

REVIEW ESSAY

Island Demography: A Review of Selected Caribbean Contributions

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Abstract: This article traces the demographic contributions of island studies scholarship in four sections. First, demographic transition theory is applied to the population history of the region. The second highlights the impact of this demographic scholarship on related social science fields in the Caribbean. The third and fourth contributions focus on the impact of migration on two related hypotheses: the demographic transition and the mobility transition. In the first case, migration patterns between St. Kitts-Nevis and the U.S. Virgin Islands in the 1960s suggest that the age-sex selectivity of migration tends to accelerate the transition in sending societies and retard its progress in receiving societies. In the second case, empirical support is provided for the so-called 'migration transition' whereby former chronic labour exporters become labour importers under sustained growth.

Keywords: Caribbean; demographic transition; fertility; islands; migration; mortality

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Introduction

The important point in terms of demographic analysis—and probably in terms of all analysis—is that the micro-states are not just smaller versions of macro-states. They have very special characteristics of their own (Caldwell *et al.*, 1980: 954).

The evolution of island studies over recent decades owes much to its biological and anthropological roots, including the classic works respectively of Darwin (1859) and Wallace (1881) and their heirs MacArthur and Wilson (1967), as well as Mead (1928) and Malinowski (1929). Similarly, the acceleration of this new multidisciplinary subfield, and especially island demography, owes much to the 1980 publication of the *World Development* special issue dedicated to islands that has inspired subsequent writers to further explore the unique behaviour of insular populations. The long-term fascination of researchers with island demography derives in part from the visible sensitivity of small populations to boom-bust economic cycles, political upheavals, and natural and biological disasters. In short, island demographic behaviour through time very often provides an important proximate record of island history since one can infer that history right off the pattern of demographic change.

This article traces the demographic contributions of island studies scholarship in four sections. The first reviews the pioneers who applied the demographic transition model to Caribbean populations from European settlement to the present. Despite criticism of its inability to predict turning points, this model—which traces the path from high to low fertility and mortality—remains the most useful conceptualization for monitoring broad, long-period, demographic trends (Madrigal, 2006). The second section highlights how this population history has germinated related contributions in other social science disciplines like sociology and political science. The third and fourth sections focus on two specific and related contributions of island scholars that emphasize the role and effects of external migration on the theory of the demographic transition (Caldwell, 1976) and on the so-called mobility transition (Zelinsky, 1971). The third section reviews how emigration tends to hasten the demographic transition in sending societies because of the impact of age-sex selective outmigration of young, reproductive cohorts on the population structure; on the other hand, immigration in receiving societies has the opposite effect. The fourth and final section examines the migration transition whereby former labour-exporting emigrant islands become labour-importing immigrant societies, under conditions of sustained economic growth.

Island Population History

According to the region's pioneer demographer, G.W. Roberts (1957), the pre-modern population history of the British Caribbean can be broken down into five distinct stages. The first phase, from European settlement through the late 18th century, covers the period when sugar production reached its zenith and population change was synonymous with the increasing recruitment of African labour. The second phase stretches through the 19th century to emancipation (1834-1838) and is characterized by the abolition of slavery and the steady decline of sugar culture. The third phase, from emancipation through 1880, is marked by continuing economic decline and the immigration of indentured workers from India (Laurence, 1971). The fourth phase, 1880-1920, is dominated by large-scale emigration from the Caribbean to build the Panama Canal, to develop banana plantations in Central America, and to find agricultural work in the United States. The final phase, from 1921-1960, is distinctive in that population growth no longer was primarily determined by migration but by natural increase. Instead, there were steady declines in mortality after the 1920s and noticeable increases in fertility after World War II. According to Harewood (1975: 2), "The population history of the non-British Caribbean differs in detail and timing only, from that outlined above."

Closer examination of the historical determinants of population change suggests collapsing Roberts' first three stages into a single period. From European settlement up to the late 19th century, the main determinant of population growth was plantation demand for workers. As Harewood states (1975: 3):

If population growth was more rapid or less rapid at any given time, this was because immigration was larger or smaller, and this in turn was either because of changes in the fortunes of sugar ... or because it was proving less or more difficult to recruit workers from the available sources.

Natural increase was not a factor in early Caribbean demographic history because fertility was low and mortality was high. In the first case, low fertility stemmed from two main factors: (1) the low ratio of females to males in the immigrant population, and (2) the fact that child-bearing was discouraged as being an unproductive and costly use of slave labour (Roberts, 1957). In addition, female slaves suffered infertility from a high incidence of sexually transmitted and other gynaecological diseases. Fertility actually rose somewhat after emancipation due to “an increase in the fecundity of females as a result of better diet and less strenuous work” (Madrigal, 2006: 130). In the second case, high mortality was due to the prevalence of tropical diseases, harsh working conditions, poor nutrition and sanitation, and limited or substandard medical facilities. In fact, Williams (1970: 145-156) shows that mortality was so high in late 18th century Barbados that the population actually decreased.

Although indentured immigration to Trinidad and Guyana continued to the end of Roberts’ fourth phase (1880-1920), two significant features mark the region’s population history. First, there was large-scale net emigration from the islands to Central America (Richardson, 2004) and to North America (de Albuquerque & McElroy, 1986), as well as substantial post-emancipation intra-Caribbean migration from the smaller, land-poor Leeward and Windward islands toward the larger regional sugar producers like Guyana, Trinidad & Tobago and Cuba (Marshall, 1982). Second, for the first time a significant population movement was occurring motivated not by involuntary recruitment, but by the voluntary decisions of individuals freely seeking economic opportunity. Immigration continued at a decelerating pace until indenture was formally discontinued in 1917 during an era when West Indian sugar was also steadily declining because of intensifying competition from European beet sugar. Emigration came to an abrupt end when immigration restrictions were imposed in the U.S. and elsewhere and did not re-emerge as an important population determinant until after World War II.

The distinctive characteristic of the fifth phase (1921-1960) is that Caribbean population change ceased to be determined primarily by external migration. Instead there were steady reductions in mortality and, in the immediate postwar era, some noticeable increases in fertility. In the first case, in the large countries of Jamaica, Guyana and Trinidad & Tobago, mortality declines were linked to the cumulative effects of improvements in public health, sanitation, housing and medical facilities. In the inter-war years, advances in economic welfare played a negligible role since the region was suffering from prolonged depression (Mandle, 1974). Similarly, the observed declines in infant mortality rates (IMRs) were attributed to improved sanitation, better nursing practice and expanded general education (Newman, 1956). In the second case, the sharp increases in fertility observed after World War II were likely due to the same accumulating set of self-reinforcing health improvements that favourably affected mortality; along with an increasing prosperity resulting from economic restructuring away from colonial monocrop staples (like sugar and cotton) towards international tourism, offshore banking services and export manufacturing (McElroy, 2004).

Fragmentary evidence from the Pacific suggests higher fertility and population growth than in the Caribbean in the pre-modern era, plus a greater diversity of insular trends (Pirie, 2000). However, just past the mid-point of the 20th century, most island nations had begun the demographic transition from higher to lower birth and death rates and reduced population pressure. The pattern was more advanced in the Caribbean than in the Pacific and Indian

Ocean, in part, because better Caribbean data allowed better trend tracking and because of a more advanced level of economic development. In the region, mortality declines intensified as island health authorities made concerted efforts to target a few major diseases—tuberculosis, pneumonia, bronchitis, kidney disease—and malaria. In a pattern common across the landscape of less developed countries (LDCs), no initiative was more successful than the postwar DDT (common name for the pesticide dichlorodiphenyltrichloroethane) campaign against malaria, “the great debilitator”, which sharply reduced death rates in Guyana, Trinidad & Tobago and “most Caribbean countries” (Harewood, 1975: 5). In addition, the “widespread” fertility transition (Connell, 1988: 18) observed since 1960 in almost all Caribbean islands (Byrne, 1973) has been attributed primarily to the many influences associated with modernization. These include the prevalence of birth control and government involvement in family planning programs (Vasquez, 1968; Harewood, 1968), industrial development and rising female labour force participation (Agyei, 1978), improved health, delayed marriage and the diffusion of Western preferences for smaller households (Caldwell *et al.* 1980), expanded emigration in general and among women of child-bearing age in particular (Harewood, 1963), and the nexus between mass education and the ease of communication in small island societies (Caldwell, 1980). Cleland & Singh (1980) found that in several Caribbean islands fertility declines were conditioned by prior steep declines in infant mortality, and that this effect was more significant than socio-economic advance. According to Halberstein & Davies (1979), such mortality declines were supported by the gradual epidemiological transition from infectious and parasitic tropical diseases to the chronic, non-communicable diseases (e.g. cardiovascular, pulmonary) more common in industrial society.

A snapshot of global trends in the early 21st century suggests that most tropical island states are clearly progressing through the demographic transition though pronounced differences remain. For example, according to Brown (2002), the average crude birth rate (CBR) in the Caribbean was estimated to be 35 per 1000 in 1960 while the average crude death rate (CDR) was estimated to be roughly 20 per 1000. Today the respective rates are less than 20 and 10 per 1000. In fact, in the region “mortality has begun to approach levels characteristic of the developed world” (Brown, 2002: 16). According to Connell (2011), in contrast to the 2% average in the Pacific, population growth rates are less than 1% in the Caribbean and currently slightly lower than the world average (Begot, 2010). Rates are declining in places like Barbados, St. Kitts-Nevis (SKN), Dominica and Montserrat because of a combination of emigration, slower economic growth, and an aging population structure (Serow & Cowart, 1998). On the other hand, growth is increasing in several rapidly developing tourist-dependent islands like the British Virgin Islands, Cayman Islands and the Turks & Caicos. Overall however, according to Bhutani & Goel’s (2009) analysis of 2005 data, the Caribbean (including Latin America) has progressed through the demographic transition further than any other of the developing regions in Africa, the Middle East, South Asia, East Asia and the Pacific. The former records the lowest average CBR (20), CDR (6), and IMR (26), and the highest average life expectancy (72 years). There is also evidence that the smaller subnational island jurisdictions (SNIJs) in the Caribbean, as elsewhere, are more demographically mature than their larger independent counterparts. In a 55-island study by McElroy & Parry (2011), the IMR in SNIJs—of which roughly half were Caribbean—averaged half the rate for the sovereign islands (11 vs. 21). Similarly, the CBR for SNIJs averaged 25% lower than the rate for the independent islands (15 vs. 20) while the population structure of the SNIJs was older

and the residents more affluent than their sovereign counterparts (US\$23,000 per capita GDP vs. US\$12,000), suggesting overall that the non-independent island jurisdictions were “more economically developed, socially advanced and demographically progressive than the independent island countries” (McElroy & Pearce, 2006: 536). In summary, Dommen’s (1980) statement that island populations in general were more advanced through the demographic transition than populations similar in size in mainland countries is quite apt for the Caribbean.

Demographic Legacies

Three important legacies have flowed from the work of these Caribbean demographers. The first is the study of ethnic cleavages and racial/occupational stratification common in West Indian societies (Lowenthal, 1972) and the resulting socio-economic and political tensions they periodically engender (Harewood, 1971). In addition, and closely related, is the plural society model whereby various ethnic groups meet in the marketplace but not often elsewhere (Smith, 1965). The tension and instability sometimes characteristic of these multi-ethnic plural island societies have spawned several major contributions by Caribbean authors: Hintzen (1989 Guyana and Trinidad), Stone (1973 Jamaica), and Premdas (1995 Guyana, 2007 Trinidad). The second is the plantation legacy of weak family structure often characterized as “loose, confusing and disorganized” (Smith, 1953: 87). In addition, a high degree of matrifocality (Barrow, 1996), extended families (Smith, 1962), and common law unions (de Albuquerque & McElroy, 1999) have been plantation legacies noticeable in the demographic patterns particularly among lower-income Caribbean families.

A substantial third strand of this demographic history has been the ubiquitous propensity to emigrate to improve economic status among Caribbean, as well as, Pacific/Indian and other islanders (Dommen, 1980). According to Connell (2007), the gradual embedding of an island “culture of migration” occurred early on in island society. In fact, Richardson (1992: 134) argues that the post-emancipation Caribbean “migration adaptation” was actually rooted in slavery: “Escape, or the contemplation of escape, probably preoccupied the thoughts of Caribbean slaves.” Such writers and others (Philpott, 1968; Richardson, 1983; Rubenstein, 1983; Connell, 1988) strongly emphasized the role of remittances in stabilizing living standards in labour exporting societies through the strategic use of these so-called “transnational corporations of kin” (Marcus, 1981). Dommen (1980: 940) called these “remittance islands” living largely off the fruit of work abroad. Indeed, the migration-remittance nexus became one of the twin pillars (with metropolitan aid) of the first island economy model, the MIRAB formulation developed by Bertram & Watters (1985), and it remains a key element in the most recent literature, particularly on small islands (Bertram & Poirine, 2007).

Island scholars have contributed substantially to conceptualizing the pattern of insular migration as a long-term, post-emancipation, socio-economic livelihood system not dissimilar in its comprehensiveness and complexity to the plantation system it replaced. According to Richardson’s (1983: 172) historical analysis of SKN, migration adaptation remains a cultural tradition that defines the West Indies and that islanders have “pursued for one and one-half centuries ... [to] compensate for drought, crop failure, overgrazing and a host of other [domestic] ecological uncertainties”. Because diverse skills were often required for each new

overseas opportunity, instead of developing specializations island migrants had to create a bank of talents, a type of occupational multiplicity (Levi-Strauss, 1962). On the other hand, repeated emigration weakened family structures since men and women were “less able to invest the time and energy necessary to maintaining family households ...” (Richardson, 1983: 180). The prominence of the migration experience is central to the two further Caribbean contributions developed in detail below.

Migration and the Demographic Transition

The theory of the demographic transition, originally developed by Notestein (1945), has come to be regarded as an overarching descriptive model of demographic change whereby agrarian societies modernize: that is, pass from a pre-industrial stage of high fertility and mortality to a post-modern period of low birth, death and growth rates. In between is the prior mortality transition stemming from “the improved food supplies and personal living standards generated by the combination of technical innovations summarized under the rubric of ‘industrial revolution’” (Szreter, 1993:661). The subsequent fertility transition, less responsive to the pattern of modernization, follows with a significant lag because reproductive behaviour is deeply embedded in “religious doctrines, moral codes, laws, education, community customs, marriage habits, and family organizations ... all focused toward maintaining high fertility” (Notestein, 1945: 39-40). According to Szreter (1993: 662), fertility would only gradually decline “as a result of the cumulative mutually reinforcing spectrum of effects consequent on full industrialization and modernization.” Such would include increasing child survival and changing social attitudes favouring individualism and consumerism. This societal transformation Caldwell (1976) compressed in the rubric of Westernization. He argued that the initial fertility decline was an economic phenomenon, whereby, the flow of wealth is from parents to children in a nuclear family context in contrast to the reverse flow in the extended family of traditional society where children worked and took care of their elders. This was the European, or Western social system exported to the islands, in particular “the concepts of the predominance of the nuclear family with its strong conjugal tie and the concept of concentrating concern and expenditure on one’s children” (Caldwell, 1976: 356). The role of mobility on fertility change was ignored and/or neglected in the early mainstream literature. The same is basically true of migration’s impact on mortality.

This section examines the impact of migration on the demographic transition in the Caribbean. The focus is deliberately narrow, (i.e., on the relatively short-term impacts of one-way migration on the fertility and mortality transitions and not on the longer term, developmental, social and spatial-temporal distribution effects of circular migration) (Skeldon, 2010). In the first case, early on, island scholars had suggested a negative link between emigration and natality. For example, Harewood (1975: 6) argued that the pronounced postwar fertility declines in the Caribbean were partly spawned by the large scale emigration of West Indian labour to Europe and North America. Between roughly 1950-1975, one million West Indians left for Britain, the USA and Canada (Marshall, 1982); nearly two million left Puerto Rico, Cuba and the Dominican Republic for the USA, “while close to 150,000 French and Dutch Islanders emigrated from Guadeloupe, Martinique, Surinam and the Dutch Antilles to France and the Netherlands” (Segal, 1975: 219).

This unprecedented out-migration was partly due to the Caribbean's strategic geographic location and had most dramatic effects on the smaller territories. During the late 1950s, Montserrat lost 10-15% of its total population each year (Conway, 1986); between 1965-75 about a quarter of British Virgin Islanders emigrated to the neighbouring U.S. Virgin Islands (USVI) and North America (Kritz, 1981); during the 1960s the combined labour force of the seven countries which today are members of the Organization of Eastern Caribbean States actually shrank (Loehr, 1986). Such migration experiences prompted Segal (1975: 44) to conclude that the Caribbean had "borne the deepest and most continuous impact from international migration of any region in the world..." He also suggested that these outflows would have far-reaching impacts on all aspects of the region's demographic behaviour.

Subsequently, a number of island scholars have attempted to link the generalized postwar fertility declines to the widespread reproductive age and sex imbalances induced by this massive out-migration. For example, in Puerto Rico, Vasquez (1968) found that roughly half of the decline in the CBR in the 1950s was caused by changes in the age and marital structure impacted by emigration. Similarly, in Barbados, Ebanks *et al.* (1975) found that young reproductive female migration cut the CBR two points per year during the 1960s. Finally, in SKN in the same period, McElroy & de Albuquerque (1988a) noted that the CBR fell 10 points when emigration increased at a 3% annual rate. In addition, other Caribbean observers emphasized the negative association between fertility and marital and/or co-habitational instability induced by migration (Denton, 1979). Since emigrant streams after 1960 had been largely dominated by women (Marshall, 1982), the resulting female deficits were expected to disrupt normal mating and natality patterns as Connell (1984) had argued for Pacific islands. However, migration was always relegated to a secondary causal role in fertility decline behind birth control and the other modernizing influences reviewed above.

An examination of 12 Caribbean islands during the 1960-70 migration decade traced the impact of mobility on the fertility behaviour of both sending and receiving societies and included ten Caribbean labour-exporting islands and two labour-importing islands: the Bahamas and the USVI (McElroy & de Albuquerque, 1990a). Results showed the labour exporters were uniformly characterized by rising sex and dependency ratios and emigration rates—averaging 1.5% per year—and sharp declines in working-age cohorts, amongst females in their most reproductive years (20-34/15-45), and in both the crude birth and total fertility rates. Two islands that experienced the heaviest out-migration, SKN and Puerto Rico, exemplify the trends. SKN exhibited a 9% reduction in reproductive females (20-34/15-45) from 42 to 33%, and a 3.3% drop in the CBR from 33.2 to 29.9% while Puerto Rico recorded a 6% drop in reproductive females and a striking fall from 5.0 to 3.6 in the total fertility rate within the short space of a decade. The authors concluded (1990a: 792):

Such evidence points at least to the plausibility that the widely recognized postwar fertility decline in the insular Caribbean was ... partly due to the disruptive effects of age-sex selective emigration on marital stability and normal West Indian patterns, as the literature suggested.

As a further test of the mobility hypothesis, it was expected that immigration especially of young reproductive females would either reverse or at least arrest the fertility decline in

receiving countries. This indeed was the case particularly for the USVI during the 1960s when the population more than doubled to service an unprecedented boom based on tourism, heavy and light manufacturing and related construction. Two-thirds of the increase was contributed mainly by West Indians from nearby East Caribbean islands, and the proportion of reproductive females rose a striking ten points. Predictably, declines were recorded for the sex and dependency ratios, and especially sharp increases were recorded for the CBR and the crude marriage rate (CMR). The former jumped five points during the boom and fell five points thereafter, while the CMR rose from ten (1955-60) to 16 (1970-75) per 1,000 population. The total fertility rate (TFR) rose slightly but remained above 6.0, higher than all the emigrant islands except the agricultural-based Dominican Republic.

The Bahamas case was suggestive but somewhat less convincing. During the 1960s, the archipelago became a popular tourist resort, an established offshore financial centre and ship registry that attracted labour from Haiti, Turks & Caicos Islands, as well as, the US and UK mainlands. Population increased 5% per year, half of which was contributed by immigration. The proportion of reproductive females rose sharply, the TFR remained high but the CBR fell contrary to the theory. The authors argued (1990a: 796-797) that the expected rise may have been offset by strong modernizing influences associated with intense growth pressures, population displacement, and other situational factors (Marshall, 1981). Nevertheless, the case was strengthened by the observed rise in the CMR. The study concluded (1990a: 797):

... that migration inversely affects natality and fertility in labour-exporting countries and directly affects them in labour-importing countries. In the postwar Caribbean context, this means that migration hastens the natality and fertility transitions in emigrant societies and retards progress in immigrant societies. The assumed transmission occurs through the impact of age-sex imbalances induced by the widespread mobility of young women in their child-bearing years, on mating behaviour and family formation.

One minor finding of the study was that the mortality decline in the immigrant islands was twice as steep on average as in the emigrant islands. A follow-up case analysis (McElroy & de Albuquerque, 1998) determined that some of the same type of age-sex related changes in the population composition wrought by migration slowed the mortality transition in sending societies and hastened it in receiving societies. In a study of inter-island migration between SKN and the USVI—the former contributed one third of total immigration to the USVI during the 1960s boom—the familiar age-sex changes and fertility and mortality patterns emerged. For example, in SKN between the decennial age-sex pyramids from 1960 to 1970, there was a significant “wasting” of the primary working-age cohorts (20-44) followed by discernible declines in the CBR, TFR, and the CMR. The normal triangular pyramidal structure was replaced by an hourglass shape. Conversely, the USVI experienced a significant bulge in the same working-age cohorts between 1960 and 1970 and consequently positive fluctuations in natality, fertility and marriage rates. In fact, the CMR rose rapidly, from 11 (per 1,000 population) in 1960, to 21 in 1971. Between 1970 and 1980, however, these age-sex changes reversed somewhat because of return migration to SKN due to three recessions in the USVI and a crackdown on alien residents.

In addition, SKN experienced “a modest but generally rising crude death rate (CDR) between 1964 and 1979” (McElroy & de Albuquerque, 1998: 68). This rise was partly due to a proportional increase of population cohorts with above-average, age-specific mortality rates. Two specific changes were identified: (1) a doubling of the population 65 years or older, largely as a result of return migration between 1970-80 after the economic boom; and (2) an increase in the sex (male) ratio of these older cohorts. Predictably the situation was reversed in the USVI. The CDR fell fairly uniformly between 1964 and 1979. Part of this decline was again due to the age-sex alterations in the population structure caused by heavy immigration. Such changes produced a younger and more female population, contours usually associated with lower age and sex specific death rates. Overall, the experience suggested that migration tended to accelerate the demographic transition towards slower population growth in labour-exporting countries by hastening the fertility and retarding the mortality transitions. Symmetrically, migration tended to brake the demographic transition towards slower growth in labour importing countries by retarding the fertility and hastening the mortality transitions.

The Migration Transition

Finally, one aspect of the mobility transition unexplored by Zelinsky (1971), and which Skeldon (2011) calls ‘a variant’, is the so-called migration transition: that is, the shift in rapidly developing societies from being net exporters to net importers of labour. According to McElroy & de Albuquerque (1988b: 31), in rapidly growing small island tourist economies (SITEs), “this changeover often occurs within a decade or two, and emigration as a major economic and demographic issue is soon replaced by immigration’ concerns”. Various island scholars have identified such transitions across the Caribbean archipelago. These include Marshall’s (1982) study of the Bahamas’ switch from labour surplus to labour scarcity during the 1960s tourism and offshore finance boom; a similar transition in the USVI during its boom decade (de Albuquerque & McElroy, 1982); and Connell’s (1994) examination of the transformation of the Cayman Islands from a subsistence-remittance economy to a modern tourism and offshore financial centre.

At least two observations emerged from this transition research. First: that, in fact, most of the small microstate Caribbean islands were at various stages of the demographic transition along a long-term economic continuum to displace traditional colonial staples with more income elastic high value-added export services and, to a lesser extent, light manufacturing exports. “In such societies, population growth and progress along the migration transition is an increasing function of this kind of successful export substitution” (McElroy & de Albuquerque, 1988b: 52). Progress along this economic and demographic restructuring is also associated with increasing fiscal autonomy and public sector activity, as well as, decreasing both unemployment and agricultural activity. The 1988 study identified the Bahamas and USVI as post-transition societies, having become chronic labour importers during the 1960s. Similarly, the British Virgin Islands and the Cayman Islands were designated transition societies since both were undergoing substantial immigration and population growth by the early 1980s. Finally, four islands were labelled pre-transition societies—Anguilla, SKN, Montserrat, and Turks & Caicos—since they continued to experience bouts of traditional emigration though at lower rates than in the pre-WWII era. In recent years, however, Turks &

Caicos has experienced the transition based on an economic boom in upscale tourism and offshore banking activity (Padilla & McElroy, 2010).

Second: by sketching the contours of emigrant versus immigrant islands, some of the different long-run policy implications can be drawn out. On one hand, pre-transition societies experiencing chronic emigration suffer from a waning productive base, an ageing labour force, and a loss of economic vitality by a steady drain of savings, capital, entrepreneurship and skills. Slowing population growth and demand, as well as, remittance dependence “weaken productive effort, social cohesion and innovation, and institutional participation” (McElroy & de Albuquerque, 1988b: 53). Although the motivation for change to curtail depopulation and stem the slide into backwater status is high (Lowenthal & Comitas, 1962), available resources are few and policy paralysis results. On the other hand, post-transition immigrant islands undergo opposite dynamics with rising cycles of demand, household formation, property price inflation, labour shortages, vulnerability to international business cycles, increasing traffic congestion and infrastructure breakdown, and ecosystem damage. Where foreign labour and capital threaten domestic dominance, there are occasional flare-ups of racial and/or ethnic tension over such issues as land tenure, job opportunities, even beach access. In short, these former labour surplus islands face a host of systemic policy challenges posed by their new labour scarcity status. Their sustained success will depend, in part, on securing more socially acceptable and environmentally compatible styles of development.

Conclusion

Based on comparative data from only two countries, Selwyn (1980:950) argued against the future viability of island studies: “The biological peculiarities of islands are an insufficient foundation for any plausible social or economic theory”. However, at roughly the same time, Mauldin & Berelson (1978) sounded the trumpet for the distinctive nature of island demography. They were among the first to provide empirical support for arguing that islands possess special demographic characteristics that cannot be accounted for simply by their more advanced economic status. Three decades hence suggest that the latter were more prescient.

This review has featured four unique contributions by Caribbean scholars. The first is the successful application of demographic transition theory to West Indian population history. The second highlights the impact of this demographic scholarship on related social science thinking in the Caribbean in such fields as the plural society, socio-economic stratification, and racial-ethnic political polarities and tensions. Third, Caribbean scholars have contributed to a much deeper understanding of the role that age-sex selective migration plays in hastening the demographic transition in emigrant societies and retarding its progress in receiving countries. Finally, island scholarship focused on the Caribbean has also uncovered the mobility transition during rapid economic modernization from chronic labour-exporting to permanent labour-importing status. This work has opened up a new vein of island studies that continues to be mined as the mobility transition is employed to distinguish rapidly growing immigrant-intensive islands from their more stagnant emigrant neighbours (Mitchell & McElroy, 2011).

This essay has emphasized selected contributions by Caribbean scholars. Obvious follow-up studies would seek to determine whether these Caribbean patterns are duplicated in other

tropical island regions and also whether there are similar patterns in cold water islands. While it is clear that Pacific islands are passing through the demographic transition at their own pace (Pirie, 1994), there is also suggestive evidence (Connell, 2011) that some Indian Ocean islands are experiencing similar migration-induced demographic transitions. Another direction would involve exploring the rich trove of work by Pacific scholars, where migration has perennially been “a theme of great practical and intellectual significance in a range of academic disciplines” (Connell, 1999: 36). In addition, following the more comprehensive studies of Skeldon (2011), and more in the spirit of Zelinsky’s (1971) original work, another fruitful line of enquiry would involve examining in more detail, and perhaps in a series of case studies, the nexus between the migration and demographic transitions and postwar economic restructuring from more to less labour-intensive and from primary to secondary/tertiary forms of production, linking the transitions more closely and explicitly to the level of development.

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References

- Agyei, W.K.A. (1978) ‘Modernization and the Theory of the Demographic Transition in the Developing Countries: The Case of Jamaica’, *Social & Economic Studies*, Vol. 27, No. 1, pp. 444-465.
- Barrow, C. (1996) *Families in the Caribbean: Theories and Perspectives*, Kingston, Jamaica, Ian Randle.
- Begot, M. (2010) ‘Demographic Transition in the Caribbean’, *Atlas Caribbean*, <http://atlas-caraiibe.certic.unicaen.fr/en/page-29.html>.
- Bertram, G. & B. Poirine (2007) ‘Island Political Economy’, in G. Baldacchino (ed.), *A World of Islands: An Island Studies Reader*, Charlottetown, Canada and Luqa, Malta, Institute of Island Studies, University of Prince Edward Island and Agenda Academic, pp. 325-377.
- Bertram, G. & R.F. Watters (1985) ‘The MIRAB Economy in South Pacific Microstates’, *Pacific Viewpoint*, Vol. 26, No. 3, pp. 497-519.
- Bhutani, S. & S. Goel (2009) ‘Demographic Transition in the World: Experiences and Directions’, *Asia-Pacific Journal of Social Sciences*, Vol. I, No. 1, pp. 51-72.
- Brown, D.A.V. (2002) *Socio-Demographic Vulnerability in the Caribbean*, Santiago, Chile, Economic Commission for Latin America and the Caribbean, Population Division.
- Byrne, J. (1973) *Levels of Fertility in the Commonwealth Caribbean, 1921-65*, Kingston, Jamaica, University of the West Indies, Institute of Social and Economic Research.

Caldwell, J., G. Harrison & P. Quiggin (1980) 'The Demography of Microstates', *World Development*, Vol. 8, No. 12, pp. 953-967.

Caldwell, J.C. (1980) 'Mass Education as a Determinant of the Timing of Fertility Decline,' *Population and Development Review*, Vol. 6, No. 2, pp. 225-255.

Caldwell, J.C. (1976) 'Toward a Restatement of Demographic Transition Theory', *Population and Development Review*, Vol. 2, Nos. 3-4, pp. 321-366.

Cleland, J.G. & S. Singh (1980) 'Islands and the Demographic Transition', *World Development*, Vol. 8, No. 12, pp. 969-993.

Connell, J. (1984) 'Status or Subjugation? Women, Migration and Development in the South Pacific', *International Migration Review*, Vol. 18, No. 4, pp. 964-983.

Connell, J. (1988) *Sovereignty & Survival: Island Microstates in the Third World*, Sidney, Dept. of Geography, University of Sydney.

Connell, J. (1994) 'The Cayman Islands: Economic Growth and Immigration in a British Colony', *Caribbean Geography*, Vol. 5, No. 1, pp. 51-66.

Connell, J. (1999) 'In Pursuit of Moving Targets: New Zealand Population Geography in the South Pacific', *New Zealand Geographer*, Vol. 55, No. 2, pp. 36-49.

Connell, J. (2007) 'Island Migration', in G. Baldacchino (ed.), *A World of Islands: An Island Studies Reader*, Charlottetown, Canada and Luqa, Malta, Institute of Island Studies, University of Prince Edward Island and Agenda Academic, pp. 455-481.

Connell, J. (2011) *Environmental Change and Migration in Small Islands and Small Island States*, London, HMSO (in press).

Conway, D. (1986) 'Patterns of Caribbean Migration', in J. Hopkins (ed.), *Latin America and Caribbean Contemporary Record IV 1984-85*, New York, Holmes and Meier, pp. 197-208.

Darwin, C. (1859/1979) *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*, New York, W. Morrow.

de Albuquerque, K. & J.L. McElroy (1999) 'Race, Ethnicity and Social Stratification in Three Windward Islands', *Journal of Eastern Caribbean Studies*, Vol. 24, No. 4, pp. 1-28.

de Albuquerque, K. & J.L. McElroy (1986) 'Bahamian Labour Migration, 1901-1963', *New West Indian Guide*, Vol. 60, Nos. 3-4, pp. 167-202.

de Albuquerque, K. & J.L. McElroy (1982) 'West Indian Migration to the U.S. Virgin Islands', *International Migration Review*, Vol. 16, No. 1, pp. 61-101.

- Denton, E. (1979) 'Economic Determinants of Fertility in Jamaica', *Population Studies*, Vol. 33, No. 2, pp. 295-305.
- Dommen, E. (1980) 'Some Distinguishing Characteristics of Island States', *World Development*, Vol. 8, No. 12, pp. 931-943.
- Ebanks, G., P. George & C. Nobbe (1975) 'Emigration and Fertility Decline: The Case of Barbados', *Demography*, Vol. 12, No. 3, pp. 431-445.
- Harewood, J. (1975) 'West Indian People' in G. Beckford (ed.) *Caribbean Economy: Dependence and Backwardness*, Kingston, Jamaica, Institute of Social and Economic Research, pp. 1-33.
- Harewood, J. (1971) 'Racial Discrimination in Employment in Trinidad and Tobago', *Social and Economic Studies*, Vol. 20, No. 3, pp. 267-293.
- Harewood, J. (1963) 'Population Growth of Trinidad and Tobago in the Twentieth Century', *Social and Economic Studies*, Vol. 12, No. 1, pp. 1-26.
- Harewood, J. (1968) 'Recent Population Trends and Family Planning Activity in the Caribbean', *Demography*, Vol. 5, No. 2, pp. 874-893.
- Halberstein, R.A. & J.E. Davies (1979) 'Changing Patterns of Health Care on a Small Bahamian Island', *Social Science and Medicine*, Vol. 13, No. 2, pp. 153-167.
- Hintzen, P. (1989) *The Costs of Regime Survival: Racial Mobilization, Elite Domination and Control of the State in Guyana and Trinidad*, Cambridge, Cambridge University Press.
- Kritz, M. (1981) 'International Migration Patterns in the Caribbean Basin: An Overview' in M. Kritz, C. Keely & S.M. Tomasi (eds.) *Global Trends in Migration*, Staten Island NY, Center for Migration Studies, pp. 208-233.
- Laurence, K.O. (1971) *Immigration into the West Indies in the Nineteenth Century*, Kingston, Jamaica, Caribbean Universities Press.
- Levi-Strauss, C. (1962) *The Savage Mind*, Chicago IL, University of Chicago Press.
- Loehr, W. (1986) *Employment and Unemployment in the Eastern Caribbean*. Bridgetown, Barbados, USAID.
- Lowenthal, D. (1972) *West Indian Societies*, London, Oxford University Press.
- Lowenthal, D. & L. Comitas (1962) 'Emigration and Depopulation: Some Neglected Aspects of Population Geography', *Geographical Review*, Vol. 52, No. 2, pp. 195-210.

MacArthur, R.H. & E.O. Wilson (1967) *The Theory of Island Biogeography*, Princeton NJ, Princeton University Press.

Madrigal, L. (2006) *Human Biology of Afro-Caribbean Populations*, Cambridge, Cambridge University Press.

Malinowski, B. (1929) *The Sexual Life of Savages in North-Western Melanesia: An Ethnographic Account of Courtship, Marriage, and Family Life Among the Natives of the Trobriand Islands, British New Guinea*, London, Routledge.

Mandle, J. (1974) *The Plantation Economy: Population and Economic Change in Guyana, 1838-1960*, Kingston, Jamaica, University of the West Indies, Institute of Social & Economic Research.

Marcus, G.E. (1981) 'Power on the Extreme Periphery: The Perspective of Tongan Elites in the Modern World System', *Pacific Viewpoint*, Vol. 22, No. 1, pp. 48-64.

Marshall, D. (1982) 'The History of Caribbean Migrations: The Case of the West Indies', *Caribbean Review*, Vol. 11, No. 1, pp. 6-9, 52-53.

Marshall, D. (1981) 'Haitian Migration to the Bahamas' in S. Craig (ed.) *Contemporary Caribbean: A Sociological Reader*, Vol. 1, Port-of-Spain, Trinidad, College Press, pp. 101-127.

Mauldin, W.P. & B. Berelson (1978) 'Conditions of Fertility Decline in Developing Countries, 1965-75', *Studies in Family Planning*, Vol. 9, No. 5, pp. 89-147.

McElroy, J.L. (2004) 'Global Perspectives of Caribbean Tourism', in D. Duval (ed.), *Tourism in the Caribbean: Trends, Development, Prospects*, London, Routledge, pp. 39-56.

McElroy, J.L. & C.E. Parry (2011) The Long-term Propensity for Political Affiliation in Island Microstates. Paper presented at international workshop, 'Island Independence Movements in the 21st Century', Edinburgh, Scotland, University of Edinburgh (September 8-10).

McElroy, J.L. & K. Pearce (2006) 'The Advantages of Political Affiliation: Dependent and Independent Small Island Profiles', *The Round Table*, Vol. 95, No. 386, pp. 529-539.

McElroy, J.L. & K. de Albuquerque (1998) 'Migration between St. Kitts-Nevis and the U.S. Virgin Islands', in D. Barker, C. Newby & M. Morrissey (eds.), *A Reader in Caribbean Geography*, Kingston, Jamaica, Ian Randle, pp. 57-70.

McElroy, J.L. & K. de Albuquerque (1988a) 'The Impact of External Migration on the Mortality and Fertility Transitions of Insular Microstates', *Caribbean Geography*, Vol. 2, No. 3, pp. 173-194.

McElroy, J.L. & K. de Albuquerque (1988b) 'Migration Transition in Small Northern and Eastern Caribbean States', *International Migration Review*, Vol. 22, No. 3, pp. 30-58.

McElroy, J.L. & K. de Albuquerque (1990a) 'Migration, Natality and Fertility: Some Caribbean Evidence', *International Migration Review*, Vol. 24, No. 4, pp. 783-802.

McElroy, J.L. & K. de Albuquerque (1990b) 'Managing Small-island Sustainability: Towards a Systems Design', *Nature & Resources*, Vol. 26, No. 2, pp. 23-30.

Mead, M. (1928) *Coming of Age in Samoa: A Psychological Study of Primitive Youth for Western Civilization*, New York, Harper Collins.

Mitchell, S.A. & J.L. McElroy (2011) 'Emigrant and Immigrant Small Island Profiles', *Bank of Valletta Review*, Vol. 43, Spring, pp. 1-11.

Newman, P. (1956) *Malaria Eradication and Population Growth*, Ann Arbor MI, University of Michigan, School of Public Health.

Notestein, F.W. (1945) 'Population—the Long View', in T.W. Schultz (ed.), *Food for the World*, Chicago IL, University of Chicago, pp. 36-57.

Padilla, A. & J.L. McElroy (2010) 'The Three Cs of Caribbean Tourism: Contexts, Characteristics and Consequences', *ARA: Journal of Tourism Research*, Vol. 2, No. 2, pp. 78-90.

Philpott, S.B. (1968) 'Remittance Obligations: Social Networks and Choice among Montserratian Migrants in Britain', *Man*, Vol. 3, No. 3, pp. 465-476.

Pirie, P. (2000) 'Untangling the Myths and Realities of Fertility and Mortality in Pacific Islands', *Asia-Pacific Population Journal*, Vol. 15, No. 2, pp. 5-20.

Pirie, P. (1994) 'Demographic Transition in the Pacific Islands: The Situation in the Early 1990s', *East-West Working Papers*, Honolulu HI, Pacific Islands Development Series No. 5 (August).

Premdas, R. (2007) *Trinidad-Tobago: Ethnic Conflict, Inequality and Public Sector Governance*, New York, Palgrave Macmillan.

Premdas, R. (1995) *Ethnic Conflict and Development: The Case of Guyana*, Geneva, United Nations Research Institute for Social Development.

Richardson, B.C. (2004) *Panamanian Money in Barbados: 1900-1920*, Knoxville, TN, University of Tennessee Press.

Richardson, B.C. (1992) *The Caribbean in the Wider World: 1492-1992*, Cambridge, Cambridge University Press.

Richardson, B.C. (1983) *Caribbean Migrants: Environment and Human Survival on St. Kitts and Nevis*, Knoxville TN, University of Tennessee Press.

Roberts, G.W. (1957) *The Population of Jamaica*, London, Cambridge University Press.

Rubenstein, H. (1983) 'Remittances and Rural Underdevelopment in the English-speaking Caribbean', *Human Organization*, Vol. 42, No. 4, pp. 295-306.

Segal, A. (1975) *Population Policies in the Caribbean*, Lexington, MA, D.C. Heath.

Selwyn, P. (1980) 'Smallness and Islandness', *World Development*, Vol. 8, No. 12, pp. 945-951.

Serow, W.J. & M.E. Cowart (1998) 'Demographic Transition and Population Aging with Caribbean Nation States', *Journal of Cross-Cultural Gerontology*, Vol. 13, No. 3, pp. 201-213.

Skeldon, R. (2011) 'Migration Transitions Revisited: Their Continued Relevance for the Development of Migration Theory', *Population, Space and Place*. DOI: 10.1002/psp.667

Skeldon, R. (2010) 'Managing Migration for Development: Is Circular Migration the Answer?' *The Whitehead Journal of Diplomacy and International Relations*, Vol. XI, Winter/Spring, pp. 21-33.

Smith, M.G. (1965) *The Plural Society in the British West Indies*, Berkeley CA, University of California Press.

Smith, M.G. (1962) *West Indian Family Structure*, Seattle WA, University of Washington Press.

Smith, R.T. (1953) 'Aspects of Family Organization in a Coastal Negro City in British Guiana', *Social and Economic Studies*, Vol. 1, No. 1, pp. 87-111.

Stone, C. (1973) *Class, Race and Political Behaviour in Urban Jamaica*, Kingston, Jamaica, Institute of Social and Economic Research.

Szreter, S. (1993) 'The Idea of Demographic Transition and the Study of Fertility Change: A Critical Intellectual History', *Population & Development Review*, Vol. 19, No. 4, pp. 659-701.

Wallace, A.R. (1881) *Island Life*, New York, Harper Brothers.

Williams, E. (1970) *From Columbus to Castro: The History of the Caribbean, 1492-1969*, New York, Harper & Row.

Vasquez, J. (1968) 'Fertility Decline in Puerto Rico: Extent and Causes', *Demography*, Vol. 5, No. 2, pp. 855-865.

Zelinsky, W. (1971) 'The Hypothesis of the Mobility Transition', *Geographical Review*, Vol. 61, No. 2, pp. 219-249.