequences of Emigration

Despite the early losses of trained professionals, emigration has positively impacted several aspects of the Cuban economy. The decision to allow opponents and malcontents to leave the island contributed to the elimination of political dissent and to achievement of social stability. Furthermore, the migrants abandoned
significant assets, such as housing and land, that were seized by the government to ease somewhat the grave housing deficit. The exodus has also helped to lessen the social costs of the youthful age structure: the migrants between 1959-72 contained a disproportionately large number of children and older persons in Cuba (relative to the 1953 census), and their departure helped to reduce the heavy burdens on education and social security. The predominance of those in working ages among the Mariel emigrants contributed to a reduction in unemployment.

Experts debate the impact of emigration upon birth rates. Economist Mesa-Lago believes that due to the large proportion of very old and young people among the emigrants, "the exodus was a key factor in the decline of population growth rates, and this in turn had a positive impact, at least statistically, in per capita economic growth rates" [Mesa-Lago 1981:43]. However, demographers generally agree that over the long term emigration has not been sufficient to cause any significant difference in fertility over the past 25 years [Mundingo and Landstreet 1981:19; Hollerbach and Diaz-Briquets 1983:88]. Rather than concentrating on the age of the emigrant pools, Hollerbach and Diaz-Briquets examine the sex-ratio (number of males per 100 females) of emigrants for each year since 1959 (see Table 4.7). The low sex ratios during the 1960s indicate that females outnumbered males in this emigration period. (This is partially because the government prevented the
<table>
<thead>
<tr>
<th>Year</th>
<th>Sex Ratios-Domestic</th>
<th>Sex Ratios-All Emigrants</th>
<th>Sex Ratios-Emigrants Aged 15-49</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>105.5</td>
<td>35.6</td>
<td>5.6</td>
</tr>
<tr>
<td>1961</td>
<td>105.5</td>
<td>74.9</td>
<td>58.9</td>
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<tr>
<td>1962</td>
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<td>87.2</td>
<td>78.3</td>
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<tr>
<td>1963</td>
<td>105.4</td>
<td>77.1</td>
<td>64.9</td>
</tr>
<tr>
<td>1964</td>
<td>105.2</td>
<td>96.1</td>
<td>93.8</td>
</tr>
<tr>
<td>1965</td>
<td>105.1</td>
<td>102.7</td>
<td>102.4</td>
</tr>
<tr>
<td>1966</td>
<td>105.2</td>
<td>79.3</td>
<td>66.3</td>
</tr>
<tr>
<td>1967</td>
<td>105.2</td>
<td>87.9</td>
<td>81.8</td>
</tr>
<tr>
<td>1968</td>
<td>105.2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1969</td>
<td>105.2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1970</td>
<td>105.2</td>
<td>85.2</td>
<td>74.3</td>
</tr>
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<td>105.0</td>
<td>110.8</td>
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</tr>
<tr>
<td>1972</td>
<td>104.8</td>
<td>427.9</td>
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<tr>
<td>1974</td>
<td>104.5</td>
<td>480.2</td>
<td>573.6</td>
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<tr>
<td>1975</td>
<td>104.3</td>
<td>438.4</td>
<td>527.9</td>
</tr>
<tr>
<td>1976</td>
<td>104.2</td>
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<tr>
<td>1977</td>
<td>104.0</td>
<td>67.5</td>
<td>59.2</td>
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<td>1978(a)</td>
<td>103.7</td>
<td>108.9</td>
<td>113.6</td>
</tr>
<tr>
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<tr>
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<td>102.3</td>
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<td>--</td>
</tr>
<tr>
<td>1982</td>
<td>101.9</td>
<td>132.3</td>
<td>--</td>
</tr>
</tbody>
</table>

(a) Sex ratios in 1978 and 1979 appearing in the third column pertain to the age group 14-64.

departure of healthy males of military age.) During the early part of the restricted period 1973-79, males outnumbered female emigrants, while during 1976-77 females again dominated. The preponderance of males in the large emigration outflow from Cuba to the United States in 1980 should balance out the sexes among the Cuban-American population. As for the domestic consequences for population growth, the authors conclude:

It could be hypothesized that in the absence of sex-imbalanced emigration, the fertility rise in the 1960s would have been even more pronounced since the imbalance [loss of more men than women] was concentrated in the peak years of family formation. The data available to test this proposition are extremely limited. However, it is unlikely that this imbalance has significantly affected fertility. [Hollerbach and Diaz-Briquets 1983:88]

Not only does it appear that emigration did not significantly contribute to fertility decline, birth rates during the 1960s might have been somewhat lower had the emigres remained, given their characteristically low fertility. In 1970, according to the measures computed from that year's US census data, the fertility level of Cuban women in the United States was about three-quarters that of the total U.S. population and far below that of other Spanish-origin groups. It is possible that this low fertility behavior is attributable to the upwardly mobile nature of the early arrivals from Cuba.

Another source of external migration from Cuba worth
consideration is civilian and military duty overseas. These programs have removed mainly men in the prime marriage ages from the reproductive pool. Some estimates place the total number of Cuban military and civilian personnel abroad in 1980 at fifty to sixty thousand, or about the current population of the province Isla de la Juventud [Diaz-Briquets and Perez 1981]. This has contributed to the decline in the sex ratio since the revolution from 105.2 men for every 100 women in 1970 to 101.9 in 1982 (see Table 4.7). This proportional imbalance between the sexes leads to a situation known as the "marriage squeeze": females have fewer potential spouses, especially within the requisite age groups. This results in higher divorce rates and lower probability of remarriage among women, and, in the case of temporary emigration, there is often a postponement of marriage and the separation of otherwise cohabitating couples. All of these circumstances tend to dampen fertility. It can be anticipated that the sex ratio imbalances for some age groups will further intensify during the 1980s since young males from urban areas were heavily overrepresented in the 1980 Mariel sealift.

Rural/Urban Emigration Differentials

Urban provinces have contributed proportionately much more to the emigrant pool than have rural provinces. A 1962 study of 209 emigres done in Miami indicated that only two percent of the sample had originally come from rural areas.
TABLE 4.8: EMIGRATION FROM CUBA BY PRESENT PROVINCE AND DEGREE OF URBANIZATION (HIGH, MEDIUM AND LOW), 1971-1979

<table>
<thead>
<tr>
<th>Province (a)</th>
<th>% Urban</th>
<th>% of Population</th>
<th>% Contribution to Emigration</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL (HIGH URBAN)</td>
<td>--</td>
<td>26.5</td>
<td>56.8</td>
</tr>
<tr>
<td>Havana</td>
<td>100.0</td>
<td>20.4</td>
<td>50.9</td>
</tr>
<tr>
<td>La Habana</td>
<td>93.8</td>
<td>6.1</td>
<td>5.9</td>
</tr>
<tr>
<td>TOTAL (MEDIUM)</td>
<td>--</td>
<td>27.7</td>
<td>23.1</td>
</tr>
<tr>
<td>Isla de la Juventud</td>
<td>81.8</td>
<td>.6</td>
<td>.3</td>
</tr>
<tr>
<td>Matanzas</td>
<td>76.1</td>
<td>5.8</td>
<td>6.4</td>
</tr>
<tr>
<td>Camaguey</td>
<td>72.9</td>
<td>6.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Cienfuego</td>
<td>72.7</td>
<td>3.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Villa Clara</td>
<td>69.3</td>
<td>7.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Ciego de Avila</td>
<td>67.4</td>
<td>3.3</td>
<td>2.4</td>
</tr>
<tr>
<td>TOTAL (LOW)</td>
<td>--</td>
<td>45.8</td>
<td>20.3</td>
</tr>
<tr>
<td>Sancti Spiritus</td>
<td>63.8</td>
<td>4.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Santiago de Cuba</td>
<td>62.9</td>
<td>9.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Guantanamo</td>
<td>54.7</td>
<td>4.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Holguin</td>
<td>50.9</td>
<td>9.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Las Tunas</td>
<td>50.8</td>
<td>4.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Pinar del Rio</td>
<td>49.7</td>
<td>6.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Granma</td>
<td>9.7</td>
<td>7.5</td>
<td>1.9</td>
</tr>
</tbody>
</table>

(a) Totals do not add due to rounding.

Sources: Adapted from Landstreet [1976:183]; data from CEE, Anuario Demografico [1979:198].
Fully 62 percent of this sample came from Havana, and another 25 percent were from other large cities. This urban predominance among the emigrants has continued since the revolution. To illustrate, Table 4.8 presents emigration by provinces grouped according their degree of urbanization: high, medium and low. Using the present provincial divisions, this shows that the most rural provinces contributed less than a quarter (20.3%) of the emigrants between 1971-1979, yet contain nearly half of the total population (45.8%). Conversely, the two most urban provinces -- La Habana and Ciudad de La Habana (Havana) -- contributed 56.8 percent of all the emigrants, while home to only 26.5 percent of the entire population. Part of this urban dominance among those leaving Cuba may be due to the fact that Havana has frequently been the cite of departure from the island, especially in the early days of the revolution; however, no early figures on internal migration are available to test this theory.

Conclusions

Although external migration has been prevalent in Cuba since the revolution, evidence suggests that it has not significantly contributed to the decline in the birth rate. The continuing decline in the domestic sex ratio (due to the predominance of males in the migrant pool, plus temporary migration due to military and overseas service) contributes to the "marriage squeeze" among women in their
reproductive years. The majority of emigrants come from urban areas, but it is likely that figures on this may be inflated as large cities are a stepping stone between rural regions and the new country.

Population growth results directly from the interaction of births, deaths, and migration. However, the underlying structure of a population, such as the age, sex and racial composition, can also play a significant role in determining the direction and speed in which a population grows.

POPULATION STRUCTURE

The age and sexual composition of a population set the stage for fertility behavior. If most of a country's inhabitants are very young or old, the crude birth rate will be very low, while death rates will be high. Similarly, no matter how many healthy men there are, the birth rate will be depressed without a like number of fecund female partners. Racial composition may also significantly affect the fertility of a group. Race itself is not the determining factor in such a situation: cultural factors may affect members of various races in a unique manner, thus racial differences in fertility behavior are merely an indication of these cultural differences. If a subgroup within a population (say those of African extraction) exhibits higher fertility than the average, birth rates will be noticably greater in areas hosting a
FIGURE 4.8: POPULATION PYRAMID OF CUBA, 1981 and 1953

large concentration of African descendants.

Age Composition

The constricted population pyramid pictured in Figure 4.8 illustrates the proportionately large number of young people in the Cuban population today. In 1981, the aging baby boom generation filled the age groups under 20 years old with 42 percent of the total population -- a four point drop since 1953. The disproportionately large size of the bars at these ages also reflects infant mortality declines. The marked indentation below age five is produced by the very rapid fertility decline in recent years, particularly since the mid-1970s. Above age twenty, the shape of the pyramid is consistent with what might be expected in a country that has experienced a gradual fertility decline to moderate levels by the late 1950s, accompanied by an equally gradual mortality decline.

Sex Composition

Since the early part of this century when men came to work in the expanding agricultural sector, the sexual balance of the Cuban population has favored males (see Table 4.9). However, the sporadic migration waves since the revolution have altered the sex ratio through massive emigration of females, followed by a male dominated exodus, and so on. Sex ratio figures for 1982 suggest the impact of the largely male emigration between the ages of 25-50
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1970</td>
</tr>
<tr>
<td>Total</td>
<td>105.2</td>
</tr>
<tr>
<td>0-4</td>
<td>104.7</td>
</tr>
<tr>
<td>5-9</td>
<td>104.6</td>
</tr>
<tr>
<td>10-14</td>
<td>105.2</td>
</tr>
<tr>
<td>15-19</td>
<td>103.3</td>
</tr>
<tr>
<td>20-24</td>
<td>102.5</td>
</tr>
<tr>
<td>25-29</td>
<td>103.8</td>
</tr>
<tr>
<td>30-34</td>
<td>104.5</td>
</tr>
<tr>
<td>35-39</td>
<td>101.8</td>
</tr>
<tr>
<td>40-44</td>
<td>101.7</td>
</tr>
<tr>
<td>45-49</td>
<td>104.5</td>
</tr>
<tr>
<td>50-54</td>
<td>107.1</td>
</tr>
<tr>
<td>55-59</td>
<td>106.2</td>
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<tr>
<td>60-64</td>
<td>116.4</td>
</tr>
<tr>
<td>65-69</td>
<td>125.8</td>
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<tr>
<td>70-74</td>
<td>128.9</td>
</tr>
<tr>
<td>75-79</td>
<td>107.8</td>
</tr>
<tr>
<td>80-84</td>
<td>101.0</td>
</tr>
</tbody>
</table>

during the Mariel boatlift in 1980. The departure of this group left Cuba with a sex ratio of 101.9 men for every 100 women.

Racial Composition

Racial composition is also a good indicator of reproductive behavior. The major racial groups within Cuba include whites of European extraction, blacks from African slave days, mestizos (in the Cuban case a mixture of black and white), and a small group of Asian descendants. Between 1953 and 1981, the relative proportion of whites declined from 72.8 to 66.0 percentage points; blacks declined 0.4 percentage points; and the Asian population dropped slightly from 0.3 to 0.2 percentage points. Only the mestizo group grew by seven points (from 14.5 to 21.8). Figure 4.9 illustrates the changing proportions of races in Cuba over time.

Rural Population Structure

Age, sex, and racial compositions differ somewhat between urban and rural areas. Figure 4.10 shows the disparity between urban and rural age structure: although both pyramids exhibit the same bulge and constriction of the baby boom and bust, the rural areas are home to a larger portion of the population under twenty. This is reflected in the higher fertility rate in agricultural regions than cities. Conversely, urban areas claim a higher
FIGURE 4.9: RACIAL COMPOSITION OF CUBA, 1981 and 1953

Source: CEE, Censo de Poblacion 1981 [1983:Table 39]
FIGURE 4.10: POPULATION PYRAMID OF URBAN AND RURAL CUBA BY FIVE YEAR AGE GROUP, 1981

Source: CEE, Censo de Poblacion 1981 [1983:Table 20]
Source: CEE, Censo de Poblacion 1981 [1983:Table 19]
percent of those in the older age groups, especially women.

The sex ratios in Figure 4.11 show that from birth males begin to outnumber females in rural areas. This trend accentuates throughout the major reproductive years (15-49); by the age 80 there are about 204 rural men for every 100 women, while only 96.3 men per 100 women in urban regions.

| TABLE 4.10: POPULATION ACCORDING TO SKIN COLOR, URBAN AND RURAL AREAS, 1981 |
|----------------------------------|-------|-------|-------|
| Skin Color | Cuba% | %Urban | %Rural |
| Total      | 100.0 | 69.0   | 31.0   |
| White      | 66.0  | 45.2   | 20.8   |
| Mestizo    | 21.8  | 14.3   | 7.5    |
| Black      | 12.0  | 9.4    | 2.6    |
| Asian      | 0.2   | 0.1    | 0.1    |


Table 4.10 displays the relative proportions of whites, mestizos, Asians and blacks in rural and urban settings according to the 1981 census. In absolute terms the lion's share of all races live in cities simply because the majority of the total population is situated there. However, the proportional distribution of races within both urban and rural sectors is quite similar: although less than a third of all whites live in rural areas, they comprise the largest racial group in both the countryside (67%) and the city (66%). The percentages of the other
Source: CEE, Censo de Población 1981 [1983; Table 43]
three racial groups are also nearly equivalent in both urban and rural areas: a little less than a tenth are black (13.6% in urban, 8.4 in rural) followed by about a quarter mestizo (21% in urban, 24% in rural) and a small percent Asian (.1% in urban, .3% in rural).

Provincial figures in Figure 4.12 reveal that whites comprise over half the population in eleven of the fourteen provinces (present day divisions). Only Granma, Santiago de Cuba, and Guantanamo -- all formerly parts of rural Oriente province -- are predominantly mestizo. The latter two also have a proportionately larger number of black residents than any other province.

**Demographic Consequences of Population Structure**

As discussed in Chapter Three, official demographic concern in Cuba centers mainly on the question of age structure and its economic ramifications. In 1982, the dependency ratio was 86.3, meaning that 54 percent of the population were of working age, while 46 percent were in the dependent ages (under 15 or over 65). From a demographic standpoint, the relatively young age structure is causing the crude birth rate to rise as members of the baby boom move into their reproductive years. However, the downward trend in age-specific fertility rates will help to counter the absolute growth of the Cuban population in the future. At the present growth rate of 1.1 percent the population will double in 64 years.
FIGURE 4.13: LIVE BIRTHS PER WOMAN 15-49, BY RACE AND FIVE YEAR AGE GROUPS

Source: CEE, Censo de Poblacion 1981 [1983:Table 87]
The decreasing stock of men between the ages of twenty and forty is causing the sex ratio to decline. As noted earlier, this can lead to a shortage of suitable mates and depress fertility. The problem is accentuated in the rural areas where there is a traditional shortage of women. But as this is largely a problem among the older age groups, the effect on fertility should be minimal.

By far the most interesting consequence of the Cuban population structure is the effect of racial composition on fertility. Figure 4.13 presents the number of live births per woman according to race and age group. Mestizo women exhibit the highest completed fertility among the four racial groups, having an average of 4.48 surviving children by the end of their childbearing years. Mestizo women have .35 more children than black women, 1.04 more than white, and .66 more than Asian women. Throughout their fertile years, white women retain the lowest fertility, while the mestizos always have the highest; the Asians drop below the black figure at age forty.

It is not possible here to separate all the social and economic influences affecting birth rates in order to recognize the scope and degree of its influence upon fertility. However, there is an implicit connection between racial composition of a group and its fertility behavior: in a province such as Guantanamo (which hosts a large proportion of mestizos) birth rates should be naturally stimulated by the high mestizo fertility. Likewise, in
areas with a majority of whites (such as Villa Clara), birth rates can be expected to be negatively affected by the relatively low white fertility. Again, it should be noted that fertility tends to differ between races due to the varying effects of cultural factors on a certain group, not due to any inherent biological difference.

Conclusions

Age, sex and racial composition forms the passive framework for fertility behavior. Young people dominate Cuba's population structure, with a slightly larger number of females than males in the reproductive ages. Whites comprise the majority race, followed by mestizos, blacks and a small group of Asians. The mestizos have the highest fertility and are the majority racial group in three of the most rural provinces. The emergence of the baby boomers into the reproductive pool and the growing number of mestizos in the population, especially the rural areas, can be expected to act as a stimulant on birth rates in the future.

Nuptiality

I don't want to marry until I'm at least 24 and have got my career properly started. And then I wouldn't want more than two children, or I couldn't work or study. -- Comment on marriage by Tania Suarez, 18 year old student [Harrison 1980:7].

Nuptiality refers to factors affecting marital
fertility, including the average age at first marriage, the type of union and the dissolution of unions (divorce and widowhood). The nuptial characteristics of a population describes the number of people in union, or the group "at risk" of conceiving.

Major Trends

Marital Status

Figure 4.14 displays the conjugal status of Cubans in 1953 and 1981: of the seven million persons over 14 years old in 1981, some 41.5 percent were married; 20.4 percent were in a consensual union; 28.5 percent were single; 5.1 percent were divorced; and 4.5 percent were widowed. These figures indicate an overall increase in the proportions married since 1953 (+5.2%), in consensual unions (+1.3%), and divorces (+4.0%). Only the widowed and single categories declined (-0.4% and -10.1 respectively.)

Common law marriages have always been popular in Cuba, especially in isolated rural regions. After 1959, the new government began a campaign called "Operacion Familia" to legalize these consensual unions. Laws were passed to protect the rights of children born in these unions, while the marriage process was simplified and made much less expensive. Despite these changes consensual unions remain popular in Cuba as in much of Latin America, although they are frequently included with legal unions in census data. As with the fertility and mortality data, these official
efforts to legalize all unions create a heap in the number of marriages recorded during the years 1960-1 and 1965 (years of government pressure in this area). In reality many of these couples were already living together although statistically recorded as single. To sort this out, Table 4.11 presents separate marriage rates for legal and consensual unions for the years 1955-1980.


Note: "Married" category includes separated couples. Source: CEE, Censo de Poblacion 1981 [1983:Table 33]

Figures for marriages excluding all legalized consensual unions confirm that there has been a real increase in the total marriage rate, especially in the early part of the 1960s and again at the beginning of the 1970s. This second surge corresponds not only with the temporary increase in fertility during 1970-1971, but also is concommitant with a period of heavy emigration. People
<table>
<thead>
<tr>
<th>Year</th>
<th>Total Marriage Rate (a)</th>
<th>Regular Marriage Rate (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>4.4</td>
<td>--</td>
</tr>
<tr>
<td>1956</td>
<td>4.4</td>
<td>--</td>
</tr>
<tr>
<td>1957</td>
<td>4.6</td>
<td>--</td>
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<td>1961(c)</td>
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<td>1968</td>
<td>10.2</td>
<td>9.2</td>
</tr>
<tr>
<td>1969</td>
<td>10.2</td>
<td>9.7</td>
</tr>
<tr>
<td>1970</td>
<td>13.4</td>
<td>10.7</td>
</tr>
<tr>
<td>1971</td>
<td>13.0</td>
<td>11.3</td>
</tr>
<tr>
<td>1972</td>
<td>8.8</td>
<td>7.7</td>
</tr>
<tr>
<td>1973</td>
<td>7.0</td>
<td>6.1</td>
</tr>
<tr>
<td>1974</td>
<td>7.3</td>
<td>--</td>
</tr>
<tr>
<td>1975</td>
<td>7.0</td>
<td>--</td>
</tr>
<tr>
<td>1976</td>
<td>6.5</td>
<td>--</td>
</tr>
<tr>
<td>1977</td>
<td>6.5</td>
<td>--</td>
</tr>
<tr>
<td>1978</td>
<td>6.2</td>
<td>--</td>
</tr>
<tr>
<td>1979</td>
<td>6.7</td>
<td>--</td>
</tr>
<tr>
<td>1980</td>
<td>7.0</td>
<td>--</td>
</tr>
<tr>
<td>1981</td>
<td>7.5</td>
<td>--</td>
</tr>
<tr>
<td>1982</td>
<td>8.2</td>
<td>--</td>
</tr>
</tbody>
</table>

(a) Number of marriages per 1000 mid-year population. Figures include legal ordinary marriages and formalized consensual unions.

(b) Number of marriages, excluding formalization of consensual unions, per 1000 mid-year population.

(c) Concerted governmental efforts to promote the legal formalization of consensual unions during these years.

leaving the country opened up scarce housing, the lack of which is a main inhibiting factor on the decision to marry. The Mariel exodus opened up even more housing and is a probable contributor to the upward trend in the marriage rate since 1980. With the large cohort of baby boomers entering the marriageable ages it is likely that any future migration waves will rekindle this cycle of emigration to open housing to marriage to births.

**Age at Marriage**

Age at first marriage has a significant impact on marital fertility: if a young woman begins her reproductive life at sixteen while her sister begins at twenty-six, the younger one will have ten more years than her older sister in which to bear children. Since 1953, the mean age at marriage has dropped for both men and women: the male age has diminished from 26 to 23.9; the female age dropped from 22 to 20.2 within the same period. Specific figures for marriage age have not been published for the 1980s.

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
<th>1970</th>
<th>1979</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>26.0</td>
<td>23.4</td>
<td>23.9</td>
</tr>
<tr>
<td>Female</td>
<td>22.0</td>
<td>19.5</td>
<td>20.2</td>
</tr>
</tbody>
</table>

Source: Hollerbach and Diaz-Briquets [1983:60]
A suggested reason for this decline in marriage age is "the redistribution of income, a decrease in the cost of living..., and increased economic security due to higher employment rates, which reduce the demand for economic self sufficiency prior to marriage." [Hollerbach and Diaz-Briquets 1983:61] The expansion of secondary education, the urban housing shortage, the "marriage squeeze", and the increased availability of contraceptives all contributed to the small degree of increase in age at marriage between 1970 and 1979.

Divorce

Divorce in Cuba has not been associated with the extreme disrepute that exists in other Latin American countries, especially with regard to men. Under the divorce statute of the Family Code, enacted in 1975, either party may take action to obtain a divorce through judicial decree on relatively unrestricted grounds, that is, "when the marriage has lost its meaning for the partners and their children, and thus for society as a whole" [Council of Ministers 1975:12]. In addition to this legal right to divorce, women are now more financially and emotionally equipped to pursue such a course: childcare is available, along with job opportunities for women. But perhaps just as important is the lack of social stigma attached to female divorcees in Cuba -- something new since 1959.
An interesting aspect of Cubans' conjugal status has been the increase in the dissolution of marriages since the early 1950s. The divorce rate rose from a prerevolutionary rate of 1.1 per 1000 population over 14 to a peak rate of 3.3 in 1971-72. As of 1981, the adult divorce rate was 5.1, with the proportionate majority of divorces occurring among city dwellers [CEE 1983:Table 33].

Rural Nuptiality

Table 4.13 illustrates the nuptial status of both city and country inhabitants in 1953, 1970, and 1981. Although the proportion of formally married couples is consistently higher in urban than rural areas, joint figures for consensual and formal unions show that by 1970 a larger proportion of people in rural areas were in unions; the

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>40.3</td>
<td>46.1</td>
<td>45.6</td>
<td>29.8</td>
<td>30.3</td>
<td>31.6</td>
</tr>
<tr>
<td>Consensual</td>
<td>12.9</td>
<td>15.0</td>
<td>14.8</td>
<td>29.1</td>
<td>32.2</td>
<td>33.9</td>
</tr>
<tr>
<td>(Both)</td>
<td>(53.2)</td>
<td>(61.1)</td>
<td>(60.4)</td>
<td>(58.9)</td>
<td>(62.5)</td>
<td>(65.5)</td>
</tr>
<tr>
<td>Single</td>
<td>39.4</td>
<td>29.4</td>
<td>28.4</td>
<td>37.3</td>
<td>32.9</td>
<td>28.6</td>
</tr>
<tr>
<td>Divorced</td>
<td>1.6</td>
<td>4.3</td>
<td>6.1</td>
<td>0.4</td>
<td>1.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Widowed</td>
<td>5.8</td>
<td>5.2</td>
<td>5.1</td>
<td>3.4</td>
<td>2.9</td>
<td>3.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: CEE, Censo de Poblacion 1981 [1983:Table 33]
joint figure for urban areas has decreased. This rural bias is in part due to the traditional popularity of consensual unions in remote agricultural regions (the Cuban census enigmatically attributes this to "social factors in rural life" [CEE 1983:XCVIII]).

The proportions of single persons in the rural and urban populations are relatively equal for all three census years. By 1981, over a quarter of all rural dwellers were single, while two-thirds lived in union. However, the percent divorced becomes much higher in urban regions over time. For example, the relative proportions of urban divorcees rose from 1.6 percent of the urban population 14 and older in 1981 (an increase of 4.5 percentage points); meanwhile the percent of rural divorcees only rose 2.3 percentage points, from 0.4 percent in 1953 to 2.7 percent in 1981. The percentage of widowers has declined in both regions since 1953; the percentages of urban widowers are consistently about one and a half times greater than the percent figures for rural dwellers for both census years. This can be explained in part by the higher life expectancy of women -- the majority of whom live in cities.

Demographic Consequences of Nuptiality

As with the connection between marriage rates and births, age at union has a clear relationship to fertility trends. The growth in numbers of women marrying in the
FIGURE 4.15: CRUDE TOTAL MARRIAGE RATE* AND BIRTH RATE, CUBA 1955-1982

*Number of marriages per 1000 mid year population.
15-19 age group underlies the trend toward earlier childbearing and an increase in age-specific fertility recorded among women age 15-19 between the late 1950s and early 1970s. The subsequent decline in fertility during the latter part of the decade corresponds to a decline in early marriages (see Figure 4.15); the recent increases in fertility also follow the pattern of increases in the total marriage rate since 1980.

The 1979 National Demographic Survey found that within each age and marital status group, women in rural areas have higher fertility than their urban counterparts. The total fertility rates depicted in Figure 4.16 confirm this [7].

Women in consensual unions have greater fertility than their formally married counterparts. This higher fertility could be in part due to the fact that Cuban women begin consensual unions at a younger age than legal unions, although informal relationships are most popular among older women. The prolific nature of these consensual unions cannot be attributed to their informal character alone. The relatively low levels of female education in the countryside appear to be the most important factor contributing to the rural prevalence of these high fertility unions [Hollerbach and Diaz-Briquets 1983:70]. Whatever the reason, rural fertility rates are positively affected by the presence of these common law marriages.

Despite the growing numbers of divorces, Hollerbach
FIGURE 4.16: TOTAL FERTILITY RATES, URBAN AND RURAL CUBA
1965-1977

Source: Hollerbach and Diaz-Briquets [1983: Table 11]
and Diaz-Briquets conclude that "although there are no published data available on parity of couples at the time of divorce, it appears that the rising divorce rate has not been an important factor in fertility decline" [1983:79]. This is likely attributable to high instances of remarriage and age at divorce.

Conclusions

The nuptial state of Cuba since the revolution is one of growing marriage rates. Although the total marriage rate is rising, couples are exhibiting steadily lower fertility rates. This is apparently not related to the increasing divorce rate. Total fertility and crude birth rates show that women are having fewer children in both the city and the countryside. What are the social and economic changes that have led Cuban women to have nearly two fewer children now than in 1955? The next chapter investigates the socio-economic factors affecting women's lives that have led to lower fertility.
NOTES TO CHAPTER FOUR


[3] This figure rivals the 1970 United States census coverage of 97.8 percent of the population at large [U.S. Bureau of the Census 1983:1].


[5] These reforms included the massive redistribution of income, increased employment, rent control, food subsidies, agricultural reforms and free/subsidized medical and educational services.

[6] From Anuario Estadistico, [1982:59]: Urban populations are defined according to the following characteristics (definition used for the Census of Population, 1981).
   a) All places inhabited with a resident population of 2000 or more persons [2500 in the U.S.];
   b) All places inhabited by a resident population between 500 and 2000 persons that have public lighting and three or more of the following characteristics:
      1) Public water supply
      2) Paved streets
      3) Sewer system
      4) Medical services
      5) Educational facility
   c) All places inhabited by 200-500 persons exhibiting the following six characteristics: public lighting, running water, paved streets, waste disposal system, medical services, and an educational center.

CHAPTER FIVE

THE SOCIO-ECONOMIC DETERMINANTS OF CUBAN FERTILITY

INTRODUCTION

The previous chapter examined the demographic trends in Cuba before and after the socialist revolution. This chapter looks behind these quantitative descriptions of demographic change and focuses on their social, economic and political causes. The main emphasis of this investigation is upon changes in the lives of rural women since the revolution.

Although there has been a steady secular decline in natural increase since the turn of the century, it is difficult to trace this decline to its precise sources. In the most comprehensive study to date on the determinants of Cuban fertility, Paula Hollerbach and Sergio Diaz-Briquets admit that the factors influencing Cuba's fertility decline are difficult to disentangle. "Although empirical data on various government policies and socioeconomic determinants are abundant, direct evidence linking these variables and fertility is generally quite limited, and inferences must be drawn from the available data" [1983:10].

Has the institution of socialism enhanced or hampered the decline in the Cuban crude birth rate from 28.3 in 1953 to 16.3 in 1982? No matter what political base a nation stands upon, it is evident that certain socio-economic changes significantly depress fertility, especially among
rural dwellers in developing countries. Chief among these are:

1) Improved public health, especially among infants.

2) Availability of cheap contraceptives and safe abortion.

3) Improved educational opportunities, especially for women and children.

4) Increased monetary employment of women (and restrictions on child labor).

5) Legislation promoting all of the above, and the legal equality of the sexes.

All of these factors tend to do the same thing, that is to raise the status of women. To improve female status in a community, women must have some degree of financial independence (outside of their family/husbands) while earning social respect through means other than child rearing. "By far the most far-reaching social change affecting fertility has been the transformation in the situation of [Cuban] women. Though they are still a long way from achieving full equality, they have become much more integrated into work and social activity, much less confined to the roles of mother and housewife" [Harrison 1980:8].

The following discussions assess the status of Cuban women today as a result of socio-economic changes (i.e. health, education, employment, housing, social security, and religion), and to what extent these changes are
attributable to the socialist nature of the Cuban regime.

HEALTH CARE

Health Before 1959

Statistics on health coverage indicate that the Cuban health network was relatively comprehensive before the revolution; that is, it served a large number of people. However, this assessment ignores the internal distribution of facilities and health professionals within Cuba. The Cuban system exhibited a preference for heavily populated urban areas over rural ones, due in part to the profit motivation of private health care. For example, although in 1957 there was one doctor for every 998 persons (the second highest ratio in Latin America), 67 percent of the doctors resided and practiced in Havana. When they did venture out of the city it was usually to the largest communities in the countryside. Likewise, in 1958 there was a total of 88 hospitals in Cuba providing 3.8 beds for every 1000 persons, however only one was located in a rural region, providing 10 beds [Valdes 1983:33]. As a result of this rural/urban disparity the health of rural dwellers, especially the poor ones, was far below that of the city inhabitants.

Changes Since the Revolution

The changes in public health after the revolution have already been mentioned with regard to the consequent
fluctuations in morbidity and mortality. To summarize briefly, three major factors contributed to a rise in mortality rates during the early years of the regime: the economic embargo (which prevented the flow of medicines), the emigration of large numbers of doctors, and improved death registration.

However, the gradual nationalization of the medical system has led to an improvement in health statistics throughout the country and especially the rural regions. This is can be attributed to the government's ideological and financial commitment to providing services (a "biological right" to health is guaranteed in the 1976 Constitution). This dedication to equal access to health care has led to the extension of health services into the remote countryside, along with the provision of treatment and medicine to the public at no direct cost, and to improvements in nutrition and (to a lesser extent) sanitation.

Expansion of Rural Health Services

A policy of regional equalization of services gave highest priority to the rural and depressed areas of the country. Before the revolution about 33 percent of all the doctors lived outside the capital, but in 1978 the situation reversed: 36 percent of all physicians lived in Havana while 64 percent could be found in the rest of the country [Valdes 1983:35]. In 1982 there were 326 hospitals,
an increase of 312 percent; 117 of these were located in rural areas, or 35.8 percent of the total. Meanwhile there were 4.7 beds per 1000 persons nationwide (an increase of 65.3 percent since 1958). The government is very proud of the doctor:patient ratio -- 1:600 in 1981 (the Chinese figure is 1:2220; 1:520 in the US [IR 1984]). In fact, there are now sufficient numbers of Cuban doctors to spare them for work abroad [Valdes 1983:35].

Despite the existence of hospital services in each of the fourteen provinces, the health service system has been increasingly reoriented away from the hospital to the community, through the establishment of local polyclinics -- "the very center of the Cuban health system" [Landstreet and Mundingo 1980:138]. In addition to the network of local, regional, provincial and national medical facilities, there are visiting doctors who travel about the mountainous and other remote areas on monthly visits in portable clinics or on horseback [Naunton 1983].

Financial Commitment

In a recent statement, the Cuban Vice Minister of Health, Abelardo Ramirez, noted that "the Cuban health care budget in 1959 was $3.00 dollars for each Cuban. By 1982, it was $60.00 per capita, a total of 600 million for the year" [Naunton 1983]. These figures do not necessarily reflect a net gain in health expenditures per capita, since private spending declined at the same time as public
spending grew. However, public health expenditures are better distributed among the entire population because the system is free, more accessible, and therefore available to everyone (and not just urbanites with sufficient funds) [1].

**Food Rationing and Subsidies**

The government instituted a system of food rationing in 1962, to compensate for a food shortage in an equitable fashion. Rationing continues today, although it is now considered more of a basic right to subsidized foods than a basic need. In fact, many foods are available both on and off the ration (at a higher price). Through this system of rationing and price subsidies the government tries to improve the poor nutritional habits of the average Cuban [Benjamin et al. 1984:Ch. 3].

**Public Sanitation**

Clean and potable water is essential for a healthy life. The many rivers of Cuba are largely contaminated with industrial and agricultural wastes. This has led to the contamination of many bays and coastlines. Although legislation has been passed in the last few years to deal with the problem, there has been little improvement. Despite the fact that nearly all piped water is treated with chlorine, the Ministry of Public Health urges the public to boil all the water that they use. The system has
not been upgraded or well maintained so that in 1980 about 50 percent of the water was lost from leaks, resulting in water shortages and contamination [Valdes 1983:47].

TABLE 5.1: HOUSEHOLDS ACCORDING TO WATER CONDUCTION AND URBAN/ RURAL LOCATION, 1981

<table>
<thead>
<tr>
<th>Location</th>
<th>%Piped Water</th>
<th>% Conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>Cuba</td>
<td>100.0</td>
<td>74.1</td>
</tr>
<tr>
<td>Urban</td>
<td>100.0</td>
<td>90.3</td>
</tr>
<tr>
<td>Rural</td>
<td>100.0</td>
<td>36.0</td>
</tr>
</tbody>
</table>

Source: Censo de Poblacion 1981 [1983:CCXLVIII]

In 1953 more than three quarters of all the rural families in Cuba obtained their water from rivers, wells or springs, many of which were contaminated. Only 6.6 percent of the people in the countryside enjoyed inside piped water, although the national average was 55 percent (79.5 percent in the cities) [Valdes 1983:46]. By 1981 the situation had deteriorated slightly in most regions: the 1981 Census shows 81 percent of the rural families received water from rivers, wells, or springs. Only 52.8 percent of all Cubans had inside piped water (a decline of 2.2 percentage points); the percentage in the cities declined nearly ten points to 69.6; only the rural figure increased to 13.0 percent (see Table 5.). However, there have been slight improvements in the aggregate figures for piped
water for both in and outside the house: between 1970 and 1981 the national figure for households supplied with piped water increased from 66.7 to 74.1 percent; likewise, the urban households experienced an increase from 88.2 to 90.3 percent, while the rural figure grew from 26.7 to 36.0 percent [CEE 1983:CCXLVIII].

Human waste disposal is another problem. According to the 1981 housing census only 45 percent of all households had water toilet facilities (61 percent in the urban areas and 7 percent in the rural ones), while another 45.8 percent had latrines and 9 percent had no facilities at all. In other words, a little over a half of all Cuban households had latrines or nothing whatsoever with which to dispose of human waste (93 percent in the countryside). As with the water supply, limited government resources have priority use elsewhere [CEE 1983:CCXLIX].

Demographic Consequences

How do these changes in public health affect the lives of women and their fertility?

First of all, prenatal care has improved dramatically. Expectant mothers have access to prenatal and child care information through the network of polyclinics. The government has established "hogares maternos" (maternity homes) where women from remote areas can go during late pregnancy and receive adequate medical care. The many mass organizations which accompanied the formation of the Castro
regime have incorporated the help of women in the providing better health care. The Federation of Cuban Women (FMC), among other mass organizations, plays an important role in disseminating hygenic and nutritional information to women outside of the mainstream, while comprising the ranks of vaccination drives [Dominguez 1972:58-60]. In the mid-sixties three out of every four babies were born in hospitals; by 1974, hospital deliveries had reached 98 percent. Pregnant women receive special diets and vitamin supplements as part of their food ration. Undoubtedly the improved diets of the formerly poorest Cubans has increased their fecundity [Mundingo and Landstreet 1981:24].

The extensive decrease in infant mortality can be largely attributed to the increased availability of basic health care to all sectors of society (rural/urban, rich/poor). In the last twenty-five years Cubans have been vaccinated for various communicable diseases -- even in the most remote regions of the countryside. The small improvements in water and sewage systems are also important steps in the eradication of the greatest killer of infants in developing countries: gastroenteritis. Although initially increases in infant survival may spur birth rates, within a generation it becomes apparent that families are remaining intact and that it is not necessary for women to bear "extra" children [Huston 1979]. Thus decreased infant mortality leads to lower birth rates.
BIRTH CONTROL

Perhaps the single most important demographic consequence of the nationalized health care system has been the incorporation of birth control into general maternal and child care [2]. Although Cuba has no explicit birth control policy, it is the only country in Latin America with legal abortion, as well as inexpensive and widely available contraceptives.

The official reasons stated by the government for the provision of extensive contraceptive and abortion services include:

1) Every person has the right to control pregnancies and plan their family;
2) Bearing large numbers of children may be harmful to women's health;
3) There should be equal access to services for the whole population;
4) These services are necessary for the sociocultural emancipation of women; and
5) These services facilitate the incorporation of women into the labor force [Mundingo and Landstreet 1981:24].

Contraception

The shortage of contraceptives and abortion following the revolution is cited as a contributor to the baby boom of the 1960s. However, this shortage did not last long. With financial aid from the UN Fund for Population Activities (UNFPA), all birth control methods were
available through the growing medical network by the mid-1970s. By 1980, the increased availability of government supplied contraceptives and concerted efforts to educate women about fertility regulation resulted in reduced reliance on less effective methods, higher contraceptive prevalence and greater access to contraceptive services, especially in the less developed provinces [Hollerbach and Díaz-Briquets 1984:12].

The main birth control methods available in Cuba are female sterilization, the IUD and oral contraception. Pills, condoms and spermicidal tablets, jellies and creams are sold in government pharmacies at low cost, and all other methods, including sterilization, are free. Vasectomies are performed by urologists in Havana. However, as in other Latin American countries, the method is not popular in Cuba; the existence of female sterilization as an alternative, and attitudes of machismo, are generally cited as factors responsible for nonuse of vasectomy [Hollerbach 1980:105]. The IUD is probably the most preferred method of contraception; after the blockade Cubans began making their own IUDs from fishing net nylon -- many of these were still in place 14 years later. However the Pill has been rapidly gaining ground since Cuba began manufacturing it with imported raw materials in the mid-1970s. The Pill can also be bought without prescription [Harrison 1980:9]. Although data are unavailable, it is believed that oral contraception is the most frequently
used method among adolescents. Condoms are recommended for adolescent males and in situations of irregular coitus; however they are reportedly unpopular and frequently difficult to find [Hollerbach 1980:104].

No composite figures are kept on contraceptive use in Cuba. However two small scale studies give some indication of contraceptive activity since the early 1970s. A 1971 study conducted in a sector of Havana, an intermediate sized city, and among an isolated rural population in a mountainous area, showed that between 90 and 100 percent of the women in age groups between 20-45 in the three locations knew of the IUD. Sterilization and the condom were the next two most widely known methods, and only in the remote rural location did the proportion knowing these methods fall much below the 90 percent level. The same study showed that about 20 to 35 percent of the women in the 20-35 year age groups were using the IUD at the time of the study, with lesser proportions relying on other methods, primarily condoms and sterilization [Landstreet and Mundingo 1980:137]. A 1980 survey of contraceptive use among urban women living in union near Havana showed that 68 percent were current users, and 60 percent of these were protected by the three most effective methods: the IUD (37 percent), sterilization (16 percent) and the Pill (7 percent) [Hollerbach and Diaz-Briquets 1984:19].

Breastfeeding is a natural form of birth control which can inhibit ovulation after childbirth. Data indicate that
breastfeeding is nearly universal in Cuba: only 4.6 percent of the children had never been breastfed. However, the median age at weaning is rather young -- two to three months (this corresponds to the youngest age at which babies may attend day care) [Maynard 1979:16]. Hollerbach and Diaz-Briquets conclude that "although a direct measure of the mean duration of postpartum infecundability is not available, by extrapolating the truncated breastfeeding data, its value can be calculated as about six months" [1984:19].

Abortion

At the time of the revolution abortion was illegal but easily obtainable in Cuba. As a matter of fact, Havana was a haven for wealthy American women who wished to discreetly terminate their pregnancies. After 1959 the situation reversed: the law was enforced, many of the doctors who perfomed abortions left the island, and the specialized clinics were shut down to "promote the normalization and moralization effort necessary to introduce a new social order." By 1964, however, Cuba adopted the World Health Organization's definition of health, "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The liberal interpretation of this definition required legal abortions as a basic component of female well-being. By the 1970s, legal abortions could be obtained by almost any woman who
(a) "Abortion rate" is the number of legal abortions per 1000 women aged 15-44.
(b) "Abortion ratio" is the number of legal abortions per 1000 pregnancies (abortions plus live births).

so desired. The operation is generally performed when gestation is 12 weeks or less; the consent of the husband a/o parents is not necessary for women over 18 (and not always required for those under 18).

The abortion ratio, or the legal abortions per 1000 pregnancies (abortions plus live births), has risen steadily from 103 per 1000 in 1968 to 423 in 1981 (see Figure 5.1). Only four countries have reported higher abortion ratios than Cuba's during the past two decades: Bulgaria, 495 in 1979; Japan, 547 in 1975; Romania, 498 in 1979; and the USSR, 700 in 1970 [Tietze 1981:Table 2]. The rate of legal abortions, or the legal abortions per 1000 women of reproductive age, reached its high point of 70 per 1000 in 1974 -- again, this is one of the highest figures known outside of eastern Europe and Japan. Expressed as the average number of legal abortions per woman during her lifetime at prevailing incidence levels, the rate dropped from 2.1 abortions per woman in 1974 to 1.4 abortions in 1980. By 1982, the legal abortion rate had increased again to 54 per 1000 women of reproductive age (30.2 in the US), or 1.6 abortions per woman over her entire life [Hollerbach and Diaz-Briquets 1984:18].

Health Risks

The legalization of abortion and the consequent establishment of competent practitioners has undoubtedly lowered the number of deaths due to the operation. Figures
on total abortion related mortality (legal and otherwise) show a steady decline from fifteen deaths per 100,000 live births in 1974 to a low of three deaths per 100,000 live births in 1978. This trend reversed in 1980 when, for no apparent reason, the number of maternal deaths per 100,000 legal abortions rose to nearly eight from a little over one in the preceding year [3]. This increase in deaths due to legal operations pushed the total abortion related mortality rate back up to fifteen per 100,000 live births in the same year. However, in 1981 the downward trend resumed: total abortion mortality dropped to 9.5 per 100,000 live births [Hollerbach and Diaz-Briquets 1984:Table 9].

The Ministry of Health is committed to making contraceptives widely and readily available within the maternal and child health services throughout the entire country. This concern is not only due to a desire to counter the high instance of abortion, but also due to the increased occurrence of premature births in pregnancies following abortions [Mundingo and Landstreet 1981:23; Harrison 1980:9]. However, this lenient approach towards contraceptive distribution has caused some controversy: physicians have become increasingly concerned over the use of oral contraceptives without medical supervision. Although the label includes information about side effects and contraindications, the growing popularity of the Pill in a country of heavy smokers concerns health officials.
However, the majority of women request the Pill following consultation with a physician.

Demographic Consequences

Today even women in remote regions of the country are exposed to contraceptive technology when giving birth [Hollerbach and Diaz-Briquets 1984:12]. The contact between pregnant women and health facilities may be the greatest means through which birth control knowledge is spread. Education on contraception is directed toward males in school sex education, but contraceptive use is generally perceived as the woman's responsibility [Hollerbach 1980:105]. In addition to sex education in grade schools, film shows and talks are regularly given in the waiting rooms of polyclinics. In their study of population policy in Cuba, Axel Mundingo and Barent Landstreet note the significance of this exposure for fertility behavior:

The average number of prenatal visits in Cuba is nine per pregnancy. Undoubtedly, these visits and the hospital delivery itself are factors contributing to increased knowledge about the services the system offers, including contraception, sterilization and abortion. In a very real way, pre-natal and delivery protocols are the most immediate link in the chain of institutional determinants which, as a whole, exercise pressure on individual reproductive behavior, thus depressing fertility levels. [Mundingo and Landstreet 1981:24]

Conclusions

Two conclusions can be drawn regarding the prevalence of contraception and abortion in Cuba. First of all, Figure
FIGURE 5.2: PREGNANCIES BY OUTCOME, 1968, 1974 AND 1982

5.2 shows that in 1982, 41 percent of all known pregnancies were terminated by legal abortion, compared with 36 percent in 1974 and 9 percent in 1968. The substantial and consistent annual increases in the legal abortion ratio indicates that a growing proportion of unwanted pregnancies ended with induced abortion throughout the 1970s until 1981. [Hollerbach and Diaz-Briquets 1984:19]. Secondly, the consistent decline in the rates of abortion since 1974 show that fewer women are terminating pregnancies; coupled with the fertility declines during this period this indicates that there was an increased reliance upon contraception to prevent pregnancy, while there was a growing reliance on abortion as a backup method in case of contraceptive nonuse or failure.

In other words, the decrease in the abortion rate per 1000 women in their reproductive years since 1974 indicates that the reliance on abortion is diminishing due to a decrease in the number of unwanted pregnancies; presumably pregnancies are being avoided through the more extensive and/or better use of more effective contraceptives. However, the abortion ratio continued to rise as fertility dropped precipitously during the decade, indicating that abortion was a more frequent outcome of an unwanted pregnancy.
EDUCATION

Introduction

The expansion of education is recognized as an effective fertility depressant. Female education is of particular interest, as it most directly impacts women's lives and their fertility behavior [Mundingo and Landstreet 1981:21; Hollerbach and Diaz-Briquets 1983:161]. Improvements in Cuban education since 1959, have contributed significantly to the changes in women's social and economic roles, which in turn have influenced their childbearing decisions.

As with health care, the government considers a basic education the right of every Cuban citizen. Education is an integral part of creating the "new socialist man", as well as training for a future labor force. The expansion of education and the reduction of class and sex barriers to education were promoted during the 1960s through the provision of government scholarship aid, the abolition of private schools, the incorporation of rural students into urban schools, and the overall increase in numbers of schools -- especially in rural regions. The most apparent outcome of this expanded educational network has been the almost total eradication of illiteracy, especially among children. Even the most ardent critics of the Cuban scene recognize the improvements in the basic educational system since the early 1960s: "Criticisms of the quality and efficiency of the educational system since 1959 should not
detract from the impressive educational achievements of the revolutionary government compared to the prerevolutionary period" [Dominguez 1978:172].

Changes Since the Revolution

The Cuban educational system has changed significantly during the past twenty-five years. The system is divided into four stages: six years of primary schooling, three of secondary, three of pre-university or vocational, and varying time periods of university training. Schooling is now compulsory until the 9th grade for children, so an elementary education has become the rule rather than the exception [Valdes 1983:67]. "For all intents and purposes elementary schooling is universal in Cuba today" [Valdes 1983:69; Bonachea and Valdes 1972:432; and CEE 1980:148].

Cuba's ideological commitment to education is backed by funds for new schools, materials, teacher training and salaries. After the educational system was nationalized by the government in 1961, the national education budget increased from 79 million pesos in 1957 to 1,340.8 million in 1980, that is $137 pesos per capita and 17 times the 1957 budget [CEE 1980:153]. But these figures do not mean much as comparable information concerning the private education expenditures before 1959 is not available. Thus, statistics for the number of schools, teachers and students at all levels of education are more useful indicators of the overall financial commitment to education. In 1958,
Cuba had 7567 elementary schools, 171 secondary, and 3 public universities; by 1978, there were 13,115 elementary schools, 1038 secondary ones, and 39 centers of higher learning (1982) [Valdes 1983:73]. Similarly, the enrollment in adult education programs jumped from 67 thousand in 1960-1 to a high of 700 thousand in 1976-77 [Mundingo and Landstreet 1981:21]. As more and more of the population received a basic education the number of adult students declined: by 1980-81 total adult enrollment in worker-peasant primary, secondary, technical and language schools dropped to 350 thousand [Valdes 1983:66].

As a result of this financial commitment to education literacy rates have improved greatly. In 1953, 23.6 percent of the population ten years of age or older were illiterate; there were over one million persons who could not read or write. The situation was worse in rural areas where the illiteracy rate was nearly double that of the national average, 41.7 percent, while the urban areas claimed only 11.6 percent [Valdes 1983:59]. However, by 1980 Cuba had an adult literacy rate of 96 percent, and enrollment in primary and secondary schools jumped from 50.9 percent of children 6-16 years old in 1953, to 92.4 percent in 1981 (94.8 percent in urban areas; 88.0 percent in rural) [CEE 1983:CLXXXVI; Mundingo and Landstreet 1981:21].

Despite the overall success of the system, problems remain. The quality of instruction and facilities, such as
irregular supplies of educational tools and poor building maintenance, are two major problems. After the revolution there was a vast increase in the number of people desiring an education, but at the same time there was a shortage of teachers to go around (the student-teacher ratio reached a high of 44.7 in 1959-1960) [Perez 1977:45]. In response to this teacher shortage, qualifications, especially for primary school teachers, were greatly reduced — many of these new teachers had not even completed the sixth grade. However, over the years both the quantity and quality of teachers has improved: by 1978, the number of elementary teachers had grown 3.5 times the prerevolutionary level, while secondary and university teacher increased by 13.6 and 9.6 times respectively. By 1980, all primary teachers had degrees. [Valdes 1983:74].

The legacy of poor education lingers: census figures for 1981 show that only 60 percent of the population over six years old had at least a sixth grade education [4]. Although this figure is a three fold increase from the 1953 figure, it is well below the government's goal of a completed primary education for all adults by 1980. Also disparities remain between levels of education in the countryside and the city: in 1981, 67 percent of the urban population had completed at least six years of schooling, compared to only 48 percent of the rural inhabitants [CEE 1983:CLXXVIII].
Women and Education

What do all these changes in education mean for women? Prior to 1959, Cubans received little education, and women received less. In 1953, more than one out of five women could neither read nor write; education was least accessible in rural areas where almost two out of five women were illiterate. One third of ten-year old girls were not in school, while only one in one hundred women over twenty-five had any university education.

The government confronted the problem of uneducated and unskilled adults early on in the new regime. For both ideological and economic reasons Cuba required that women join the revolutionary effort; several educational programs were created to incorporate women into the workforce and to free them from the old belief that "a woman's place is in the house, a man's in the street."

First, as part of the adult education campaign, the government established schools for peasant women ("escuelas campesinas"). Nearly one thousand country women -- including women who had never been out of the mountains and had never seen a school -- were brought to Havana for several months to learn basic reading and writing skills, along with courses on dress making, cooking and hygiene. For the next six years (1961-67) over 14,000 women participated in these "remedial" courses. While the backlog of uneducated women was slowly shrinking, new schools were being built in the countryside. By 1975, the program had
changed its focus to include a regular educational program for the first through tenth grades, in addition to courses in art, sewing, and music [Steffens 1975:28; Hageman 1975:28]. There were similar schools for the many prostitutes and domestics who populated Havana. The Schools for the Advancement of Domestic Servants retrained former maids to be secretaries, administrative assistants and bus drivers. Prostitutes were invited to attend rehabilitation schools and were found jobs in factories (usually textile or food processing).

Another government initiated program which greatly affected all Cubans, including women, was the national campaign against illiteracy. In the spring of 1961, thousands of school children streamed into the countryside to live with peasant families and teach them to read and write. Fifty-two percent of these "brigadistas" were young ladies from urban families. For these cloistered girls the change to an unchaperoned life in a new environment was enormous -- a situation "unprecedented in the Cuban normative structure" [Perez 1977:42]. And they were successful: by the year's end the illiteracy rate of adults had declined from 23.6 percent to 3.9 percent. Although women constituted slightly less than half of the population at the time, 56 percent of those who learned to read and write were women [Murray 1979:67]. Perez goes so far as to state that this influx of marriageable females into rural areas (with a traditional shortage of women) was a major
contributor to the increase in the marriage rate and consequent surge in births during the early 1960s [Perez 1977:44].

<table>
<thead>
<tr>
<th>Education (a)</th>
<th>Total %</th>
<th>Urban %</th>
<th>Rural %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>53.3%</td>
<td>43.9%</td>
<td>72.6%</td>
</tr>
<tr>
<td>0-3</td>
<td>15.5</td>
<td>10.6</td>
<td>25.5</td>
</tr>
<tr>
<td>4-5</td>
<td>15.4</td>
<td>12.1</td>
<td>22.2</td>
</tr>
<tr>
<td>6</td>
<td>22.4</td>
<td>21.2</td>
<td>24.9</td>
</tr>
<tr>
<td>Intermediate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1+ years</td>
<td>43.3</td>
<td>51.5</td>
<td>26.9</td>
</tr>
<tr>
<td>University</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1+ years</td>
<td>3.3</td>
<td>4.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

(a) Primary education is divided into 0-3 years, 4-5 years, and 6 years. Intermediate education lasts 6 years and includes basic secondary and pre-university, technical and professional, and teacher preparation.

Source: Adapted from Hollerbach and Diaz-Briquets 1983: Table 56.

Numbers of women in the mainstream of Cuban education grew dramatically after the revolution. By 1970, girls and women composed 49 percent of Cuba's elementary school students, 55 percent of high school students and 40 percent of students in higher education [Berelson and Hageman 1978:367]. However, figures for graduates from higher
education show little incremental growth in the proportion female over the 1970s: in 1981, girls continued to represent 48-54 percent of all graduating students from primary and secondary schools; however the proportion of women at the university level only increased two percentage points (to 42%) [CEE 1983:CLXXXVIII]. Furthermore, Table 5.2 shows that 30.9 percent of the women of reproductive age had not completed primary school in 1979. In rural areas, this figure rises to nearly 50 percent. Forty-three percent of all women had reached but not necessarily completed intermediate education; only about one-quarter of rural women and over half of all urban women had done so.

Course Variation by Sex

All early educational efforts focused at women tended to train them for work consistent with their traditional home and mother roles: dressmaking, cooking and health care. Although this training did not challenge the patterns of sexual division in the labor force, the schools were an early step in that direction.

Reforms at the university level have created an educational system more attuned to national needs. Students have been channeled into priority areas such as education, economics, engineering, agriculture, and health sciences, while emphasis on the humanities has diminished. At all levels education has been made equally accessible to men and women, although ideological and political criteria play
a role in determining admission to universities and technical institutions [5] [Hollerbach and Diaz-Briquets 1983:164].

TABLE 5.3: GRADUATES BY SEX AND LEVEL OF EDUCATION, 1981

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>51.9</td>
<td>48.1</td>
</tr>
<tr>
<td>Secondary</td>
<td>52.7</td>
<td>47.3</td>
</tr>
<tr>
<td>Pre-University</td>
<td>55.6</td>
<td>44.4</td>
</tr>
<tr>
<td>Vocational</td>
<td>64.3</td>
<td>35.7</td>
</tr>
<tr>
<td>Technical</td>
<td>59.9</td>
<td>40.1</td>
</tr>
<tr>
<td>Normal</td>
<td>40.4</td>
<td>59.6</td>
</tr>
<tr>
<td>Superior</td>
<td>58.0</td>
<td>42.0</td>
</tr>
</tbody>
</table>

Source: CEE, Censo de Poblacion 1981 [1983:CLXXXVIII]

Although women now study all fields formerly dominated by men, men are not equally represented in subjects traditionally associated with women. For example, where women represented only 26 percent of medical students in 1962, by 1970 they comprised 50 percent. On the other hand, all those who undertake training as nursery workers are women; and whereas women accounted for 85 percent of education students in 1962, by 1970 they accounted for 90 percent of the total [Murray 1979:66]. Today men compose the lion's share of graduates from technical, vocational and higher education, while women outnumber men two to one in normal intermediate schooling (i.e. unspecialized) [CEE 1983:CLXXXVIII]. However, these course variations by sex appear to be limited to specialized courses: there are no
FIGURE 5.3: TOTAL FERTILITY RATES BY EDUCATIONAL ATTAINMENT
1965-1977

Source: Hollerbach and Diaz-Briquets 1983:168
substantial differences by sex in primary and secondary school graduates (see Table 5.3) [Mundengo and Landstreet 1981:21; CEE 1983:CLXXX]. Referring to the present situation, Nelson Valdes concludes that "Cuban education seems to promote racial and ethnic tolerance, and consciously tries to reduce sexist bias (the latter is a recent development)" [Valdes 1983:79].

Demographic Consequences of Educational Changes

Given the frequency with which fertility is found to be inversely correlated with educational levels internationally, this massive expansion of education in Cuba is a particularly relevant contributor to the country's fertility decline [Mundingo and Landstreet 1981:21]. As Figure 5.3 shows, total fertility rates are much lower among the better educated than among the least educated. Similarly, the provincial figures in Table 5.4 show that fertility is highest among women with 0 to 5 years of education, and in the most rural provinces (Oriente and Pinar del Rio).

Efforts have been made to directly correlate the Cuban fertility decline with increasing educational levels. CELADE and the Cuban government estimated the total fertility rates of women in 1978 as though they retained the level of education recorded in 1964. By comparing the total fertility rate of 1964 with the synthetic rate for 1978 they were able to directly attribute 20 percent of the
reduction in fertility between 1964 and 1974 to increases in the educational level of women. However, as Hollerbach

TABLE 5.4: TOTAL FERTILITY RATES, BY EDUCATIONAL ATTAINMENT AND FORMER PROVINCIAL DIVISION 1964-66 AND 1976-78, CUBA

<table>
<thead>
<tr>
<th>Province</th>
<th>0-3 years</th>
<th>4-5 years</th>
<th>6 years</th>
<th>Intermediate 1+ years</th>
<th>University 1+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinar del Rio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964-66</td>
<td>6.1</td>
<td>4.7</td>
<td>4.3</td>
<td>3.2</td>
<td>--</td>
</tr>
<tr>
<td>1976-78</td>
<td>3.4</td>
<td>3.6</td>
<td>2.6</td>
<td>1.7</td>
<td>--</td>
</tr>
<tr>
<td>La Habana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964-66</td>
<td>5.3</td>
<td>5.1</td>
<td>4.0</td>
<td>2.8</td>
<td>1.8</td>
</tr>
<tr>
<td>1976-78</td>
<td>2.2</td>
<td>3.1</td>
<td>2.3</td>
<td>1.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Matanzas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964-66</td>
<td>5.6</td>
<td>4.4</td>
<td>4.2</td>
<td>3.0</td>
<td>1.5</td>
</tr>
<tr>
<td>1976-78</td>
<td>2.3</td>
<td>2.9</td>
<td>2.0</td>
<td>1.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Las Villas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964-66</td>
<td>5.7</td>
<td>4.9</td>
<td>4.0</td>
<td>2.7</td>
<td>1.6</td>
</tr>
<tr>
<td>1976-78</td>
<td>2.6</td>
<td>3.1</td>
<td>2.2</td>
<td>1.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Camaguey</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1964-66</td>
<td>5.8</td>
<td>4.5</td>
<td>4.3</td>
<td>3.6</td>
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</tr>
<tr>
<td>1976-78</td>
<td>3.4</td>
<td>3.5</td>
<td>2.9</td>
<td>1.9</td>
<td>--</td>
</tr>
<tr>
<td>Oriente</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964-68</td>
<td>6.9</td>
<td>5.6</td>
<td>4.6</td>
<td>3.5</td>
<td>--</td>
</tr>
<tr>
<td>1976-78</td>
<td>3.8</td>
<td>3.6</td>
<td>2.8</td>
<td>2.0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Source: Hollerbach and Diaz-Briquets 1983: Table 60 (from CEE and CELADE data)

points out, 1964 witnessed the highest point of the baby boom, and thus represents an historical anomaly. Certainly part of the 20 percent decline is due to educational improvements; however many other factors came into play in those same years. Without data on total fertility and educational levels of women just prior to the baby boom,
the exact contribution of increased educational attainment to fertility decline cannot be assessed accurately.

Further evidence of the education-fertility nexus lies in the schooling of children. Before the revolution Havana was full of street urchins soliciting money for odd jobs, while poor country children helped in the fields and tended to babies. Today, because school is mandatory until the ninth grade, children are less available as labor and so have a lowered economic value to their family. By 1976, for example, 99 percent of children aged 6-12 attended primary school (78 percent of children 13-16) [Mundingo and Landstreet 1981]. Again it is impossible to discern exactly to what degree this affects fertility, but in a country where money still is important, it can only be a depressing influence [Landstreet 1976:288; Hollerbach 1980:100; Nag 1978; and Cain 1977].

Conclusions

The inverse correlation between educational attainment and fertility has been an important contributor to the decline in Cuban population growth since the revolution. However, education cannot explain away the entire fertility decline. Important consequences of expanded education, especially for women, are the greater employment and income opportunities. Just as the education of children may lower their economic value to a family (at least in the short run), increasing a mother's education will often lead her
to join the work force. The opportunity costs of a non-working woman (i.e. the cost of keeping her in non-pecuniary household work) can be an important determining factor in a family's childbearing decisions.

EMPLOYMENT

This section investigates the evolution of employment in Cuba and the consequences for women and fertility. Several questions will be addressed: first, what role does the Cuban woman play in the national economy? Secondly, what proportion of the labor force do women represent, and in what occupations? Furthermore, what problems do working women confront which cause them to drop out of the work force, and what incentives are offered to keep them employed outside the home? And finally, how does all of this affect the perceived economic value of women and children, especially in rural areas?

Major Trends

Sexual Composition of the Labor Force

The incorporation of women into the Cuban work force has been the subject of much attention from foreign observers, and especially from those interested in the women's liberation movement. Margaret Randall notes the different approaches to the changing roles of women in Cuban society vis-a-vis liberation efforts in the United States. Whereas feminists in the United States must work
from the grass roots level to bring about political and social change, Cuban women already are entitled to equal pay for equal work under the laws of the Republic. Americans must work to change the legal system as well as social conceptions, while Cuban efforts focus upon women's problems as one part of a larger social ill; society as a whole must change and when it does women's particular concerns will be addressed. In Randall's words:

In the US the...social process of women attaining full equality is carried on primarily by those...trying to free themselves...through patchwork social and economic reforms applied to the corpus of the crumbling old order.... In Cuba, the woman's struggle is going on from the opposite end of the social process.... Thus, the social revolution of a society newly mobilized and deliberately reconstructing itself from the ground up...is the context informing the course of women's development and liberation. [Randall 1981:9]

Despite such ardent testimonials in support of the Cuban government's commitment to women's liberation, official efforts to expand the role of women have largely stemmed from economic and political necessity, rather than an ideological desire for sexual equality. It was not until full male employment was achieved and the economy experienced a labor shortage, as it did in the early 1960s, that women were gradually encouraged to enter the labor force [Croll 1981:386; Nazzari 1983:25; Hollerbach and Diaz-Briquets 1983:149; Purcell 1973:262].

Figure 5.4 shows the fluctuations in unemployment and female labor force participation (LFP) since 1968. Between
FIGURE 5.4: FEMALE LABOR FORCE PARTICIPATION AND TOTAL UNEMPLOYMENT, CUBA, 1968-1981
1968 and 1970, and again between 1974 and 1978, there is a strong correlation between declining unemployment and increasing female LFP. However, during the early 1970s and since 1978, these trends have reversed: female LFP increases at the same time that unemployment increases. The first aberration can be attributed to the reduction in labor force size following the sugar harvest of 1970, and the results of efforts to incorporate women into the labor force during that time. Since 1978, the proportion of well-educated women in the population is increasing as the baby boom cohort enters into the working ages. This increase in both the numbers of Cubans in their economically active ages and the number of trained women seeking jobs has forced unemployment to rise at the same time as the level of female labor force participation increases. The predominance of working age males among the Mariel emigrants also contributes to this pattern.

Drop Out Rates

Between 1969 and 1972, in anticipation of the big sugar production push, a goal of incorporating 100,000 women a year into the full-time labor force was established. Although the harvest fell short of the 10 million ton goal, it brought unprecedented numbers of women into the labor force (often replacing men in blue collar positions to free them for more physical labor). However, there was also a high attrition rate, with two out of three
women who entered the labor force returning home soon thereafter [Hollerbach and Diaz-Briquets 1983:150]. For the entire period from 1969 to 1974, it has been estimated that over 700,000 women had to be recruited into the labor force in order to achieve a net gain of just under 200,000 female workers [Bengelsdorf and Hageman 1978:367; Murray 1979:100].

Despite these high drop-out rates, the percentage of women in the labor force increased from 12.6 in 1957, to 18.0 in 1970, and peaked at 31.3 in 1981 (see Table 5.5). By comparison, the 1981 Costa Rican figure for female LFP is 26.4; 43.5 in the US (1982) [Chaney 1984:Table 5.2; Lane 1984:118]. In 1981, approximately 43.3 percent of Cuban women in their economically active ages (17-54) were actually working (compared to 55 percent of males aged 17-59) [CEE 1983:CCIX; CEE 1982:Table II.8] [6].

Trends in Occupational Categories

Although the number of working women has grown since the revolution, the types of jobs most often filled by women has changed little. Domestic service was the major area of employment for working class women before the revolution; teaching or office and shop work were the domain of middle class women. The 1953 census listed 11,500 women as prostitutes, and this is only the official figure [Camarano 1971:49]. Rural women avoided any sort of heavy agricultural tasks, although certain aspects of the
### TABLE 5.5 FEMALE LABOR FORCE PARTICIPATION, 1953-1981

<table>
<thead>
<tr>
<th>Year</th>
<th>% Female in Labor Force</th>
<th>Total Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>13.0</td>
<td>17.2</td>
</tr>
<tr>
<td>1957</td>
<td>12.6</td>
<td>--</td>
</tr>
<tr>
<td>1958</td>
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<td>1959</td>
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<td>1960</td>
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<td>1968</td>
<td>15.8</td>
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<td>1969</td>
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<td>1970</td>
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<td>1971</td>
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<td>22.9</td>
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<td>1973</td>
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<tr>
<td>1980</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1981</td>
<td>31.1</td>
<td>--</td>
</tr>
</tbody>
</table>


sugarcane and tobacco harvest -- namely the selection and stripping of tobacco leaves and the stacking of sugarcane -- were thought to require the "touch of a woman" [MacGaffey and Barnett 1962:142; Ramos 1971:1]. By the eve of the revolution, 70 percent of all employed women were domestic servants, while those who were in industry were still concentrated in textiles, foodstuffs and tobacco [Leiner 1974:8; Murray 1979:61].

Today, although the government encourages women to aspire to professionally or technically rewarding jobs, the profile of female occupations that emerges is still in the areas traditionally associated with women, i.e. teaching, child care, white collar jobs in government and in female oriented industries such as textiles, food, tobacco, etc. [Mundingo and Landstreet 1981:21; Hollerbach and Diaz-Briquets 1983:150]. The 1981 census reveals a tendency for men to dominate among "physical" occupations (88.6%), while women take the majority of jobs involved in food, commerce and services, and are least involved in transportation (see Table 5.6). Women occupy over 50 percent of all "intellectual" occupations, specifically outnumbering men in the areas of medicine, research and scientific investigation; women are least represented in managerial positions [CEE 1983:CCXI].

Problems For Working Women

Why do so many women choose to remain/return home
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent Participation by Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td></td>
</tr>
<tr>
<td>Commerce/Public Nutrition</td>
<td>79.1</td>
</tr>
<tr>
<td>Services</td>
<td>43.6</td>
</tr>
<tr>
<td>Food Industry</td>
<td>54.5</td>
</tr>
<tr>
<td>Agriculture</td>
<td>69.2</td>
</tr>
<tr>
<td>INTELLECTUAL</td>
<td></td>
</tr>
<tr>
<td>Metalurgy</td>
<td>96.8</td>
</tr>
<tr>
<td>Construction</td>
<td>97.4</td>
</tr>
<tr>
<td>Transportation</td>
<td>98.1</td>
</tr>
<tr>
<td>Medicine</td>
<td>48.4</td>
</tr>
<tr>
<td>Research and Scientific Investigation</td>
<td>27.2</td>
</tr>
<tr>
<td>Culture and Art</td>
<td>38.3</td>
</tr>
<tr>
<td>Planning and Control</td>
<td>60.2</td>
</tr>
<tr>
<td>Law</td>
<td>62.3</td>
</tr>
<tr>
<td>Engineering and Technology</td>
<td>69.7</td>
</tr>
<tr>
<td>Direction of State Agencies/</td>
<td>74.7</td>
</tr>
<tr>
<td>Mass Political Organizations</td>
<td>80.0</td>
</tr>
<tr>
<td>Management</td>
<td>91.3</td>
</tr>
</tbody>
</table>

Source: CEE, Censo de Poblacion 1981:CCXI-CCXII
despite the growing level of education and employment opportunities for women in Cuban society? There is no single underlying cause of the high attrition rate among working women. Rather, various social, economic and political forces combine to make life difficult for the mother-worker-revolutionary in Cuba today. These negative factors include material constraints, discrimination in the workplace, poor political representation, and traditional cultural attitudes.

**Material Constraints**

The lack of sufficient child care centers, home appliances, laundries, prepared foods, and domestic service requires that much free time be spent in domestic chores. The traditional foods of Cubans, black beans and rice, take many hours of preparation. Priorities, especially in the early years of the revolution, were on building roads and schools, not on providing refrigerators, pressure cookers and restaurants. Thus there remains a shortage of convenience items that would greatly reduce domestic obligations. Recent time use studies show that women do the majority of all household and childcare tasks; working women do less than fulltime housewives, and men do the least domestic work of all. One study showed the amount of daily time recorded for domestic activities per day was approximately 40 minutes for employed men and nearly five hours for employed women [Hernandez 1978].
Discrimination in Promotion and Job Placement

Although women receive equal pay for equal work, some legislation indirectly discriminates against working women. For example, full male employment is guaranteed by the Cuban constitution; furthermore, since the early 1970s an anti-loafing law makes work compulsory for all males (but not females) over seventeen who are not students or military personnel. Thus the majority of women's work in Cuba remains in the category of "reserve labor", and as such it is usually underpaid and short term [Nazzari 1983:260]. Brundenius has shown that although men and women receive equal pay for equal work, women are clustered in the lowest paying jobs: services and commerce (see Table 5.7).

<table>
<thead>
<tr>
<th>Occupational Sector</th>
<th>Wage (1975 pesos)</th>
<th>% Female Employees (1981)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Transportation</td>
<td>1945</td>
<td>1.9</td>
</tr>
<tr>
<td>2) Construction</td>
<td>1883</td>
<td>2.6</td>
</tr>
<tr>
<td>3) Industry</td>
<td>1693</td>
<td>--</td>
</tr>
<tr>
<td>4) Communications</td>
<td>1675</td>
<td>--</td>
</tr>
<tr>
<td>5) Agriculture</td>
<td>1543</td>
<td>11.4</td>
</tr>
<tr>
<td>6) Commerce</td>
<td>1469</td>
<td>56.4</td>
</tr>
<tr>
<td>7) Services</td>
<td>1458</td>
<td>45.5</td>
</tr>
</tbody>
</table>

Sources: Wage figures adapted from Brundenius [1979:Table 3]; female participation rates from CEE, Censo de Poblacion 1981 [1983:CCXI-CCXII].
Women are generally viewed as less desirable employees by many employers. This problem is recognized in a Federation of Cuban Women document: "There are still cases of managers who discriminate against women...because they claim that women create problems" [LARR 1980]. Male administrators often prefer to hire a man who does not necessarily have to contend with the problems of child rearing. In addition to coping with decreased productivity due to high absenteeism among women workers, businesses must remunerate new mothers at full pay during a four and a half month maternity leave [Hageman 1975:30; Steffens 1975:29]. Also, the working mother has the right to one day of compensated leave every month for visits to the pediatrician [Mendoza 1984]. This causes further discrimination against hiring women in an economy which has not only "returned to the principle of distribution according to work, but also has reestablished the connection between labor reward and enterprise productivity and profitability" [Mesa-Lago 1981:192-193; Brundenius 1981:1084].

Poor Political Representation

Before the revolution women seldom ran for office nor did they appear often as members of boards, commissions, or other appointed positions at the policy making level [Nelson 1970:144-145]. In the elections for the Poder
Popular assemblies (the basic unit of state administration) in Matanzas province, 1974, only 7.6 percent of the candidates were women, and only 3 percent were of the elected representatives were women. A survey conducted in April, 1975, showed that "responsibility traditionally reserved for the feminine sex" regarding domestic chores and childcare, together with "low cultural level" accounted for the low percentage of women leaders. Of the women interviewed 54 percent were unwilling to take on leadership responsibility for the same reasons [King 1979:120].

The problems that keep women out of local politics are the same ones that keep them out of the upper levels of government. The Communist Party looks for new members from within the working population. Since women constitute less than a third of the labor force they are already at a disadvantage. Women are often unable to perform the extra duties and volunteer work that leads to Party membership. Indeed, in 1976, women represented only 13 percent of the Cuban Communist Party [Bengelsdorf and Hageman 1978:369-370].

**Cultural Attitudes**

A comment from a record holding cane cutter and mother:

Work shouldn't make us overlook the fact that we're women. I take care of myself. A woman must remain attractive, no matter how hard she works. You know how men are... [Hageman 1975:31].
And from Digna Syres, head of the Frente Feminina (a national women's organization concerned with the working woman):

There are still a great many people today, revolutionaries included, who think that women are for the home and men for the street. In a sense...men are the only thing standing in the way of woman's total liberation.... [Randall 1974:30].

Although women have greater educational and employment opportunities now than before the revolution, they are still expected to be the homemaker by both their husbands and themselves. This constitutes a "sobrecobre", or a second shift of domestic chores for the working woman and mother. This second shift is a major area of concern among women's groups and the government, as it leads to low productivity and high absenteeism among female employees.

Not only is the traditional Latin form of "machismo" (an exaggerated sense of masculinity, virility and domination of females) prevalent in Cuba, but Randall notes an extra element in the social strictures on female behavior, the "Abakua". This is a secret African society of men who consider women inferior and unclean. Membership in the "Abakua" became a prerequisite for working in construction, the docks, and port work; even some members of Congress and the cabinet belonged. At the beginning of this century approximately 90 percent of all workers in these sectors were "Abakua" [Randall 1974:27]. The society was still active in worker's issues in 1961, although since
then it has been replaced by the activities of mass organizations [Dominguez 1978:466].

Despite efforts to the contrary, this ingrained cultural prejudice against women is reflected in legislation. An official resolution issued in 1976 restricts women from taking some 300 jobs, largely for health reasons. While some of these restrictions are warranted (such as the hazards of lead exposure to a foetus), others, like working underwater or at great heights, have no stated medical basis. Fidel Castro explained his support of this biologically determined division of labor in 1974: "It is true with women, and must be so with women, because they are physically weaker and because they have tasks and functions and human responsibilities that the man does not have" [Bengelsdorf and Hageman 1978:376-377].

Efforts to Promote Female Labor Force Participation

The problems facing working women and the concomitant loss of skilled labor have caused concern at the highest levels of government. President Castro expounded on this at the 13th Congress of Cuban Worker, November 1973:

"It costs a lot to train a nurse! It costs a lot of money to train a teacher! All those years...elementary school, high school.... And what a need we have for teachers! But if a young man made a good salary, and he married the teacher, he told her: 'Don't go to work, we don't need the money...' And the country lost a good teacher. Lost a good nurse. Of course, when the
country lost the teacher and the nurse it wasn't only for economic reasons, it's all the residual male chauvinism and supermanism and all those things that are still a part of us" [quoted in Bengelsdorf and Hageman 1978:367].

The government has passed legislation and designed programs to alleviate the extra pressures on working women. Although these measures undoubtedly make life easier on the working woman, they also inadvertently act to reinforce women's responsibility for domestic and child rearing duties. For example, the Family Code requires men and women to share household duties equally, without regard to sex. Yet, it allows the duties to be divided by time available -- in other words, the partner with the most "free time" would be expected to do the brunt of the domestic work. ("They [the married couple] must participate to the extent of their capacity or possibilities in the running of the home"). However, since male employment is practically universal, this leaves the majority of the domestic work to the female partner who may not have as steady a job, or one at all. Additionally, programs are designed to make life easier for the working mother, but fathers do not receive the same benefits. For example, the "Plan Jaba" is a shopping scheme allowing working women to go to the front of what are usually very long shopping lines and pick up pre-ordered bags of groceries; preferential access to daycare goes to the children of working mothers, as well as paid maternity leaves, etc. Such programs are only
available to women making it more difficult for men to take
equal responsibility for children.

Demographic Consequences of Female Employment

How does the employment situation of Cubans, especially women, influence fertility?

Cuban women today have increasing opportunities to work outside of the home in non-traditional (formally male dominated) positions. Though some researchers feel that this ultimately lowers the status and therefore the pay scale of the job (see Boserup 1970), this ultimately allows the woman to earn respect and status outside of her childrearing role, as well as financial independence. With this expansion of the female domain from the "casa" and into the "calle", the opportunity costs of keeping a woman at home and out of the market place grows. This, combined with mandatory primary and secondary schooling for children, increases the cost of maintaining a large family.

As female labor force participation rates have increased from 13 to 31 percent since the revolution, total fertility has dropped. Hollerbach and Diaz-Briquets state that "No data have ever been published on the number of live births...of employed and non-employed women in union" [1983:155]. However, the 1981 census provides some new information on the number of live births per woman 15-49 with regard to her occupation, but omits any cross tabulation with regard to conjugal status. There is nothing
suprising in these figures: as the degree of work specialization and qualification required increases, fertility declines. Women with the highest average number of children work in agriculture and construction (3.51 children), followed in descending order by services, commerce and public nutrition (2.8), women working in industry (2.15), those in transport and communication (1.64), and finally professionals, i.e. directors, planners, researchers, doctors, lawyers, etc. (1.23). The relative ranking of figures on the number of live births among urban and rural women fifteen years and over remain the same, although rural women exhibit a higher fertility than their urban counterparts in all occupations except among professional women, perhaps due to the small number of women in this category in rural regions [CEE 1983:CLVIII].

In their analysis of the effect of employment on fertility Hollerbach and Diaz-Briquets find that the occupational category of a father does not appear to be a significant differential in Cuban fertility. Differentials in fertility that do exist are better explained by differences in educational level and, to a lesser extent, by rural-urban differentials [1983:1248].

Conclusions

The roles of Cuban women are in transition. Old ideas about feminine behavior are slowly crumbling under the
pressure of the government's egalitarian ideals and the economic necessity of incorporating women into the labor force. Women are finding greater opportunities in the labor force, but problems remain. Material constraints and cultural prejudice are probably the main factors inhibiting continued growth in female labor force participation.

In a country where the women's movement is viewed as a component of overall social and economic development, the rate of change is directly tied to the concerns of the ruling powers. For the past twenty-five years, the promotion of women's issues has been advantageous to the country as a whole. However, it is doubtful that with the entrance of the baby boomers into the working ages and the commensurate increase in unemployment, increased agricultural mechanization, and an unsteady economic outlook, that the government will maintain past levels of support for women [7]. In the Five Year Plan proposed in 1980, there was no further talk of increasing female representation in the work force; rather, the "plan set as a goal the maintenance of the current proportion of female participation in the labor force" [Mesa-Lago 1981:120]. Cuba has taken a realistic approach to the promotion of women's social and economic roles by supplying a legal foundation for equality. Economic priorities will dictate the speed and degree at which and further advances take place in women's roles. In the words of Purcell:
Not all aspects of the modernization of Cuban women...are congruent with the developmental goals of the Castro regime. Incongruence arises when there is competition for limited resources. In such cases, the effort and cost of undermining resistance and further pursuing the ideal of equality between the sexes are less easily justifiable. As a result, the tendency has been for further modernization of Cuban women to be sacrificed to the more urgent and pressing developmental priorities. This illustrates one of the main problems of modernizing women from above. Unless such modernization is the main priority of the regime, or aspects of it are necessary to attain higher priority goals, the modernization of women will be subordinated to higher priority goals when competition for limited resources is involved [1973:267].

Although little empirical data exist to verify the actual effect of these factors upon fertility, the growing opportunity costs of women and the burden of the double shift should theoretically depress fertility. Data on fertility by occupational status show that fertility declines with increased female occupational stature. However, it is more likely that the educational requirement for women in more intellectually demanding positions has a greater negative force on fertility making decisions than the rigors of the occupation itself.

HOUSING

The provision of adequate housing has been a problem in Cuba since the turn of the century. The overcrowding and lack of privacy which stems from a large housing deficit is one of the factors associated with the recent fertility decline.
Table 5.8 reviews the housing situation in Cuba since the early 1950s. By 1959, estimated deficits in housing ranged between 250,000 to 700,000 units, 655,000 being the figure most often cited [Mesa-Lago 1981:173]. Hollerbach and Diaz-Briquets estimate that during the 1970s, the housing deficit increased by nearly half a million units, reaching approximately 1.5 million units by 1980. As the baby boom cohort continues to reach marital age during the 1980s, the demand for housing will continue to increase [1983:188-190].

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Units Built</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959-1963</td>
<td>85,447</td>
</tr>
<tr>
<td>1964</td>
<td>14,200</td>
</tr>
<tr>
<td>1965</td>
<td>5,040</td>
</tr>
<tr>
<td>1966</td>
<td>6,271</td>
</tr>
<tr>
<td>1967</td>
<td>10,257</td>
</tr>
<tr>
<td>1968</td>
<td>6,458</td>
</tr>
<tr>
<td>1969</td>
<td>4,817</td>
</tr>
<tr>
<td>1970</td>
<td>4,004</td>
</tr>
<tr>
<td>1971</td>
<td>5,014</td>
</tr>
<tr>
<td>1972</td>
<td>16,807</td>
</tr>
<tr>
<td>1973</td>
<td>20,710</td>
</tr>
<tr>
<td>1974</td>
<td>18,552</td>
</tr>
<tr>
<td>1975</td>
<td>18,602</td>
</tr>
<tr>
<td>1976</td>
<td>15,127</td>
</tr>
<tr>
<td>1977</td>
<td>20,024</td>
</tr>
<tr>
<td>1978</td>
<td>17,012</td>
</tr>
<tr>
<td>1979</td>
<td>14,498</td>
</tr>
<tr>
<td>1980 (Goal)</td>
<td>15,000</td>
</tr>
</tbody>
</table>

Source: 1959-1976, Roca [1979:Table 1]; 1977-80, Mesa-Lago [1981:Table 46].
Not only is there a shortage of housing in general, but there are also problems with maintaining existing structures, and with the types of housing most people inhabit. Visitors to Havana frequently note the disheveled appearance of the old sections of the city -- many of the buildings are reinforced with exterior supports until proper repairs can be made. The problem is so ubiquitous that the Census includes figures on housing requiring structural props (4.4%) and those with leaky roofs (50.0%) [CEE 1983:Chapter IV]. New housing built by the state is usually constructed of modern materials (cement, masonry, etc.); however, the traditional "bohio" (or palm thatched hut) is still a common sight, comprising 13 percent of the housing stock in 1981 (see Table 5.9).

<table>
<thead>
<tr>
<th>Housing Type</th>
<th>Cuba</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>House</td>
<td>66.9</td>
<td>69.9</td>
<td>59.7</td>
</tr>
<tr>
<td>Apartment</td>
<td>14.9</td>
<td>21.0</td>
<td>0.8</td>
</tr>
<tr>
<td>&quot;Bohio&quot;</td>
<td>13.3</td>
<td>2.5</td>
<td>38.7</td>
</tr>
<tr>
<td>Boarding House</td>
<td>4.7</td>
<td>6.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Make-shift</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>


The problems are worse in rural areas. Here well over a third of all housing is made up of either "bohios" or
make-shift structures. Although during the early years of the revolution, the majority of the housing construction was concentrated in the rural regions, these efforts did not last long enough and were not extensive enough to wipe out the legacy of insufficient and substandard housing in the countryside. Since the 1970s, the construction emphasis has again returned to Havana and other urban centers [Valdes 1983:54].

Demographic Consequences

Overcrowding due to the housing shortage has been suggested as a cause of high divorce rates, delayed marriages, and reduced family size. Informal surveys taken in the 1970s showed that lack of space was a frequent reason cited among women choosing to terminate their unplanned pregnancy [Hollerbach and Diaz-Briquets 1983:191].

An indirect effect of multi-generational housing is the influence of grandparents (especially in rural areas) upon the fertility decision making of the grandchildren. The "abuela", or grandmother, bore her children during a time when infant mortality rates were high; she wanted "additional" offspring as a form of insurance against losing one or more children. Although health standards and infant/maternal care have improved dramatically since the revolution, it is likely that those of an older generation will encourage a young couple to have a large number of
children [Huston 1979].

On the other hand, crowding may also inhibit fertility through both lack of space and lack of privacy. The average household size in Cuba is 4.3 (4.2 for urban areas, but rising slightly to 4.4 in rural regions). This means, with an average of 3.2 rooms per household, there are approximately 1.3 persons per room (slightly higher in rural areas; lower in urban) [CEE 1983:CCXXXII]. In comparison, the average household size in the US is 2.8, while the average number of rooms is 5.1 [US Bureau of the Census figures, 1980]. This means there is an average of .6 persons per room, or a little less than half the Cuban figure.

Conclusions

Compared with the effects of health, education and employment, the housing deficit plays only a minor role in the reduction of population growth in Cuba. Like these social and economic determinants of fertility, the future of housing in Cuba is tied to the overall economic well-being of the Republic. Housing was a low priority through the first two decades of the revolutionary government: in the 1960s, scant construction resources were directed towards production facilities (roads, ports, factories, etc.). In the 1970s, the emphasis switched towards schools and day care centers. But with continuing growth in the housing deficit, President Castro has
suggested a plan to increase housing construction to achieve an annual rate of 100,000 units by 1985 which, if maintained, would erase 85 percent of the growing deficit by the year 2000 [Roca 1980:71]. Whether or not this goal will be attained is dependent on Cuba's international economic performance and on budget priorities within the country. At present, however, the housing situation in Cuba remains poor, and thus maintains a negative effect on fertility.

SOCIAL SECURITY

In many developing countries children form the basis of old age security, especially in rural areas. When there is no comprehensive social security system or health insurance, the elderly, disabled or untrained may be left with no means of support after retirement or death of the main provider. Thus an ample supply of children may be essential to a rural woman who depends entirely upon others for her support.

This was not entirely the case in prerevolutionary Cuba. The presence of strong labor unions well before the establishment of the Castro regime assured most working Cubans of some degree of social security in the event of death or illness. According to Mesa-Lago, "Cuba had the second highest social security coverage in Latin America." Yet before the revolution, distribution was unequal and available only to those actually involved in the wage labor
force. "In 1958 about 63 percent of the labor force was covered for old age, disability and survivors insurance, while all the labor force was covered against occupational accidents and diseases, and female employees had maternity insurance. High status occupations normally had the best funds and conditions, while low status occupations had the worst; for instance, minimum pensions fluctuated from 30 to 200 pesos a month and maximum pensions from 60 to 400 pesos" [Mesa-Lago 1981:169].

With the change in government, the social security system improved dramatically: coverage extends to all the labor force (for old age, disability, and survivors) and all the population (for health and maternity). The insured does not have to make any direct contribution to a national fund in order to be eligible; costs are paid by a social security tax charged to all state enterprises, farms and agencies. Today not only does 40 percent more of the labor force qualify for pensions, but these are more equitable than before. Pensions are fixed in proportion to salary and time of service, but extreme pension differentials are reduced by minimum and maximum pensions (60 to 250 pesos) [Valdes 1983:93; Mesa-Lago 1981:170-172]. Although coverage and distribution have improved, the average monthly pension per capita has only risen from 62 pesos per month in 1958, to 65 in 1978 (compared with the average monthly salary of 140 pesos in 1978). It must be noted, however, that health care is free and there are 59 old age homes provided by the
state housing some 7255 persons [Valdes 1983:91]. The housing shortage has meant that most older people still reside with younger relatives [Hollerbach and Diaz-Briquets 1983:140].

TABLE 5.10: SOCIAL SECURITY EXPENDITURES AND PENSION PER CAPITA, 1959-1980 (in current pesos)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (In Million Pesos)</th>
<th>Subsidies and Welfare (In Million Pesos)</th>
<th>Pension Per Capita (Pesos)</th>
<th># of Pensioners (1000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>114.3</td>
<td>114.3</td>
<td>740</td>
<td>154</td>
</tr>
<tr>
<td>1960</td>
<td>124.3</td>
<td>124.5</td>
<td>732</td>
<td>170</td>
</tr>
<tr>
<td>1961</td>
<td>150.5</td>
<td>150.5</td>
<td>727</td>
<td>210</td>
</tr>
<tr>
<td>1962</td>
<td>151.9</td>
<td>151.9</td>
<td>713</td>
<td>213</td>
</tr>
<tr>
<td>1963</td>
<td>177.0</td>
<td>177.0</td>
<td>708</td>
<td>250</td>
</tr>
<tr>
<td>1964</td>
<td>235.7</td>
<td>196.6</td>
<td>702</td>
<td>280</td>
</tr>
<tr>
<td>1965</td>
<td>249.8</td>
<td>208.3</td>
<td>699</td>
<td>298</td>
</tr>
<tr>
<td>1966</td>
<td>247.1</td>
<td>205.3</td>
<td>689</td>
<td>298</td>
</tr>
<tr>
<td>1967</td>
<td>245.3</td>
<td>207.3</td>
<td>688</td>
<td>301</td>
</tr>
<tr>
<td>1968</td>
<td>308.9</td>
<td>223.9</td>
<td>670</td>
<td>334</td>
</tr>
<tr>
<td>1969</td>
<td>393.9</td>
<td>275.7</td>
<td>806</td>
<td>342</td>
</tr>
<tr>
<td>1970</td>
<td>440.7</td>
<td>286.5</td>
<td>790</td>
<td>363</td>
</tr>
<tr>
<td>1971</td>
<td>486.5</td>
<td>311.1</td>
<td>790</td>
<td>394</td>
</tr>
<tr>
<td>1972</td>
<td>514.5</td>
<td>342.9</td>
<td>796</td>
<td>432</td>
</tr>
<tr>
<td>1973</td>
<td>554.4</td>
<td>383.3</td>
<td>816</td>
<td>470</td>
</tr>
<tr>
<td>1974</td>
<td>553.4</td>
<td>417.2</td>
<td>823</td>
<td>507</td>
</tr>
<tr>
<td>1975</td>
<td>585.4</td>
<td>448.2</td>
<td>824</td>
<td>544</td>
</tr>
<tr>
<td>1976</td>
<td>609.4</td>
<td>473.2</td>
<td>814</td>
<td>581</td>
</tr>
<tr>
<td>1977</td>
<td>626.0</td>
<td>491.5</td>
<td>781</td>
<td>629</td>
</tr>
<tr>
<td>1978</td>
<td>647.6</td>
<td>507.5</td>
<td>778</td>
<td>652</td>
</tr>
<tr>
<td>1979</td>
<td>674.6</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1980</td>
<td>715.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

(a) Only monetary payments; excludes costs of health care provided by the Ministry of Health.

Demographic Consequences

There are no data available to illustrate the direct impact of social security upon the Cuban fertility decline. However, the evidence suggests that the existence of old age security, combined with the diminished economic value of children (due to working age laws and mandatory schooling) should make children a more expensive, risky, and therefore a less desirable form of old age security. Diaz-Briquets and Perez conclude: "The virtual elimination of the private sector has reduced the utility of children as a source of labor in family enterprises. In turn, the new economic system, by eliminating many of the economic uncertainties with which the poor have to cope in Third World nations, has reduced the value of children as a form of risk aversion.... Thus, children are no longer a crucial source of old-age security" [1982:530-531].

RELIGION

Cuba is nominally a Roman Catholic country, although in practice it has long been, and still remains, "religiously indifferent" [Balmaseda et al. 1983]. A 1954 survey taken by the Association of Catholic University Students found that 72.5 percent of the 4000 respondents (and only 52 percent of the rural respondents) said that they were Catholic. Among these, only 24 percent attended services regularly, and 27 percent of them had never even seen a priest [Marimon 1971:400]. Such figures suggest that
the Cuban people, although claiming to be faithful, did not actively practice their professed religion. This religious apathy, especially with regard to Catholicism, is due in part to early associations between the Spanish rulers and the Roman Catholic Church. After Cuba's liberation from Spain, efforts were made to officially and permanently separate church and state. Today, 42 percent of the population professes Catholicism, while approximately 49 percent of the population have no stated religion; other churches and sects command the support of a very small number of people [Dominguez 1981:57].

Article 54 of the 1976 Constitution guarantees freedom of religion, but it also explicitly reserves the power of the state to limit these rights. Since the early 1960s when the churches and the government clashed violently, all the major religions are careful not to criticize the government; in fact, they seem to support government policies whenever possible. On the other hand, most religious activities are tolerated by the government. There are over a dozen seminaries (both Catholic and Protestant) spread throughout the island [Dominguez 1978:204, 217, 412-413]. Yet the numbers of religious leaders are declining: today there are only 200 priests compared with 2000 in 1959, and no rabbi for the approximate 1500 Jews left in Cuba [Balmaseda et al. 1983; Oppenheimer 1983].

Although the government and the church have a mutual understanding, fervently religious behavior is not
considered part of being a "good revolutionary". Those who regularly and openly practice their religion are often denied many of the professional and personal rewards which come with party favoritism (e.g. access to scholarships, housing, party memberships, important posts, etc.) [Lumsden 1972:536]. A Jewish surgeon and father of four noted that "young people know that it is not likely for a practicing Jew or Catholic to become part of the revolution's leadership" [Oppenheimer 1983]. As a result, it appears that the typical church-goer in Cuba today is an elderly woman, who is neither interested in leaving her homeland, nor in joining in any of the multiple mass organizations [Holt-Seeland 1982]. A parish priest in Havana confirmed this: "Most of the parishioners at Our Lady of Carmel...are elderly women. Children almost appear to sneak in" [Balmaseda et al. 1983].

Demographic Consequences

This lack of institutionalized religion has undoubtedly weakened the impact of religious doctrine on Cubans' fertility making decisions. Even before the revolution Cuba had a relatively lenient divorce law compared to other Catholic countries. The high level of consensual unions is further evidence that the traditional Catholic form of family relations was not as pervasive here as in other Latin American countries. It is likely that the weakening of the Catholic church has made the use of birth
control and abortion more acceptable in Cuba. As the religious values of Cubans continue to come under pressure from the government it is unlikely that they will have any great effect on fertility in the future.
NOTES TO CHAPTER FIVE

[1] In 1977, Cuba spent 1.1 billion pesos on salaries of personnel involved in social services. This total represents 26 percent of all salaries which are centrally managed. Education personnel received a total of 431 million pesos or 39 percent of all social services salaries, followed by health with 183 million pesos or 17 percent [Mundingo and Landstreet 1981:21].

[2] Availability of birth control merely supplies the means to an end. As Mamdani has shown in his critique of the KAP failure in Punjab, India (the sample survey of Knowledge, Aptitude and Practice of birth control that was a popular demographic tool during the 1950s and 1960s), the social and economic desire to limit family size must exist before anyone will use the available contraceptives [Mamdani 1972].

[3] Anesthesia, septic shock, sepsis and heart failure were the main causes of the 1980 abortion-related deaths. Five of the eight deaths occurred among women aged 15-24. During the years 1968-1978, only one legal abortion death in 11 was recorded for this age group. No pattern is discernible in the provincial distribution or hospital location of deaths [Hollerbach and Diaz-Briquets 1984:19].

[4] Cuban census data include individuals between the ages of 6 and 10 in the enumeration of those with over a sixth grade education per 1000 people over six years old, although it is extremely unlikely that any of these children could possibly complete primary school within these ages. Nevertheless, the figures provide some idea of the improvement in overall educational levels in Cuba over time.

[5] Valdes states that "It is debatable, however, the extent to which [the educational system] also tolerates religious or political views that are contrary to those of the state." And, "The educational system, as a matter of policy and principle, discriminates on the basis of politics" [Valdes 1983:79]. Also, teachers as well as student can be removed from an educational institution for "publicly defaming or scorning the institutions of the republic and the country's political, social and mass organizations, heroes and martyrs." He adds, "Recently...411 students who had passed with very high scores their medical entrance examinations were not allowed to continue their education on the basis that they had a 'bad political outlook' (mala formacion politica) or were
'morally lacking' (which in Cuba often has the connotation of homosexuality)" [Valdes 1983:80]. Entrance to certain schools and access to scholarships is reserved for the children of members of the "Fuerzas Armadas Revolucionarias" (army) [Murray 1979:65].

[6] These figures are only estimates as the Census figure for the number of individuals in the work force (3,540,692), includes members of both sexes 17 years and over in the definition of the economically active ages; however, the Anuario Estadistico figure for female LFP (5,284,221) refers to the separate legal working ages of 17-54 for females and 17-59 for males.

[7] Refering to the economic picture in the 1980s, Mesa-Lago concludes: "Economic growth...will be modest....It is expected that in 1981-85, the growth rate will be stagnant, investment will rise at a slower pace than in the 1970s, social consumption will freeze, and frugality for consumers will continue" [1981:179].
SUMMARY OF FINDINGS

Although the Cuban population growth rate began its decline in the early part of the century, the speed and degree of decline intensified dramatically after the establishment of the Castro government in 1959. After an initial baby boom following the many years of conflict, the rate of natural increase dropped from a high of 28.1 in 1964 to a low of 8.0 in 1981 -- a decrease of over 70 percent in just seventeen years. The decline has taken place in both the urban and rural areas of the country. Although the rural inhabitants maintain higher fertility levels than their urban counterparts, the differentials between the two continue to diminish as the rural areas are more fully incorporated into the mainstream of social and economic changes.

REASONS FOR THE DECLINE

Although Cuba has very liberal access to both birth control and abortion, the recent decline in the birth rate was not due to any overt demographic program or policy instituted by the regime. Rather, the sources of the decline are found in the various social and economic changes.

Analysis of recent census data and the demographic
literature reveals that improvements in women's education and their incorporation into the work force has offered alternatives to childrearing and/or traditionally low status female employment. The literature on fertility behavior confirms that such alternate lifestyles for women, combined with improved financial security, leads to lower fertility rates. Improvements in the quality and availability of health care have not only increased life expectancy, but also led to a dramatic decrease in infant mortality. The extensive system of polyclinics provides access to contraceptive technology and abortion facilities to even remote rural women. These socio-economic changes are reinforced by legal statutes and government programs directed at improving women's status.

Therefore, it appears that the basic social and economic reorganization brought about by the establishment of the socialist government has led to the rapid and extensive decline in Cuban fertility. This decline, although in evidence prior to the revolution in 1959, could not have occurred to such a degree and with such speed without the improvements in women's status and infant mortality brought about by the socialist regime.

ANTICIPATION OF FURTHER CHANGES

In Cuba, the commitment to providing basic services, education, health and employment to all sectors of society, has inadvertently led to a rapid and extensive fertility
decline. Despite the positive effect of the entrance of the baby boom cohort into their reproductive years (thus causing the crude birth rate to rise), fertility in Cuba should continue to decline as long as the government remains ideologically committed to social equality, and financially committed to its public health, social security and education programs.

However, Cuba's economy is artificially maintained by subsidies amounting to one billion dollars each year from the Soviet Union. If this aid is substantially decreased or cut off, it is likely that resources will be funneled into the production sector to the detriment of health, education and welfare programs. If this happens, the decline in fertility will undoubtedly slow, perhaps reverse, as the social and economic patterns that have maintained it disappear.

The large subsidies from the Soviet Union make it difficult to present Cuba as a model for other developing countries. Nonetheless, Cuba's experience adds to the examples of the power of social and economic change in league with accessible abortion and contraception to bring about fertility decline.
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