
SYSTEMIC FAILURE AND DEMOGRAPHIC OUTCOMES: CUBA'S PERFECT STORM

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Our objective in this occasional paper is documenting and discussing how changing political and socioeconomic circumstances, together with misguided and ill-conceived economic reform attempts within the politico-economic system governing Cuba, have not only failed to but have contributed to often overlooked demographic and social dislocations, emigration being but the most visible consequence. Such adverse demographic developments may be considered a “canary in the coal mine”—indicators of the backsliding of previous health and sociodemographic achievements. In this sense, the Cuban experience stands at the crux of the long-standing population and development debate. What could be learned from the Cuban experience applies to other countries within the Latin American region, particularly Nicaragua and Venezuela.

These three countries to varying degrees share political and economic systems modeled on failed Soviet-style policies, inimical to market signals and wedded to autocratic, top-down, dissent-adverse, intolerant political control (for one of the most perceptive treatments of their systemic flaws, see Kornai 1992). Such political and economic systems have shown themselves to be incapable of fostering sustained economic growth, while often depressing living standards. Claiming to govern on behalf of the downtrodden, these regimes’ policies generate growing political and social polarization and economic dislocations, ruling over countries confronting growing poverty, collapsing social services, and a citizenry voicing growing frustration about expectations for the future.

Worsening demographic indicators include rising infant and maternal mortality rates and life expectancy declines, intertwined with ineffective policies designed to reverse a declining fertility trend. Our analysis begins with an examination of how systemic economic failures have weakened the social safety net, including a collapsing public health system; contributed to worsening living conditions for an impoverished growing elderly population; and deepened living standard differentials between the country’s urban and rural sectors. As will be shown, these growing demographic and social inequities are magnified differentially across skin color lines, non-White Cubans being more at risk than White Cubans. By necessity, the essay that follows is selective, focusing on migration and mortality trends and highlighting those developments that, in our judgement, take saliency over others. They provide clear evidence of what Tabutin (1997) described as a “demographic fragility,” or vulnerabilities that at some junctions may impact a population severely enough so as to reverse prior social and demographic achievements.

01 ROOTS OF THE CURRENT CUBAN ECONOMIC CRISIS AND FAILED REFORM ATTEMPTS

If there has ever been a polarizing debate in the international development literature, it has raged about the detrimental role of the U.S. trade embargo on Cuba's long-term economic development. As considering this debate is crucial to our analysis and conclusions, this topic is addressed at the outset.

The U.S. Trade Embargo against Cuba

While undoubtedly the embargo has had negative repercussions, the weight of evidence suggests those consequences may be more modest at present than often assumed and concentrated in certain time periods (during the early 1960s and the early 1990s so-called Special Period in Time of Peace economic crisis). Cuban officials allege that the embargo has cost Cuba a staggering US\$154.1 billion between 1962 and 2023 (*Cubadebate* 2023b), but without ever disclosing the bases of their calculation.¹ More sensible estimates generated by the United Nations claim that the damage may have reached US\$130 billion, plus penalties levied against Cuba's allies and investors by the United States (Adler 2022).

An increasingly prevalent point of view, as expressed by an Amnesty International official, is that despite the embargo having had a greater negative impact on the Cuban economy in the past, it is "obsolete" to continue holding that view, as Cuba's continued economic lackluster performance has little to do with the embargo's implementation (Bermúdez 2022). As many analysts have noted (Hufbauer et. al., 2009; Bermúdez 2002), the impact of unilateral embargoes wears off over time for various reasons, including measures taken by other countries to isolate their economies from their intended consequences. The embargo undoubtedly interfered early on with Cuba's

¹ As some keen observers note, the alleged impact of the embargo on Cuba, as claimed by Havana, varies as a function of the interlocutor. When seeking international condemnation of its enforcement, the highest possible figure is used; when seeking to convince potential foreigners to invest in Cuba, the same officials may just as easily informally claim U.S. sanctions are ineffective and could easily be bypassed. (This observation is based on a personal communication of a former high-level Cuban diplomat who was privy to business interactions between government officials and potential foreign investors.)

ability to import certain products, primarily U.S.-made equipment upon which the prerevolutionary economy heavily depended, but during the 1960s, 1970s, and 1980s its impact was minimized thanks to the Soviet Union's economic support. That was not the case during the 1990s as that assistance ended and Washington strengthened sanctions (Hufbauer et al. 2009). Since then, Cuba gradually managed to diversify its trading relations with some eighty countries, inclusive of access to economic assistance and commercial credit sources, thus substantially mitigating the economic embargo's effectiveness. For example, Cuba could import from China, an ideologically aligned friendly nation, all the goods it needed if it were able to pay, as many Latin American countries do. In fact, "China has displaced the U.S. as the region's top trading partner ... [and] become a major source of foreign direct investment and lending."² Furthermore, the embargo includes many exemptions, and not only related to humanitarian assistance, in recent years the United States becoming one of Cuba's primary food and medicine supplier.

Despite U.S. embargo restrictions, including the punitive Helms-Burton legislation, the extent of foreign participation in Cuba's economy, as evidenced by the long-lasting presence of Canadian and European companies, including the emergence in the last thirty years of a large, foreign-dependent tourism, foreign investment has not ceased.³ This follows from the European Community member nations' ability to build a legal rampart against the extraterritorial application of U.S. economic sanctions against Cuba (Bermúdez 2022). Moreover, Spain, the dominant foreign tourist sector player, commonly acts as Cuba's advocate within the European Union, a regular source, together with the United Nations, of concessional financial assistance.

On the other hand, as a non-member of the Bretton Woods global financial system, Cuba is unable to use the U.S.-dominated international financial and banking infrastructure (e.g., the SWIFT transference system)⁴ or obtain credit and emergency

² Polga-Hecimovich 2022. See also Raza and Grohs 2022.

³ Aside from foreign investments in tourism, as well as in agriculture (citrus) in the past, there have been some modest foreign capital infusions in the Mariel Special Development Zone (*Diario de Cuba* 2023).

⁴ The inability to access the SWIFT system undoubtedly raises Cuba's financial transaction costs but by no means impedes them as there are other vehicles through which they could proceed. For example, the Havana-based Banco Metropolitano publicly lists eighteen foreign correspondent banks located in Germany, Canada, Spain, France, United Kingdom, Italy, Japan, Panama, and Sweden. Undoubtedly, Cuba could also conduct financial transactions with banks from Russia and China, among other countries.

assistance through official international lending institutions—the World Bank, the Inter-American Development Bank, and the International Monetary Fund. Cuba voluntarily resigned its membership in this financial support network in the early 1960s, claiming it was designed to exploit poor nations, and Cuba henceforth was able to count on the Soviet Bloc’s generous and uninterested assistance. This decision is illustrative of an earlier leadership’s ideologically driven interpretation of the functions of these institutions in an increasingly interconnected international economy.⁵

Greater foreign investment has not taken place, by and large, because private foreign investors regard Cuba as a less inviting and hospitable country to operate, as compared to more welcoming countries with market-oriented economies. The Cuban government has historically imposed foreign investment limitations to preserve its non-competitive, state-dominated economic system. Cuba’s foreign investment pariah status was confirmed in a 2023 global ranking of 179 countries in terms of “economic freedom”: it placed Cuba at the bottom—just above North Korea—the ranking criteria being rule of law, regulatory efficiency, government size, and open markets (Heritage Foundation 2023). “A capitalist Cuba under sanctions,” an analyst recently noted, “would not even remotely have the problems it is experiencing. It would have problems, but not to the extent it does today ... since their root is the system’s inefficiencies” (Bermúdez 2022).

Washington restricts trade with the United States through regulations that dictate that Cuban purchases—largely unhindered although subject to licensing requirements with respect to food, medical supplies, and most consumer goods—must be solely conducted on a cash basis—no credit transactions permitted. Between 2001 and 2023 Cuba purchased from the United States some 7 billion dollars in agricultural goods (*Diario de Cuba* 2023). Under embargo exemption 515.591, even equipment exports to Cuba could be authorized to the extent that such gear is used to assist with the modernization and repair of infrastructure beneficial to the well-being of the people

⁵ A perspective of the enduring critical Cuban official view about these international institutions, as articulated by the country’s charismatic and all-powerful leader until his passing, may be found in Castro Ruz 2000.

of Cuba (*Foresight Cuba 2020*).⁶ From time to time, since the 1990s, other than for occasional interruptions (following September 11, 2001, and during the Trump administration), migrant remittances in the billions of US dollars have streamed to the country, in addition to in-kind shipment of all sorts of consumer goods. Hundreds of thousands of visitors residing in the United States, again with occasional interruptions, most of them Cuban American, visit the country annually.

The Internal Embargo

What is often left out of the U.S. embargo debate, although always lurking in the background, but the object of continued and intense interest, is the so-called “internal embargo,”⁷ a notion increasingly embraced by economists both within and outside Cuba. It refers to the heavy cost exacted by the continued imposition of the Soviet-inspired economic model inhibiting economic growth. This obstinacy persists, added to the authorities’ continued refusal to consider meaningful market-oriented economic reforms, even market reforms modeled after those of China and Viet Nam that have led to prodigious growth, capable of lifting hundreds of millions from penury. On balance, the consequences of the internal embargo have been far more consequential than those of the U.S. embargo.

Foreign Aid

Equally minimized among those who blame Cuba’s dire economic straits on the U.S. embargo is the remarkable extent to which foreign nations have subsidized the Cuban economy, both during and since the Cold War ended. As two well-informed students of Cuba have noted, Cuba “has historically suffered from economic dependency on other countries, something that continues 60 years after the revolution” (Mesa-Lago and Vidal Alejandro 2019:2). Between 1986 and 1990, for example, Soviet subsidies represented 21.2% of the Gross Domestic Product (Niederstrasser 2022). The level of external support granted Cuba on a per capita basis exceeds that provided any

⁶ If Cuba wanted to modernize and repair its crumbling electricity generation infrastructure, some of it U.S.-made and dating to prerevolutionary days—the country suffers from massive, recurrent power failures due to disrepair and obsolescence of most generation power plants—it could in principle apply for and would be likely to receive a waiver, as it currently enjoys for food imports, to purchase U.S.-made power-generating equipment. It does not do so simply because it lacks the financial wherewithal to pay for the equipment and credit sales are not allowed. Similar financial constraints prevent Cuba from purchasing replacement equipment from other national markets, including willing exporters such as China and the European Community.

⁷ Jorge Sanguinety, a long-time student of the Cuban economy, introduced the moniker.

other nation, barring countries engulfed in military conflicts (e.g., Iraq, Vietnam, and Afghanistan). Between 1960 and 1990, Mesa-Lago (2023a) estimated that Soviet Bloc subsidies to Cuba amounted to US\$39.390 billion, or more than three billion annually. This estimate is considerably lower than Gilbert's (1982), who concluded, based on his examination of Soviet archives, that between 1961 and 1979 alone, the total approximated US\$80.378 billion in current dollars, by any standard an astronomical figure, or about US\$4 billion per year. By way of contrast, regardless of the subsidized actual amount, the United States under the Alliance for Progress granted all Latin American nations a mere US\$20 billion (at current prices), or about two billion dollars per year over two decades, in comparison a puny amount.

Even more striking in relative terms is what between 1948 and 1952 a devastated Europe received from the United States under the Marshall Plan: US\$135 billion in 2018 dollars, or US\$13.2 billion in current dollars (Steil and Della Rocca 2018). This means that Cuba—allowing for uncertainties associated with nominal currency appreciation issues over time—a country relatively developed in 1960 by the standards of the time, unscathed by war, and with just about six million inhabitants, received in foreign aid—solely while under Soviet tutelage—economic subsidies worth from two to four times as much as all of Latin America under the Alliance for Progress, and about a third to two-thirds of what the United States granted multiple European countries in a prostrated postwar continent.

A Notorious Debtor Nation

Cuba, in addition, has become a notorious international debt deadbeat, an unworthy creditor nation no longer able to access commercial international lending, bilateral lenders becoming less willing to risk capital. Between 1960 and 2020, Cuba borrowed (excluding Soviet Union funds) nearly 60 billion dollars. As of 2020, despite forgiveness of about half of those obligations, Havana was still on the hook for the remainder, estimated at 29.787 billion U.S. dollars (Mesa-Lago 2023a:14). In total, therefore, between 1960 and 2020 Cuba was the beneficiary, according to Mesa-Lago, of roughly one hundred billion U.S. dollars in grants and unrepaid loans, or just about 30% less than what the Marshall Plan provided Western Europe. If the Gilbert calculations are closer to reality, the comparable dollar amount would be far greater. Unfortunately, six decades later Cuba has little to show for such foreign largesse, a compensatory financial bounty that could be argued blunted whatever economic damage could have been caused by the U.S. embargo.

What is undeniable for our purposes is that whenever Cuba had access to copious foreign assistance, it managed to successfully implement beneficial social policies, as in education and health. When external resources became sparse, social achievements retreated as they proved unsustainable absent internally generated economic growth. Also meriting consideration is how much waste and economic mismanagement accompanied the achievement of such worthy goals. Examples abound. One such instance beyond the demographic realm is the now discarded educational experiment of pursuing universal education, while simultaneously attempting to instill revolutionary virtues among Cuban children. This was to be achieved by educating children in “Schools in the Countryside” (*Escuelas al Campo*), where study and agricultural work were combined at enormous financial costs. Once the program was discarded, all that was left were hundreds of abandoned costly and bulky rural campuses, fully equipped not only with classrooms and dormitories, but many also furnished with elaborate labs and sport facilities, the equivalent of white elephants, no longer of much use. Many other examples of extravagant misallocation of resources in the industrial, agricultural, energy, and service sectors could be cited, which today lie decaying or simply abandoned.

02

ECONOMIC PERILS AND DEMOGRAPHIC OUTCOMES

Cuba is currently facing an economic crisis nearly as severe as during the early 1990s, the so-called Special Period in Times of Peace, when it lost the commercial and economic subsidies provided by the Soviet Union and its Eastern European socialist allies under the Council for Mutual Economic Assistance (CMEA). While the economic, social, and health consequences of the Special Period were severe, leading even to an outbreak of optical neuropathy as nutritional standards dramatically declined, the demographic consequences, while appreciable, were not long lasting. Mostly they were reflected in a temporary impact on life expectancy (see Table 1), particularly between 1993 and 1994 (Albizu-Campos Espiñeira 2014) and a sharp fertility contraction (Albizu-Campos Espiñeira 2016), aside from the 1994 disorderly migration outflow. The latter was attributed to generalized discontent generated by severe consumer good shortages, including recurrent power outages; it led then President Fidel Castro to allow close to forty thousand rafters to depart the country without interference from the Cuban military and coast guard.

Table 1. Mortality Indicators, Cuba, Selected Years and 1990 to 2021

Years	Life Expectancy at Birth *	Infant Mortality Rate **	Maternal Mortality Rate ***
1960	63.99	62.27	-
1965	67.10	48.66	-
1970	69.93	37.66	70.4
1975	71.74	27.42	68.4
1980	73.24	19.78	59.9
1985	73.88	16.50	46.1
1990	74.31	10.12	41.8
1991	74.18	10.20	46.0
1992	74.08	10.04	45.1
1993	73.84	9.33	36.8
1994	73.81	9.01	57.0
1995	74.35	8.53	47.6
1996	74.96	8.18	36.4
1997	75.20	7.39	38.6

Years	Life Expectancy at Birth *	Infant Mortality Rate **	Maternal Mortality Rate ***
1998	75.46	6.94	39.1
1999	75.74	6.90	43.8
2000	76.51	6.55	40.4
2001	77.09	6.38	33.9
2002	77.33	6.03	41.1
2003	77.76	5.76	39.5
2004	77.55	5.38	38.5
2005	77.74	4.79	51.4
2006	77.99	4.48	49.4
2007	78.21	4.12	31.1
2008	78.13	4.23	46.5
2009	78.05	4.23	46.9
2010	78.24	4.43	43.1
2011	78.40	4.35	40.6
2012	78.51	4.23	33.4
2013	78.27	3.91	38.9
2014	77.99	3.98	35.1
2015	77.92	3.83	41.6
2016	77.75	3.72	41.9
2017	77.72	3.66	39.1
2018	77.57	3.97	43.8
2019	77.56	4.30	37.4
2020	75.10	5.36	40.0
2021	71.25	6.96	176.6

* Both sexes combined ** Per 1,000 live births *** Per 100,000 live births

This episode, as had previously occurred during the 1965 opening of the port of Camarioca, through which a few thousand Cubans were allowed to leave the country—following the 1959–62 departure to all foreign destinations of the initial 354,963 post-revolution disgruntled nationals (Schroeder 1982), including the 248,070 refugees admitted in the United States—for the first time led Washington to negotiate with Havana the orderly departure of people alienated from the country’s policies through the 1965–73

Freedom Flights.⁸ Less than a decade later, after the Freedom Flights had ended, the Mariel outflow ensued, whereby more than 125,000 Cubans reached the United States through the notorious sealift. In all cases, emigration served as a safety valve for domestic discontent and leverage to force Washington to negotiate with Havana (Greenhill 2010). The socioeconomic and racial composition of the various migration waves has evolved over time: whereas it first included mostly members of Cuba's former economic elites and middle classes, disproportionately represented by Spanish immigrant descendants, more recent emigration waves increasingly reflect Cuba's population as a whole, including its racial kaleidoscope.

Following the 1990s' Special Period disruptions, other demographic disturbances were short-lived as Cuba's economy partly recovered thanks to limited economic reforms (such as developing the foreign tourism industry and allowing migrant remittances), and, eventually, due to the financial generosity of Venezuela's Hugo Chávez, the country's newfound, ideologically aligned financial patron. By the 2011–13 period, life expectancy reached its historical high (78.5 years at birth for both sexes combined), as the infant mortality rate allegedly declined to less than 4 deaths per 1,000 live births, its lowest level ever, remaining at that level until 2018. Fertility experienced an uptick, reversing a secular downward trend aided by nearly universal accessibility to modern contraceptives and safe abortion procedures, following a sharp dip under the strains of the crisis (Díaz-Briquets 2014).

Although cumulative estimates of Venezuelan economic assistance are unavailable, it appears that during some years the amounts may have rivaled or even exceeded the assistance provided by the Soviet Union. Mesa-Lago (2019), by combining revenues accruing to Cuba from physician and other professional service exports to the country, oil subsidies, and commerce in other goods, other than direct Venezuelan investments, concluded that implied subsidies may have peaked at US\$16 billion in 2012, only to decline by half, to about US\$8 billion in 2017. As Venezuelan subsidies declined, and despite years of rising foreign revenues generated by the tourist industry, migrant remittances, and the sale of international (medical and other) services abroad,

⁸It is difficult to estimate with exactitude the number of departures at specific time periods, as many who fled Cuba to other countries eventually managed to settle in others, as was the case with some of the early 1960s refugees who, after traveling to Spain or Latin America, found their way to the United States. Such was the case as well with thousands of people who in 1980, after entering the Peruvian Embassy in Havana, were flown to Peru and Costa Rica, among other countries. In due course, most also managed to resettle in the United States.

signs began to emerge of an economic retrenchment attributable to continued poor performance of the centrally dominated economy. Causes contributing to the downturn were difficulties sustaining previous levels of international medical and social services sales (e.g., Brazil ending its Pan American Health Organization-sanctioned medical export program), strengthening U.S. economic sanctions, and, ultimately, the COVID-19 pandemic. Agricultural production faced mounting difficulties as input shortages developed and because of the leadership's decision to drastically downsize the sugar industry, for two centuries the mainstream of Cuba's economy. In 2020 alone, just as the pandemic was starting, GDP fell by 10.9 percent, growth declining on a 3.3 percent annualized basis between 2019–21. Russia's invasion of Ukraine just added to the misery. As of mid-2023, the economy had barely recovered to its 2018 level, growing at 1.3 percent, close to its 2009–18 1–2 percent average, well below its 12.1 percent 2006 peak (Mesa-Lago 2023a:3–6).

The consequences have been catastrophic. Gross capital formation has suffered, as has the production of most goods and services, with foreign trade, including services, also declining substantially. With practically every economic sector under stress, the demand for foreign imports has dramatically risen, but not the resources to pay for them, particularly food items the country heavily depends on. Making matters worse, a series of ill-conceived and poorly implemented economic reforms, some intended to do away with the use of multiple currencies, have unleashed an inflationary tsunami, in some periods reaching between 270% and 740%, currently running at close to 50% per annum. By late 2022, the informal market exchange rate of the Cuban peso against the U.S. dollar rose to 175, whereas in the official market it rose from 24 in 2021, to 175 in late 2022, and to 200 by mid-2023 (see, among others, Mesa-Lago 2023a; de Miranda Parrondo 2023; Morales 2023).

Clinging to long-held ideological dictates preventing the regime from implementing consequential economic reforms and claiming the ones contemplated were consistent with centralized and state-controlled directives, the authorities embraced what has been officially dubbed as “continuity,” implying modest reforms within the existing economic framework. Among other changes were the already mentioned and long-overdue monetary reform to minimize economic distortions, and authorization to establish small and medium enterprises and non-agricultural cooperatives, while liberalizing self-employment rules. Despite the pandemic-induced global collapse of the tourist industry, and stubbornly low hotel occupancy rates, massive investments (in new hotels) continue to be made to the detriment of desperately needed resources in the

failing public health sector (Mesa-Lago 2023b; Mesa-Lago and Díaz-Briquets 2021). Further, and to attract foreign exchange, mostly in the form of migrant remittances, a retail store network was established to sell mostly imported goods in hard currency.

Considerable upward salary and pension nominal adjustments accompanied the monetary reform process but were not sufficient to keep pace with inflation. In dollar terms, most salaries fluctuate between twenty and forty U.S. dollars per month, while pensions barely reach fifteen U.S. dollars. Such average incomes fall short of what is required to satisfy basic necessities, even when purchasing essentials through the rationing system. A minority of the population with access to migrant remittances or hard currency by virtue of tourist sector employment (e.g., earning tips) fares better. In both instances, mostly White Cubans benefit the most (Kitroeff 2010), despite enduring health, social, and residential skin color differentials, notwithstanding decades-long attempts to portray revolutionary Cuba as a racially equitable society. These differentials in access to foreign remittances and better-paying jobs give rise to widening income inequalities (Castro 2003; Ramonet 2006). According to unofficial estimates, the Gini coefficient, which in 1988 stood at .25, by 2005 had worsened to .45; currently it may be approaching .60 (Valdés Nava 2023).

An unfolding development, and what it may portend for Cuba's future, is premised on promised Russian assistance to transform the country's economic institutional structure. According to press reports (see, among many others, Pandey 2023; Gámez Torres 2023; *14ymedio* 2023; Rojas 2023), in January 2023, both nations' governments agreed to establish a Havana-based Economic Transformation Center with technical input from a leading Russian economic think tank, the Stolypin Institute of Growth Economics, named after Tsar Nicholas II's prime minister in the early twentieth century. More recently, hand-picked Cubans, often in partnership with Russian nationals, are reputedly assuming ownership, in an opaque fashion, of all sorts of state-owned enterprises, occasionally following announcements of upcoming privatization tenders. A Russian trading exchange will soon open in Havana, as Russian banks will be authorized to operate in the country conducting business in rubles. Russian investors will also be granted leases of agricultural land for periods of up to thirty years, a privilege denied ordinary Cubans, just as Russian investors promise to reactivate a moribund national steel industry.

Some fear that the bilateral collaboration will result in the evolution of a socioeconomic model distinct from socialism and akin to what Naím and Toro (2021) and others have

derided as a “mafia state,” similar to Russia’s current system, controlled by a powerful unaccountable oligarchy. Some observers, however, regard this development as no more than a temporary marriage of convenience: a sign of desperation by a Cuban government seeking a way out of a bottomless economic crisis and an attempt by an internationally isolated Russia to strengthen one of its few remaining alliances. The economic and social implications of what this collaboration signifies for Cuba are not discernable at this time but are unlikely to reverse over the short-term the downward economic spiral.

03

EMIGRATION: THE MOST VISIBLE DEMOGRAPHIC OUTCOME

Cuba is the quintessential nation utilizing emigration to achieve political and economic ends. Orchestrated by the government with certain regularity, always within the context of contentious relations with the United States, these occasional large-scale, unregulated emigration flows have served the dual purpose of, first, diffusing domestic economic, political, and social tensions, and second, forcing the northern neighbor to engage in a political dialogue, usually concerning Cuba's priority political objectives. The first such incident occurred, as noted, in 1965 when President Fidel Castro announced that vessels sailed by Florida-based exiles would be allowed to enter the port of Camarioca to board and take disgruntled citizens unhappy with the country's political course to the United States. While less than three thousand managed to depart in two months, many more remained behind, eventually reuniting with their relatives in Florida. But the Camarioca incident led to the negotiation that culminated with the Freedom Flights, a bilateral accord through which 260,561 Cuban parolees arrived in the United States. Some estimates suggest that over that same time period (1966–1973), as many as 73,000 additional Cuban nationals departed as well to other foreign destinations (Schroeder 1982). In both instances, emigration tensions were fomented by political dissatisfaction, a deteriorating economy, and unhappiness among families that had been separated. The departure of hundreds of thousands, by relieving domestic pressures, was reminiscent of a long-established East German practice (Hirschman 1993), as it also provided Havana with a respite by alleviating labor market pressures and housing shortages (Díaz-Briquets and Pérez 1981; Greenhill 2010).

These two incidents, which convinced Havana it could use emigration as a tool to force negotiations in favorable terms with a reluctant United States, would be relied upon time and again whenever Cuba faced a pressing domestic crisis. The 1980 Mariel exodus readily comes to mind. In this instance, the lifting of a ban on émigré visits—in place since the 1960s—convulsed many in an austere society no longer accustomed to the returnees' display of economic well-being and renewed family contacts. Following a mass breach of the Peruvian Embassy in Havana by more than 10,000 asylum seekers, Havana again invited émigrés to come fetch their relatives. Just 126,407 Cubans left from Mariel in less than seven months. It was a disorderly and chaotic exodus that,

while again relieving Cuban domestic tensions, fueled an anti-immigration firestorm in the United States, furthered by the contemporaneous arrival of Haitian boat people.

While Camarioca, the Freedom Flights, and Mariel responded primarily to the domestic tensions produced by the ideological, political, economic, and social transformations embedded in the first two postrevolutionary decades, the 1994 and 2022–23 emigration occurrences were qualitatively different; they were symptomatic of the inability of the autocratic, top-down, socialist-oriented politico-economic system to satisfy basic human needs absent external financial subsidies. Not coincidentally, the 1994 outflow occurred in the midst of the Special Period as Cuba's economy approached a breaking point after Soviet subsidies ended. This time, rioting in Havana's waterfront promenade, the *Malecón*, caused President Fidel Castro to invite those who wanted to take to the sea to do so whichever way they could: 32,263 rafters or *balseros* did so in August and September 1994 (del Castillo 2014). Facing another crisis, Washington reluctantly returned to the negotiation table and agreed—in exchange for Havana's acquiescence to stem the rafters' outflow—to implement the “wet foot-dry foot policy,” whereby Cubans intercepted at sea would be repatriated while those reaching land would be allowed to stay in the United States. Importantly for Havana's purposes, under the ensuing 1994 U.S.-Cuba Migration Accord, Cuba was assured of twenty thousand immigrant visas a year, a privilege not accorded to any other country by the United States.

But by far the largest-ever mass departure from Cuba took place between 2021 and 2023, still ongoing as this paper is drafted, when nearly 425,000 headed to the United States and other countries around the world (see Table 2). This time, another serious economic crisis provided the impetus, which culminated in an unprecedented eruption of riots along the length of Cuba in July 2021, inspired by consumer goods shortages, an inflationary spiral, the COVID-19 pandemic and associated social confinement, and strengthened U.S. sanctions. To complicate matters, the deep contraction followed a period over which the Cuban economy, thanks to Venezuelan subsidies, growing tourist arrivals, and increasing migrant remittances had had some relative prosperous years following the Special Period's despair. Orchestrated by Havana again, in implicit coordination with Nicaragua, its regional ally, Managua granted visa-free entry to Cubans in November 2021, thus easing their transit overland to the U.S. border through Central America and Mexico. Hundreds of thousands, often with financial backing from relatives abroad, took the challenge and joined other migrant caravans escaping poverty or political intolerance—often both.

Table 2. Net Migration: Cuba, Selected Years and 1990 to 2022

Year	Net Migration	Year	Net Migration
1960	-62,379	2004	-35,429
1965	-18,003	2005	-33,348
1970	-56,404	2006	-35,276
1975	-2,891	2007	-32,811
1980	-141,742	2008	-36,903
1985	-8,164	2009	-36,564
1990	-5,352	2010	-38,165
1991	-3,800	2011	-39,263
1992	-5,604	2012	-46,662
1993	-3,303	2013	-3,302
1994	-47,844	2014	-1,922
1995	-33,648	2015	-24,684
1996	-20,552	2016	-17,251
1997	-21,000	2017*	-26,194
1998	-26,799	2018*	-21,564
1999	-31,224	2019*	-16,794
2000	-29,322	2020**	-15,258
2001	-33,043	2021**	-54,918
2002	-30,985	2022**	-313,488
2003	-28,675	2023**	-108,529

* Official emigration estimates grossly underestimate their true magnitude.

**Figures exclusively refer to U.S. entrants.

Sources: for 1970 to 2019, ONEI 2022, Table 6.2; for 2020 to 2023, U.S. Customs and Border Patrol 2023.

Among other aspiring U.S. entrants were countless Venezuelans, fleeing a collapsed economy, as well as Nicaragua natives, pushed from their countries, as from Cuba, by similar systemic failures. A Washington overwhelmed by the disorderly approach of multitudes of desperate people had no choice but to negotiate with Havana again for the orderly processing of immigrants—formal immigration and visitor visa application procedures having been suspended by the Trump Administration during the pandemic. While these mechanisms (e.g., processing of immigrant and tourist visas in Havana rather than in other countries; compliance with the commitment to grant Cubans twenty thousand immigrant visas annually) would be gradually reintroduced, Washington also announced new policies for prospective border crossers to apply for and receive temporary entry permits (applications submitted via a website and access to U.S.-based sponsors) to better manage and control the flows.

The latter rule applied not only to Cubans but also to prospective Haiti, Nicaragua, and Venezuela migrants.

One important difference between the 2021–23 Cuban irregular migration incident and preceding ones is that Havana had a further ulterior motive, having recognized the significant gains the country could realize from migrant remittances. An implicit objective was increasing the number of remittance senders, as Havana explicitly laid the groundwork to allow people to depart. The policy shift away from constraining as opposed to encouraging emigration began in 2013, when Havana reformed migration protocols that previously had severely restricted international travel and penalized emigrants by confiscating their homes and other possessions upon leaving the country (Consejo de Estado 2012). Among other reforms that followed, was the announcement in 2023 that a Cuban passport renewal fee would be reduced to correspond with what other countries charge and that Cuban residents abroad would no longer be required to obtain a costly renewable return permit, both major sources of discontent in the émigré community (*Cubadebate* 2023a). These reforms were enacted seeking to strengthen linkages between émigrés—particularly more economically motivated recent émigrés—and relatives at home. As if by magic, a government that for decades had interfered with the sustenance of family bonds through draconian regulations⁹ reversed course and embraced far more accommodating policies. In this, as in many other policy realms, a 180-degree course correction was adopted based on the expected financial benefits a bankrupt nation, newly committed to the promotion of a transnational Cuban identity, could receive (Caraballoso 2023).

This brief review of Cuba’s emigration history since the 1960s demonstrates a direct relationship between periodic yet systemic crises arising from the workings of a sputtering sociopolitical and economic system and emigration—a leading determinant of changes in a population’s demographic evolution.

⁹ From the early 1960s until the 1970s, for example, it was virtually impossible for émigrés to return even for family funerals or visits, while those in Cuba were discouraged from communicating with their relatives abroad to demonstrate their revolutionary fervor.

04

HISTORICAL MORTALITY TRENDS AND THE PERSISTENCE OF SOCIOECONOMIC DIFFERENTIALS

As may have been anticipated, the mortality responses to the systemic crises experienced in Cuba were predictable and reactive to external resource availability. When resources were sufficient to prop up the basic health infrastructure and provide the population with adequate nutritional intake, mortality declines ensued. Prior to 1959, life expectancy gains tracked rather well with global public health and medical developments (e.g., availability of modern antibiotics) and were responsive to economic growth (Díaz-Briquets 1981). In this respect, the prerevolutionary mortality trajectory was unexceptional, as it evidenced a strong correlation with economic development, as described by Preston (1975).

By the 1960s, policies designed to minimize socioeconomic differentials liable for class and regional disparities in well-being, including access to health care, were instrumental in narrowing mortality gaps between formerly marginalized communities and the most privileged. These consequential achievements garnered much attention and international praise for the revolutionary government, as they seemed to suggest that with proper social policies, namely a fairer income distribution, the connection between economic performance and mortality could be severed. And while this was partly the case, later developments would demonstrate that the argument was not as robust, as important explanatory variables had been left out of the equation.

In a series of studies, Albizu-Campos Espiñeira (2014, 2019, 2022) has evaluated how various mortality components evolved in Cuba over time. A consistent finding has been that mortality declines have responded favorably to resource availability: when scarce in a context of arrested socioeconomic development, declining mortality trends suffered accordingly. The studies suggest that even when external financial resources were plentiful (the Soviet years, 1960–91), they were not sufficient, or allocated efficiently enough, to erase existing racial and socioeconomic disparities predating the revolution, despite claims they had been eliminated. Whenever external resources declined, overall health standards suffered, but more acutely among the most disadvantaged. This led Albizu-Campos Espiñeira (2019:147) to reaffirm with Cuban data a conclusion reached by researchers considering other countries' experiences—that continuous health

achievements, as measured by demographic indicators, are unlikely in a slow-growing economy with low standards of living.

Our discussion continues with an examination of the secular behavior of the three key demographic indicators shown in Table 1: life expectancy at birth (both sexes combined, LEB), infant mortality rate (IMR), and maternal mortality ratio (MMR) from 1960 (shown quinquennially to 1990) to 2021.¹⁰ Their secular behavior confirms that during the early postrevolutionary period, social policies designed to redress past living conditions and access to service socioeconomic differentials, facilitated by an ample availability of external financial resources, achieved their desired objectives. In a three-decade period, LEB increased by 16%, from sixty-four years in 1960 to seventy-four years in 1990, as Soviet support came to an end. During the same period, the IMR declined by a remarkable 83.8%, from 62.3 to 10.1. Less dramatic, but equally impressive, was the decline in the MMR, as it dropped by 40.6%, from 70.4 in 1970 to 41.8 in 1990.

The trend data seem to contradict our hypothesis that foreign subsidies, aside from other policy interventions, were behind the health advances captured by the demographic indicators; it is well established that the Special Period's economic aftermath was devastating. Not only were there severe food, medicine, and consumer good shortages, but the economy came to an excruciating halt due to shortages of many essentials, ranging from fuel to machinery, whose availability vanished overnight. Power shortages were routine. A notorious outbreak of neuropathy, a nutritional deficiency, resulted in the temporary blindness of some fifty thousand people. During the Special Period, lasting for much of the decade, the GDP declined by nearly 40%, the economic contraction being at its worst in 1993 when the GDP fell by 14.9%. Yet, except for a small LEB decline in 1993–94, and an equally minor increase in the MMR in 1994–95, mortality indicators remained stable or actually resumed their downward trajectory, before the decade was over. More remarkable was the IMR trend as, despite the crisis, it declined by 32% during the decade, from 10.12 to 6.9 infant deaths per 1,000 live births.

Whether or not the official reported rates accurately reflect the behavior of the indicators has never been satisfactorily explored but, on the face of what is

¹⁰ Mortality rates were estimated on a triennial basis pivoted around each interval's central year.

known about the economic suffering endured in the country during that terrible decade, a degree of skepticism is warranted. The official IMR trend during the 1990s is particularly problematic, as its behavior was anomalous in light of the depth of the economic crisis and associated shortages, as well as the responses of other demographic indicators. Fertility acted as could have been predicted, women curtailing their childbearing behavior, the birth rate declining by 27% between 1990 and 1996 (the actual number of births dropping by 46,000 during the same period, from 186,000 in 1990 to 140,000 in 1996, or by 25%). Facing modern contraceptive method shortages and unwilling to give birth during the crisis, Cuban women limited their fertility by heavily relying on induced abortions; between 1990 and 1996 the number of abortions exceeded the number of live births, a pattern that would reemerge a decade later when, during the mid-2000s, Cuba again would face tough economic times (Albizu-Campos Espiñeira 2013:15).

One likely explanation for the remarkable IMR decline was that beginning in the mid-1980s, the practice of testing all pregnant women for evidence of fetal genetic abnormalities followed by rigorously enforced medically recommended abortions became widespread in a country where the practice is liberally used. This alone would partially account for the declining trend. But perhaps even more determining may have been the misclassification of infant deaths as false stillbirths by health care providers who, under intense political pressure, did what they had to do to comply with a government directive assigning upmost priority to reducing the national IMR—repeatedly emanating from Fidel Castro himself. In Cuba’s revolution, according to Castro, public health occupied a “sacred” position (Castro Ruz 1981). In the leadership’s view, outperforming the United States in lowering the IMR represented a symbolic statistical health battlefield victory of Cuban socialism over “imperialism” (Díaz-Briquets 1986).¹¹ This unofficial policy directive has been corroborated by private testimony of well-placed on-the-ground observers of the health sector who through

¹¹ The significance Fidel Castro gave to lowering the IMR and to overall health care and mortality indicators can hardly be overestimated. The weight of his views and directives on these matters, emanating as they did from an all-powerful charismatic leader, determined the course to follow. In 1975, during an address to the first congress of the Cuban Communist Party, he indicated the need to struggle intensively to “reduce the infant mortality rate,” a call he would emphasize five years later when the second congress was held. On that occasion, he alluded to the need “to continue developing the tasks designed to consolidate progress made in tackling infant mortality” (Castro Ruz 1975 and 1980). Again and again, as in 1981, he came back to the topic describing in multiple and lengthy speeches accomplishments and expectations (Castro Ruz 1981). Health achievements became as symbolic of revolutionary accomplishments as Olympic victories, showcase indicators of presumed superior socioeconomic and political systems, international perspectives Cuba liked to project just as much as East Germany and other Soviet Bloc countries did.

open-ended interviews and anecdotal accounts have confirmed that such behavior was and continues to be prevalent today.

However, beyond those accounts, there is convincing statistical evidence that due to a common Cuban medical practice, likely influenced by the same political consideration, for decades the true level of the country's IMR has been conspicuously underestimated. González and Gilleskie (2017) concluded, by comparing the Cuban distribution of late fetal and early neonatal deaths against similar distributions in data sets gathered for twenty-six European countries as part of the EURO-PERISTAT study, that in 2004 the actual—as opposed to the reported—Cuban IMR probably ranged between 9.04 and 10.11 infant deaths per 1,000 births, rather than the reported 5.79. The finding suggests that from 36% to 46% of all infant deaths in the country were misreported as late fetal deaths when, in fact, they should have been classified as early neonatal deaths. This finding, together with the growing practice since the 1980s of aborting all women carrying genetically defective fetuses, goes a long way towards explaining the declining IMR, when the trend may not have been necessarily driven by health care improvements, despite significant efforts to prioritize the maternal-infant health care program.

If the facts described above were not sufficient to cast doubt on the authenticity of the reported infant mortality trend, there is still another disconcerting red flag: that is, the disconnect between the reported IMR and LEB trends. It is generally the case that these two trend values are inversely related: as the IMR curve declines, the LEB curve rises.¹² As can be noted in Table 3, this common relationship—to our knowledge not reported for any other national population—does not hold in Cuba's case. Particularly apparent is the disconnect between 2001 and 2018 when, despite a 38% percent assumed decline in the IMR, the LEB remained virtually unchanged. While age-specific mortality increases for certain degenerative diseases particularly prevalent among the elderly may have served as a counterweight to the IMR decline (Albizu-Campos Espiñeira 2014:136–48), other factors may have been implicated as well. Such disease and age-specific mortality increases appear to have begun as early as the mid-1980s as the highest then attainable LEB level was being reached. The increases may have resulted from and were aggravated by the neglect and/or reversal of efficiency-

¹² This inverse relationship is embedded in all model life tables, regardless of regional family, found in Coale and Demeny 1966.

inducing practices, including privatization experiments such as self-employment, across all areas of the economy, as the leadership sought to recapture a “purer” and more orthodox socialist ethos—the so-called Process for the Rectification of Errors and Negative Tendencies (*Proceso de Rectificación de Errores y Tendencias Negativas*). The rectification campaign arose as a response to and in order to mitigate the domestic consequences of the initial Gorbachev *perestroika* and *glasnost* reforms in the Soviet Union, already beginning to adversely percolate—from the leadership’s perspective—within Cuba. Regardless of the line of causation, the anomaly between the divergent LEB and IMR remains puzzling and worthy of further study.

While these considerations may not be conclusive enough to definitely dismiss the accuracy of the reported IMR trend, they are complementary to and reinforce what we definitely know about the contemporaneous behavior of other demographic indicators. On these bases alone, we are forced to cast doubt on the assumed accuracy of the reported IMR trend, particularly during the 1990s.

05

ECONOMIC AND DEMOGRAPHIC RECOVERY

As the Cuban economy partially recovered from the 1990s devastation, the LEB recovered some of its lost ground, a development buoyed by the relative economic improvements made possible by Venezuelan subsidies and modest economic reforms. However, it did so only modestly, not regaining its prior sustained declining pace. This may have reflected a ceiling effect given difficulties associated with realizing further mortality gains at the highest life expectancy levels, due to the more intractable nature of chronic and degenerative diseases. But between 2019 and 2021, even before the pandemic, the LEB again entered into a downward sloping trajectory: over this three-year interval it declined from 77.6 to 71.2, a six-year loss, returning Cuba to 1975 LEB levels (Albizu-Campos Espiñeira 2023).

The Gross Domestic Product stabilized at a negative 1.3% growth rate between 2016–20. In 2020 the GDP fell an additional 10.9%, the decline averaging –3.3% between 2019–21, just as the pandemic hit the hardest (Mesa-Lago 2021, 2023a). LEB declines coincided with the closing of multiple health installations between 2007 and 2018 (32.4% of national hospitals, including all rural hospitals; 8.6% of polyclinics, plus all health posts) with a corresponding decline of 5% percent in hospital beds, overall health care expenditures declining 18% between 2009 and 2018 (Mesa-Lago and Díaz-Briquets (2021).

Undoubtedly, excess COVID-related mortality influenced the trend accounting for as much as half of LEB losses. This became evident despite official public relation efforts to minimize the pandemic’s impact, claiming that Cuba had the disease under control, the country having one of the world’s lower infection rates when, in fact, several assessments concluded the opposite.¹³ The public relations campaign had the dual economic intent of preventing foreign tourists from staying away and marketing domestically produced COVID vaccines to other developing countries. The usefulness

¹³ *The Economist* estimated that rather than the 8,529 COVID-related deaths officially reported by Cuba as of August 2022, 62,000 deaths had occurred, a 600% increase over the reported toll. The revised death toll “would place [Cuba] among the 20 worst countries in the world” (*The Economist* 2022).

and reliability of the vaccines still remain to be validated by the World Health Organization and therefore expected sales of Cuban COVID vaccines fell far short of generating the economic dividend hoped for by the authorities.

A closer understanding of the underlying mortality trend opened up with the availability of mortality data for 2008 to 2018 by sex and skin color, as they allow for the estimation of LEB, IMR, and MMR for consecutive triennial periods.¹⁴ As shown in Table 3, LEB gains for the Cuban population as a whole (all racial categories combined) persisted until the 2012–14 triennium, but then ceased.¹⁵ The aggregated statistics conceal a major divide by skin color as, on average, White Cubans, regardless of gender, continued enjoying during the interval a consistent six- to seven-year LEB advantage over Black Cubans. Curiously, the highest estimated LEB were found among mixed race Cubans—even higher than among Whites—a probable confounding reflection of racial ascription differences between self-reports to census/survey enumerators and assignment of race/skin color by public health personnel filling death certification forms. However, the mixed race IMR trend fails to show a comparable pattern as it occupies a middle ground between the White and Black trend lines. Almost invariably, except for Blacks, the female IMR is lower than the male IMR.

¹⁴ Mortality data by race/skin color and other demographic variables had ceased to be released in the early 1970s. It became available again in the early 2000, but only for researchers with official privileged access.

¹⁵ For details regarding the derivation of the triennial estimates and how racial/skin color determinations from death certificates were handled, see Albizu-Campos Espiñeira 2022.

Table 3. Cuba. Life Expectancy at Birth and Infant Mortality Rate, by Sex and Skin Color. Selected Trienniums. 2002-2004 to 2016-2018.

Indicator	Sex	Color	Trienniums						
			2002 -2004	2003 -2005	2004 -2006	2005 -2007	2006 -2008	2007 -2009	2008 -2010
Life expectancy at birth (in years)	Males	All males	75.81	75.63	75.79	76.05	76.30	76.26	76.12
		White	76.41	76.17	76.38	76.63	76.80	76.74	76.64
		Black	69.34	69.28	69.47	69.77	70.21	70.32	69.92
		Mixed race	78.25	78.23	78.39	78.64	78.86	79.02	78.75
	Females	All females	79.79	79.54	79.78	80.01	80.21	80.10	80.01
		White	80.38	80.16	80.42	80.61	80.69	80.50	80.46
		Black	73.40	73.31	73.69	74.16	74.51	74.57	74.21
		Mixed race	81.89	81.46	81.58	81.87	82.26	82.38	82.24
	Both sexes	Total	77.76	77.55	77.74	77.99	78.21	78.13	78.05
		White	78.37	78.15	78.36	78.59	78.73	78.57	78.55
		Black	71.20	71.10	71.42	71.81	72.08	72.30	71.87
		Mixed race	80.07	79.85	80.00	80.27	80.60	80.71	80.52
Infant mortality rate (per 1,000 live births)	Males	All males	6.51	5.89	5.30	4.85	4.46	4.60	4.71
		White	5.53	4.87	4.31	3.93	3.64	3.70	3.79
		Black	15.09	12.52	10.36	8.54	9.70	9.68	9.65
		Mixed race	7.47	7.40	7.06	6.67	5.75	6.14	6.32
	Females	All females	4.97	4.85	4.24	4.10	3.76	3.84	3.72
		White	4.05	3.87	3.53	3.34	3.19	3.11	2.94
		Black	14.20	12.77	9.18	7.40	6.36	7.34	7.37
		Mixed race	5.72	6.04	5.30	5.57	4.84	5.21	5.23
	Both sexes	Total	5.76	5.38	4.79	4.48	4.12	4.23	4.23
		White	4.81	4.38	3.93	3.65	3.42	3.41	3.38
		Black	14.67	12.64	9.81	8.00	8.14	8.59	8.59
		Mixed race	6.61	6.74	6.20	6.13	5.31	5.68	5.79

Indicator	Sex	Color	Trienniums							
			2009 -2011	2010 -2012	2011 -2013	2012 -2014	2013 -2015	2014 -2016	2015 -2017	2016 -2018
Life expectancy at birth (in years)	Males	All males	76.30	76.41	76.50	76.24	75.96	75.85	75.63	75.56
		White	76.87	77.06	77.18	76.97	76.67	76.60	76.39	76.40
		Black	70.28	69.97	69.97	69.51	69.33	69.27	69.09	68.74
		Mixed race	78.78	78.73	78.68	78.30	77.99	77.82	77.57	77.36
	Females	All females	80.29	80.50	80.60	80.40	80.11	80.08	79.98	80.02
		White	80.79	81.02	81.10	80.94	80.73	80.68	80.65	80.70
		Black	74.26	74.23	74.50	74.32	74.10	74.08	73.61	73.48
		Mixed race	82.42	82.41	82.36	82.07	81.76	81.84	81.71	81.80
	Both sexes	Total	78.24	78.40	78.51	78.27	77.99	77.92	77.75	77.72
		White	78.82	79.00	79.12	78.92	78.65	78.59	78.47	78.50
		Black	72.10	72.04	72.22	71.84	71.50	71.43	71.20	70.94
		Mixed race	80.59	80.57	80.52	80.18	79.87	79.82	79.62	79.55
Infant mortality rate (per 1,000 live births)	Males	All males	4.98	4.95	4.70	4.40	4.45	4.28	4.04	4.01
		White	4.13	4.18	4.17	3.82	3.92	3.69	3.41	3.19
		Black	8.40	10.62	10.61	10.63	9.99	9.08	8.71	10.52
		Mixed race	6.65	6.07	5.12	4.90	4.96	5.09	4.97	5.13
	Females	All females	3.85	3.71	3.74	3.38	3.50	3.36	3.39	3.30
		White	3.01	3.01	3.01	2.86	2.90	2.96	2.90	2.80
		Black	9.27	9.11	9.58	9.08	9.78	8.72	7.01	9.34
		Mixed race	5.24	4.73	4.78	3.92	4.17	3.65	4.16	3.80
	Both sexes	Total	4.43	4.35	4.23	3.91	3.98	3.83	3.72	3.66
		White	3.59	3.61	3.61	3.36	3.42	3.34	3.16	3.00
		Black	8.80	9.92	10.14	9.92	9.90	8.91	7.93	9.98
		Mixed race	5.96	5.41	4.95	4.42	4.57	4.38	4.57	4.48

(*) Expected deaths per every 1,000 individuals exposed to the risk of dying according to the probability of death at the calculated zero death. 2002, 2012.

Sources: Albizu-Campos E., J.C., estimated based on data provided in ONEI, *Anuario Demográfico de Cuba* and DNE-MINSAP, Death certificates data base., respective years.

Disparities between White and Black estimated IMRs are quite significant, the latter being consistently three times higher than among the former. All three racial categories combined show a declining IMR trend, a pattern duplicated for the White and mixed-race population components, but not for Blacks. It is tempting to assume that the divergent patterns respond to historically ascribed race advantages, more so among White Cubans than among those of mixed-race.

An even more revealing perspective on the mortality racial/skin color divide can be gained by examining maternal and adolescent maternal mortality trends (as measured through probabilities of dying estimates) from the combined effects of pregnancy, delivery, and puerperium (deaths occurring within forty-two days after childbirth) complications between 2002 and 2018, as shown in tables 4 and 5. According to these probabilities, maternal mortality risks for White women of all ages were five to six times lower than for Black women. While White women's probabilities were relatively stable over time, they were on the rise for Black women by the early 2010s, the White-Black disparity widening over time. Contrary to the situation with the race/skin color LEB and IMR, no appreciable differences in maternal mortality risks surfaced between White and mixed-race women.

Table 4. Cuba. Female Mortality per 100,000 Women by Skin Color due to Complications of Pregnancy, Delivery and Puerperium, 2002-2018

Three-years	Skin Color			All Women
	Whites	Mixed Race	Blacks	
2002-2004	66.57	79.77	186.79	81.81
2003-2005	66.69	74.53	255.40	86.51
2004-2006	63.35	74.28	293.74	87.39
2005-2007	59.89	60.51	295.77	81.66
2006-2008	57.04	63.09	235.29	74.54
2007-2009	61.19	56.54	252.84	77.74
2008-2010	64.90	64.22	267.44	82.70
2009-2011	70.95	58.26	313.60	88.24
2010-2012	64.18	63.87	277.40	81.14
2011-2013	63.02	63.17	307.90	83.04

Three-years	Skin Color			All Women
	Whites	Mixed Race	Blacks	
2012-2014	57.21	61.57	316.87	78.74
2013-2015	67.34	58.91	323.82	85.89
2014-2016	69.32	56.22	318.29	85.94
2015-2017	68.61	68.46	308.46	88.24
2016-2018	57.77	77.49	343.90	87.24

Expected value of deaths per 100,000 women exposed to the risk of dying between 15 and 49 years of age, calculated according to the probability of death due to complications.

Similar race/skin color differentials in death probabilities for adolescent women related to pregnancy, delivery, and puerperium complications recur in Table 5, other than for White adolescent women who were even less likely to be exposed to the risk of dying than their Black counterparts. Quite clear is the ascending probability of dying trend for adolescent Black women, even though probabilities for adolescent mixed-race women consistently were well below those for Whites. The latter result is suspect and may have been produced by race/skin color assignment biases or result from statistical variances caused by a limited number of cases. The differential racial/skin color behavior across the several mortality indicators demonstrate, despite frequent claims to the contrary, that long-standing socioeconomic racial/skin color disparities have not been eradicated and may actually be worsening, as the existing socioeconomic system continues to be engulfed in recurrent and deepening crises.¹⁶

Table 5. Cuba. Adolescent Female Mortality by Skin Color per 100,000 Adolescent Women Due to Complications of Pregnancy, Delivery, and Puerperium, 2002-2018

Three-years	Skin Color			All Women
	Whites	Mixed Race	Blacks	
2002-2004	4.72	9.87	9.87	6.87
2003-2005	7.73	7.30	19.75	8.59

¹⁶ History and the inability to overcome past socioeconomic differentials explain the persistent of these trends, along with place of residence and educational achievement disparities.

Three-years	Skin Color			All Women
	Whites	Mixed Race	Blacks	
2004-2006	5.58	6.01	25.76	7.30
2005-2007	8.16	3.00	31.78	8.59
2006-2008	6.01	1.72	38.21	7.30
2007-2009	8.16	1.72	50.23	9.87
2008-2010	5.15	1.72	46.37	7.30
2009-2011	4.72	1.72	53.67	7.73
2010-2012	1.72	3.00	30.92	3.86
2011-2013	3.00	3.00	31.78	4.72
2012-2014	3.00	1.72	25.76	3.86
2013-2015	8.16	1.72	59.24	9.87
2014-2016	9.87	3.43	67.40	12.02
2015-2017	9.87	3.43	62.68	12.02
2016-2018	6.87	1.72	49.80	8.59

Expected value of deaths per 100,000 adolescent women exposed to the risk of dying between 15 and 49 years of age, according to the probability of death due to complications of pregnancy, childbirth, and puerperium calculated.

Source: Albizu-Campos Espiñeira and Varona Pérez 2022.

06

SUMMARY AND IMPLICATIONS

The longitudinal assessment of more than sixty years of implementation in Cuba of a market-averse, socialist-oriented political and socioeconomic system leads to the conclusion that whenever it counted with an abundance of external financial resources, it performed relatively well in those social policy dimensions amenable to measurement via demographic indicators. While adequately funded, despite the negative consequences of U.S.-imposed economic sanctions, life expectancy increased, as the infant mortality rate declined. Despite the Soviet Union's financial generosity, and positive social policy intentions, the weight of history could not be erased as long-standing racial and residential quality of life differentials have persisted to this day. Emigration has repeatedly served as a blunt policy lever whereby the country's government, whenever it has faced systemic policy challenges, has succeeded in controlling internal discontent by exporting the disaffected, while successfully cajoling Washington to engage in a policy dialogue. Growing evidence suggests that the system is approaching a perilous stage at which, absent a foreign patron, mounting socioeconomic and demographic difficulties urgently call for radical economic, political, and social policy reforms if Cuba is to provide its citizens a less conflictive and more prosperous future.

07

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