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ABSTRACT

This study examines a global sample of forty small islands less than three million in population, 14 characterized by chronic immigration and 26 typified by chronic emigration. It constructs separate socio-economic and demographic profiles of the two island groups using means difference analysis across twenty-two indicators. The paper concludes that the immigrant islands are significantly more economically and socially advanced and demographically mature than their emigrant counterparts. It argues indirectly that the source of the former's affluence is their greater degree of postwar diversification, especially towards international tourism, offshore banking and export manufacturing.

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Introduction

Scholars have long identified migration as a special propensity of island populations. According to Christensen and Mertz (2010: 282): "It is beyond doubt that migration is an inseparable dimension attached to islands and that periodic migration is not an option, but a systematic imperative built into the nature of islanders' ecological and social system, the consequence of their boundedness in limited land areas." In a recent *BOV Review* article (2008, Autumn: 2), Chand emphasizes the point by arguing that "small island countries are particularly prone to emigration," and further that remittances from off-island labor "account for a significant proportion of income in many small island states." In fact, emigrant labor and remittance return form one of the two pillars of the MIRAB economy developed by Bertram and Watters (1985) to explain Pacific experience. Such economies also export diplomatic services and UN votes in exchange for aid from patron countries to fund large-scale public bureaucracies.

In contrast, more recent research has focused on the insular ability to create a dynamic and rapidly growing private sector and stimulate immigration. For example, Baldacchino's (2006) PROFIT model based primarily on North Atlantic experience, explains how small, non-sovereign islands use their resource of jurisdiction to wrest control from their metropolitan patrons over local resources and finance to establish successful tax and insurance havens, offshore banking centers and duty-free export manufacturing enclaves. An interesting variant of the PROFIT genre, the SITE or small island tourist-dependence economy, was developed (McElroy, 2006) to explain how Caribbean islands restructured their postwar economies from colonial staples primarily toward international tourism. In the process many of these popular resorts became heavy labor importers because of the labor-intensive demands of a burgeoning

tourism industry for construction and service workers. In effect, such islands passed through the so-called 'migration transition' from labor exporters to labor importers (McElroy and de Albuquerque, 1988).

A number of follow-up studies have been undertaken to draw empirical contrasts between the various MIRAB, PROFIT, and SITE island economy models, and in each case differences in migration behavior have been singled out. For example, in a 58-nation study contrasting PROFIT-SITE versus MIRAB islands (Oberst and McElroy, 2007: 170), results reflected "a steady influx of workers in the former to service the labor-intensive demands of rapid tourism growth and offshore activity; and in the latter a sustained emigration related to the drive for remittances." In a related smaller study of 19 SITE and 17 MIRAB islands, McElroy and McSorley (2007) found disparate migration experiences – positive (SITE) and negative (MIRAB) – the distinguishing finding of the research. Finally, a 55-island examination of the differences between sovereign and subnational island jurisdictions (SNIJs) emphasized again the significance of contrasting migration patterns (McElroy and Pearce, 2006: 534):

> Aside from the wide per capita GDP differences, perhaps no other variable better captures the structural divide between the two profiles than these differential migration experiences, which discriminate between the dynamic, labour-importing SNIJs and their slow growing, labour-exporting sovereign counterparts.

Scope

To date, no study has specifically examined the differences between emigrant and immigrant islands. The focus of the present analysis is to determine whether the MIRAB-type labor exporting island microstates share a distinct profile that sets them apart from their PROFIT-

SITE labor-importing counterparts. To accomplish the comparison, some twenty-two indicators were taken from the *World Factbook* (CIA, 2009) to construct socio-economic and demographic profiles for the two island groups. Islands were classified as emigrant or immigrant based on their annual net migration behavior over the most recent five-year period. The overall purpose of the research was to contribute to the literature by determining whether describing small islands with a migration dichotomy had any empirical grounding. It was also hoped that, if differences appeared as the recent literature cited above suggests, the profiles might identify some contrasts in economic structure and behavior that may point to policy directions particularly for the (assumed) slower growing MIRAB-type emigrant islands.

Methodology

The methodology involved three steps. First, twenty-two indicators were selected to comprehensively measure socio-economic and demographic differences between the two island groups. For example, nine variables were employed to measure economic differences, six performance indicators and three structural characteristics. The former included per capita GDP, real GDP growth, unemployment and the labor force participation rate (LFPG) with population and land area used as measures of resource availability. The LFPR was measured crudely as the labor force divided by the total population. The structural characteristics included the distribution of the labor force into agriculture, industry and services. Eight variables were also used to measure demographic behavior and included the crude birth and death rates, the sex ratio, population growth, median age, and the population distribution into young (0-14 yrs.), working age (15-64 yrs.) and old (65+ yrs.) cohorts. Finally, five variables were employed to

measure social advancement and heath: adult literacy, extent of urbanization and educational expenditure as a percent of the government budget, and life expectancy and infant mortality.

Second, forty small islands less than three million in population were selected for which the data were available. Only three had one than one million inhabitants: Jamaica, Mauritius and Trinidad/Tobago. They were classified into emigrant and immigrant groups based on average annual net migration behavior between 2005-2010. Islands where the five-year annual average net migration was consistently positive were classified as immigrant, and those where the average was negative as emigrant. The former comprised 14 islands including nine in the Caribbean, French Polynesia and Palau in the Pacific, Malta in the Mediterranean, Seychelles in the Indian Ocean, and Bahrain in the Persian Gulf. There were 26 emigrant islands including 12 in the Pacific, 11 in the Caribbean, and three in the Indian Ocean: Comoros, Maldives and Mauritius (see Table 1).

(Table 1 about here)

In the third step, average values were calculated across the 22 socio-economic and demographic indicators for the two island groupings using means difference analysis. Consonant with the literature, it was hypothesized that immigrant islands would outperform their emigrant neighbors economically and have more diversified production structures anchored to services (tourism and offshore banking) and manufacturing. They would also exhibit lower unemployment and higher labor force participation. Demographically it was hypothesized that, because of their relative affluence, the former would be further advanced along the demographic transition with lower birth and death rates but a higher sex ratio because of the assumed male sex selectivity of persistent immigration. Likewise, it was assumed the same islands would be characterized by

higher rates of population growth, working age cohorts, and median age. Finally immigrant islands were assumed to be more modernized than their emigrant counterparts and thereby demonstrate lower infant mortality and higher life expectancy, literacy, urbanization and educational expenditure.

Results

Table 2 records average values of the 22 indicators for both island groupings and results from the means difference analysis in terms of p-values. By the large the outcomes parallel the hypotheses stated above and yield statistically distinct socio-economic and demographic profiles. Group means comparisons show that a full half of the 22 indicators are statistically significant at the 0.05 level or better and another two are significant at the 0.10 level. For example, the immigrant islands outperformed their emigrant counterparts on all measures of economic achievement. First, the 14 emigrant islands were significantly more affluent with average per capita GDP nearly three times higher than their 26 emigrant neighbors, i.e. $26,521 versus $9,638. This result stands notwithstanding the fact that the latter were twice as large in average population, and three times in average area. These two proxy measures for resource availability translate into more favorable labor-land ratios, i.e. 93 persons per square km in the emigrants versus 144 persons per square km in the immigrants.

Second, as destination economies for migrating labor in search of livelihoods, the immigrant islands had roughly half the average unemployment rate of 7.5 percent versus nearly 14 percent for the emigrant or labor-sending microstates. Not surprisingly, immigrant islands averaged a

LFPR of roughly 50% against the 41 percent figure in the emigrants. Third and not unexpectedly, GDP growth was somewhat better in the former over the latter. However, the difference was not statistically significant and both group averages were negative because of the impact of the Great Recessiion in 2009, the base year for the data used in the analysis. Finally, there were major contrasts in economic structure. To illustrate, immigrant island microstates were considerably more diversified away from traditional agriculture and toward industry and services, although the latter difference was not statistically significant. For example, immigrant island labor forces on average were distributed 6.5 percent in agriculture against 23 percent in emigrant islands. In addition, the former averaged over 30 and 60 percent of the labor force in industry and services respectively in contrast to the emigrant ratios of 20 and 57 percent. Such evidence suggests that immigrant islands were further along than their emigrant counterparts in modernizing and restructuring their postwar economies away from income inelastic colonial staples toward more income elastic manufactures and international service exports like tourism and offshore banking.

(Table 2 about here)

According to Table 2, demographic differences parallel these economic contrasts. As expected, immigrant islands experienced significantly higher annual average population growth (1.4%) than the emigrant islands (0.4%). Consonant with their higher levels of affluence, immigrant islands also demonstrated significantly lower average fertility as measured by the crude birth rate, 14.6 versus 19.7 per 1,000 population. The former also averaged slightly lower mortality as measured by the crude death rate. Such findings suggest that immigrant microstates have progressed further along the demographic transition from high to low fertility and mortality than their emigrant neighbors. Although it was hypothesized that the former would also exhibit a

higher average (male) sex ratio because of the assumed male sex selectivity of migration streams, results showed almost identical values between both island groups. This may suggest that inter-island labor flows were fairly evenly balanced say, in the case of tourism and/or export manufacturing development, between male construction/factory labor and female hotel, restaurant or other service workers. As a result of this labor mobility, the population pyramids across the two groups clearly differ with emigrant islands having a significantly higher share of young (29% versus 23%) cohorts—partly the result of their high average fertility—and a wasting away of the working-age cohorts (64% versus 69%). On the other hand, the immigrant islands are characterized by a bulging of the working-age ranks and a higher median age (33 versus 30 yrs.), partly a reflection of this last trend plus perhaps some increase in retirees, both national and expatriate.

Finally, the two profiles discriminate along social and health characteristics. Immigrant islands demonstrate higher levels of modernization and advancement. For example, they average significantly higher levels of urbanization with over 70 percent of the population in urban centers where the brunt of economic activity is located. This is in contrast to only 50 percent urbanization in the more agricultural-based emigrant islands. The former also boast significantly higher life expectancy—76 to 73 years—than their emigrant neighbors, and considerably lower infant mortality, i.e. 11 versus 19 deaths per 1,000 live births. This difference along with higher adult literacy (95% to 91% though statistically insignificant) is partly due to the greater affluence of the labor-importing islands and their greater concentration of and access to medical and educational infrastructure sited in the larger urban population centers. On the other hand, contrary to the hypothesis, emigrant islands tend to spend a larger share of their public funds on

education (6.5% versus 4.5%) although the difference is only significant at the ten percent level. In the main, however, the comprehensive profiles detailed above present two contrasting island types: the smaller, more affluent and socio-demographically advanced labor-importing islands that resemble the PROFIT-SITE models covered in the literature, and their larger, less developed and less demographically mature MIRAB-type labor-exporting neighbors.

Conclusion

This provisional study examined whether classifying small islands into labor-exporting and labor-importing groups would yield distinct socio-economic and demographic profiles. Despite the relatively small sample of islands, 14 immigrant and 26 emigrant, results from a means difference analysis showed the expected contours alluded to in the literature. The smaller receiving societies had uniformly stronger economies and noticeably less unemployment than their larger labor-sending counterparts. The former were also more diversified toward income elastic international leisure and financial services and manufacturing while the latter were less restructured with almost a quarter of the labor force on average still engaged in agriculture and traditional pursuits.

In addition, there were parallel demographic and social contrasts in the two profiles. For example, population growth in the immigrant islands averaged three times faster than in the emigrant islands, fueled by the in-migration of working age (15-64) cohorts (plus some retirees perhaps) drawn to these more rapidly growing urbanized destinations. As would be expected from their relative affluence, they were also more demographically mature with lower average fertility and mortality rates than their emigrant counterparts. Finally, in terms of social

modernization, immigrant islands exhibited marked higher levels of life expectancy and adult literacy and significantly lower infant mortality.

In summary, results of the analysis confirmed the view scattered throughout the literature that classifying small islands dichotomously by migration patterns has clear empirical validity, that is, that the contrasts between PROFIT-SITE type island societies that have passed through the migration transition and those remittance-driven MIRAB-like others that have not are indeed real. The findings also suggest indirectly that part of the immigrant islands' success is due to their greater reliance on global tourism, offshore finance and export manufacturing. Follow-up case study research contrasting pairs of PROFIT or SITE islands with MIRAB counterparts should answer this question more directly and hopefully yield an abundance of detail that would further flesh out the provisional profiles constructed here.

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Table 1 Immigrant and Emigrant Small Island Groupings

Immigrant	Emigrant
Anguilla	Barbados
Antigua	Bonaire
Aruba	Comoros
Bahamas	Cook Islands
Bahrain	Dominica
Bermuda	Fiji
Cayman Islands	Grenada
French Polynesia	Guam
Malta	Jamaica
Palau	Kiribati
St. Maarten	Maldives
Seychelles	Marshall Islands
Turks/Caicos	Mauritius
UK Virgin Islands	Micronesia
	Montserrat
	No. Mariana Islands
	New Caledonia
	Samoa
	Solomon Islands
	St. Kitts
	St. Lucia
	St. Vincent
	Tonga
	Trinidad/Tobago
	Tuvalu
	US Virgin Islands

Table 2 Immigrant and Emigrant Profiles, 2009

Indicator	Immigrant	Emigrant	p-value
Population	177943	352857	0.180
Area (km sq.)	1237	3788	0.045
Per Capita GDP	26521	9638	0.002
Unemployment	7.5	13.7	0.002
Crude Birth Rate	14.6	19.7	0.001
Crude Death Rate	5.9	6.2	0.563
Sex Ratio (15-64yrs)	1.04	1.02	0.549
Pop Distrib (0-14yrs)	22.9	28.8	0.001
Pop Distrib (15-64yrs)	69.3	64.4	0.000
Pop Distrib (65+yrs)	7.8	6.5	0.211
Urban Population	72.5	50.2	0.015
Edu Expend	4.5	6.4	0.101
Pop Growth Rate	1.4	0.4	0.032
GDP Real Growth Rate	-0.3	-1.0	0.611
Life Expect	76.2	72.7	0.007
Median Age	32.9	29.8	0.332
Literacy	94.6	90.8	0.286
LF (Ag)	6.5	23.2	0.005
LF (Ind)	31.3	19.9	0.093
LF (Serv)	62.7	56.8	0.395
LFPR	49.5	40.8	0.134
Infant Mortality Rate	10.63	18.9	0.010

Source: Raw Data from *The World Factbook* (CIA, 2009).