

**POPULATION CONCENTRATION IN LESS
DEVELOPED COUNTRIES: NEW EVIDENCE**

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Preface

The growth of “mega-cities” in developing countries is a source of concern. This paper treats a closely related topic, the increasing concentration, through rural-urban migration, of population in “core regions,” which accounts for disproportionate shares of population and economic activity. In the industrialized countries a trend toward deconcentration, i.e., net out-migration from core regions, has been evident since the censuses of the 1970s. This reversal of national migration patterns often first asserted itself at a level of development corresponding to per capita GDP of 5,000 US dollars (1985 terms).

In this paper, Landis MacKellar of the Population Project and D.R. Vining, Jr. of the Population Studies Center of the University of Pennsylvania review evidence from the 1990 round of censuses in less developed countries. While there have been some notable reversals during the last intercensal interval (most notably, net out-migration from the regions surrounding Mexico City and Bangkok), they find that there is nothing inevitable about the commencement of population deconcentration at any given level of development. The share of the core region can continue to grow long after per capita GDP exceeds US \$5,000. This suggests that some LDC urban agglomerations may reach sizes that are astonishing by current standards.

In combining demographic, geographic, and economic reasoning, the paper is typical of IIASA’s multidisciplinary research focus. In making available, in summary form, data on population distribution in LDCs during the postwar period, it also reflects the Population Project’s continuing emphasis on dissemination and analysis of basic demographic data.

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ABSTRACT Economic theory associates the increase in population concentration, i.e., the proportion of national population residing in the core economic region, with scale and agglomeration economies. Wheaton and Shishido (1981) estimated that these persist until real *per capita* national income reaches 5,000 1985 U.S. dollars (USD). After this point in a country's economic development, they predicted, population redistribution towards the core region will cease and the proportion of national population residing in the core region will commence to decline. The experience of developed countries (DCs) in the 1970s and 1980s broadly conformed to this pattern, albeit with exceptions. Evidence from less developed countries (LDCs) through the 1980 round of censuses led Vining (1986) to propose a weakened version of the USD 5,000 rule in which this point is characterized only by a slowing of rate of population re-distribution towards the core, not by an outright reversal. This paper updates previously reported trends in population redistribution in LDCs and reports on many new countries. Taken as a whole, post-war data reinforce the need for caution of the sort expressed by Vining. While there is a weak negative correlation between the rate of net migration into the core region and *per capita* income, the share of population residing in the core region may continue to rise even when *per capita* income has grown to well beyond USD 5,000.

Men, thinly scattered, make a shift, but a bad shift, without many things. A smith is ten miles off: they do without a nail or a staple. A taylor is far from them: they'll botch their clothes. It is being concentrated which produces high convenience. (Boswell 1786, p. 169)

1. INTRODUCTION

Concern over Third World city growth arises not from urbanization *per se*, but rather from the spatially unbalanced character of the present urbanization process. As the United Nations Population Division (1993) and others have noted, current demographic trends are rapidly giving rise to "mega-cities" whose absolute size, rate of growth and exaggerated primacy are sources

of concern from the standpoint of economic and environmental sustainability. While policy makers in less developed countries (LDCs) disagree on the consequences of the size and increase of their national populations, they are almost unanimous in condemning its spatial distribution. Thus, most of the LDCs on which information is available in the Population Policy Data Bank maintained by the United Nations Population Division are, or at least claim to be, implementing policies to slow the rate of primate city growth.

This paper does not treat directly the "mega-city" phenomenon, but concerns itself with a closely related subject: the continuing redistribution of populations towards "core regions" of LDCs, that is, regions (usually but not always containing the capital city) accounting for a disproportionate share of population and economic activity. Due to urban sprawl and the resulting under-bounding of city administrative boundaries, the population of the core region is frequently a more accurate measure of the size of the primate urban agglomeration than is city size itself.

The standard economic model of population redistribution and development (Alperovitch 1992; Petrakos 1992; Parr 1985; Alonso 1971; Mera 1973) starts with the location decision of the firm in the face of scale and agglomeration (localization and urbanization) economies (Soroka 1994). As resources, including human resources, are increasingly concentrated in the core region, the rate of return to such resources is boosted further, promoting yet further redistribution towards the core. Eventually, scale and agglomeration economies will be exhausted, perhaps in conjunction with diseconomies of congestion and the ecological ill-effects of over-urbanization in the primate city (Richardson 1989; Bartone 1991), at which point the proportion of the national population residing in the core region will begin to decline. The role of social, cultural and political factors such as ethnic diversity and the distribution of power between core and peripheral regions has also been cited by some researchers (Mutlu 1989; Petrakos and Brada 1989).

2. THE 5,000 DOLLAR RULE(S)

Wheaton and Shishido (1981) estimated a model which suggested rising concentration of *urban* population into a few primate metropolitan areas, up to a level of national development corresponding to a *per capita* income level of roughly 5,000 1985 U.S. dollars (USD; as a benchmark, this was approximately the level of income in Korea in the second half of the 1980s — Wheaton and Shishido cited a cutoff of 2,000 1970 USD, which corresponds to approximately 5,200 1985 USD). Citing "a consistent and plausible relationship between economic development and urban concentration," Wheaton and Shishido concluded that the course of population redistribution is entirely predictable: "Urban concentration must increase with the level of development, until the latter approaches USD 2,000 [USD 5,000 in 1985 terms]. After that, spatial decentralization sets in" (Wheaton and Shishido 1981, p. 29).

Vining and his associates examined, in a series of articles, trends in the distribution of *t total*, not just urban, populations in DCs. They found that in the 1970s, virtually all DCs experienced, for the first time in the historical record, either radically lower rates of net migration towards or actual net migration away from core regions (Vining and Kontuly 1978; Vining and Pal-

lone 1982). Consistent with the rule proposed for urban populations by Wheaton and Shishido, this tended to occur at a *per capita* GDP level of approximately USD 5,000, albeit with exceptions, such as Japan, in which concentration continued to rise long after national income had reached USD 5,000. Population redistribution trends in the LDCs through the 1980 round of censuses were then examined by Vining (1986), who concluded as follows:

The basic pattern first observed in Western countries, i.e., of a close association between economic development and population concentration, appears to be being followed in an entirely predictable fashion by non-Western countries.

He added, however, a *caveat*:

Indeed, the preponderance of the evidence from those countries studied here . . . suggests that only a slackening of the pace of population redistribution towards the core can be expected when this level of development [i.e., the inflection point found by Wheaton and Shishido] is reached, not an actual de-concentration. (Vining 1986, p. 18)

Nor has the course of population concentration in DCs since 1980 been straightforward (Cochrane and Vining 1986; Champion 1994): Japan, for example, having experienced population deconcentration during the 1970s, experienced "reconcentration," especially in the Tokyo metropolitan region, during the early 1980s (Tsuyo and Kuroda 1989). However, Champion (1989, p. 241) concluded from nine DC case studies that the "the main weight of the evidence" favored the interpretation that the stalling of deconcentration in some DCs in the 1980s was an anomaly, not the reversal of a trend.

Thus, we have three USD 5,000 rules:

- (a) the original Wheaton-Shishido rule, that *urban* population concentration rises until national GDP reaches USD 5,000, at which point it begins to fall;
- (b) *ditto* for *total* population; and
- (c) *ditto* except that net migration into the core region does not actually turn negative at USD 5,000; it merely declines dramatically.

Of these, it is the second, which is most comprehensive and least equivocal, to which we will refer as "the" USD 5,000 rule.

Even in weakened form, the USD 5,000 rule is by no means universally accepted. A plausible optimistic view (e.g., Critchfield 1979, 1981), holds that the DC-paradigm, in which redistribution trends are driven by agglomeration and scale economies in industry, is inappropriate to those developing countries (such as Bangladesh, China and others) where a dominant rural sector is characterized by rapid technical progress, a good supply of skilled workers and the potential for reaping agriculture-based economies of scale in transport, communication, storage, research and development, service extension and the like. The combination of lower rural fertility and higher rural incomes in consequence of improved agricultural productivity is, in this interpretation, giving rise to unprecedented rural welfare gains, which will be reflected in diminished rates of rural-urban migration and augmented rates of return migration at *per capita* income levels far below USD 5,000.

Another view, often expressed by researchers at the World Bank (e.g., World Bank 1986), is based on the familiar neoclassical push-pull model of migration and emphasizes the role of price distortions and superior access to amenities, both often grouped together under the rubric "urban bias," privileging the urban population. Thus, many aspects of structural adjustment — devaluation of over-valued exchange rates that favor urban consumers at the expense of rural producers, dismantlement of state agricultural marketing boards with their artificially low purchasing prices, elimination of subsidies in the pricing of urban services and infrastructure and so on — should slow rural-urban migration. Gilbert (1993) attributes the reduction in Third World urban growth rates observed during the 1980s to three factors:

- (a) changes in the terms of trade that favored tradeable goods at the expense of non-tradeables, and the switch from import-substituting to export-promoting industrial strategy — this is the bright side of the World Bank model;
- (b) recession, the collapse of urban employment and immiseration of substantial portions of the urban population; this is the dark side (c.f., Gilbert 1994); and
- (c) the transformation of primate cities into more dispersed, polycentric urban forms.

3. NEW EVIDENCE

In Table 1 of Appendix A, the LDC census data presented by Vining (1986) are updated through the 1990 round of censuses, and data for many new countries are presented. The chosen index of population redistribution is the difference ($\times 10^3$) between the core region's exponential population growth rate and that of the country as a whole. On the assumption that core region and national rates of natural increase are equal, this difference is equal to the rate of net migration into the core region. In most LDCs, rates of natural increase are lower in core regions because of rural-urban fertility differentials; the difference between core and peripheral region population growth rates is, however, dominated by the net migration rate.

The net migration rate is a place-specific characteristic; it does not refer to a particular individual behavior and thus does not have the same neat probabilistic interpretation of a mortality rate or a fertility rate. Nonetheless, at the risk of some looseness of usage, we employ the term "net migration rate into the core region" as opposed to more cumbersome alternatives such as "rate of net migration experienced by the core region." Estimates of out-migration rates in LDC peripheral regions, whether obtained indirectly from origin and duration of residence questions on census questionnaires, or directly through population registers or sample surveys, would have the desired probabilistic interpretation; however, these are not available broadly enough to make possible a comprehensive international survey of the sort presented here.

The data source for estimates of *per capita* income is the 1993 update of the Penn World Table (Mark 5.1) discussed by Summers and Heston (1993) and available from the National Bureau for Economic Research. The statistic

reported is inter-censal average income, estimated as the mean of the two endpoints.

Countries previously covered

Countries in which previously observed population redistribution trends continued. New censuses in those countries that were previously covered indicate that significant population concentration continues to occur in **Bangladesh** (1981-91, *per capita* income of USD 1,122 during the inter-censal interval), **Colombia** (1973-85, USD 2,639), **Ecuador** (1982-90, USD 2,968), **India** (1981-91, USD 929), **Egypt** (1976-86, USD 1,568), **Philippines** (1980-90, USD 1,810) and **Turkey** (1980-85, USD 2,956 and 1985-90, USD 3,385).

Net migration into the core region continues to be almost *nil* in **Ireland** (1981-86, USD 7,054 and 1986-91, USD 8,112) and **Uruguay** (1975-85, USD 3,898); and to be modest at a surprisingly low level of *per capita* income in **Tunisia** (1975-84, USD 2,334). International out-migration, which might invalidate the standard economic model of population concentration, is a major demographic factor in Ireland and at least a significant one in Tunisia. The previously observed deceleration in the rate of net migration into the Santiago region continued in **Chile** (1982-92, USD 3,653), and **Peru** (1981-93, USD 2,503) appears to be undergoing a similar process.

The population deconcentration that first manifested itself in **Argentina** at a *per capita* income level fairly close to USD 5,000 continued (1980-91, USD 4,129). The long established deconcentration trends in **Israel** and **Sri Lanka**, unusual cases whose peculiarities were discussed by Vining (1986), continued during the 1970s (1972-83, USD 7,358) and 1980s (1981-91, USD 2,018), respectively.

The model according to which improvements in rural living standards alleviate migratory pressures early in the development process would seem to be particularly relevant to Southeast Asia, but the evidence is mixed. In **South Korea**, where the region around Seoul has traditionally exerted an extraordinarily strong attraction, concentration continued in the last two inter-censal intervals (1980-85, USD 3,695 and 1985-90, USD 5,238). In **Malaysia** (1980-90, USD 4,338), there is no evidence of a deceleration of net migration into the core region. We were unable to obtain sufficiently detailed census data to present an update for **Indonesia** (1981-90, USD 1,700). It appears, however, that while the growth rate of Jakarta itself decelerated (from 3.4% per year in 1971-81 to 2.4% in 1981-90), population growth in the surrounding areas of Bogor, Bekasi and Tamnggerang was on the order of 5% per year (Hull 1994). In view of the deceleration of population growth observed in Yogyakarta, and in East and Central Java, due in part to rapid fertility decline and in part to out-migration, it appears safe to conclude that population concentration continued.

Countries in which there has occurred a reversal of previously observed population redistribution trends. In **Thailand** (1980-92, USD 2,839), the latest census reveals modest net out-migration from Bangkok and its environs. This would appear to be a clear exception to the USD 5,000 rule, and it seems plausible that rising environmental costs and disamenities are playing a role.

The USD 5,000 rule in its naive form — a decisive reversal of net migration trends occurring at almost precisely the moment GDP passes USD 5,000 — is illustrated by the cases of **Greece** (1981-91, USD 6,278), **Mexico** (1980-90, USD 5,543) and, less dramatically, **Portugal** (1981-90, USD 5,809). In the case of Mexico City, research suggests that deterioration of the urban environment is a contributing factor (Izazola and Marquette 1994).

Spain (1981-90, USD 8,492) exemplifies Vining's weakened interpretation of the rule: the net migration rate dropped dramatically when *per capita* GDP passed the USD 5,000 mark, but did not actually turn negative (and then only slightly so) until it was on the order of USD 7,500. **Taiwan**, (1986-92, USD 7,377) may be following a similar path. **Panama** (1980-90, USD 3,162) and **Cuba** (1970-81, per capita income not available), where reversals of net migration into core regions occurred at surprisingly low levels of development, may be exceptions to the USD 5,000 rule, but neither is a strong counter-example. In **Brazil** (1980-91, USD 4,080), the rate of net migration into Sao Paulo *state* has fallen into the low single digits, but it was never particularly high. The dominant role of the oil sector makes it difficult to comment on the cases of **Algeria** (1977-87, USD 2,669) and **Venezuela** (1981-91, USD 6,389).

Countries here covered for the first time

Countries experiencing population concentration. Leaving aside for the moment countries in sub-Saharan Africa, very few of which were covered previously, and the small island nations, most recent observations reveal population concentration in **El Salvador** (1971-921, per capita income of USD 1,741), **Nepal** (1971-81, USD 747), **Nicaragua** (1963-70, USD 1,955), **Paraguay** (1982-92, USD 2,381), **Mongolia** (1969-79, per capita income not available), **Papua New Guinea** (1980-90, USD 1,513) and **Morocco** (1971-82, USD 1,599). All of these cases conform to the USD 5,000 rule.

Countries experiencing deconcentration. The rate of net migration into the core region is extremely low or negative at levels of per capita income far below USD 5,000 in the following new countries: **Costa Rica** (1973-84, USD 3,193), **Guatemala** (1973-81, USD 2,336), **Honduras** (1974-88, USD 1,303), **Jamaica** (1982-91, USD 2,358), **Myanmar** (1973-83, USD 455), **Vietnam** (1979-89, per capita income not available) and **Iraq** (1977-87, USD 4,615). **Bolivia** presents an odd case, having undergone a significant deconcentration during the most recent inter-censal interval (1976-92, USD 1,741) without ever apparently having passed through the concentration phase.

Bolivia, Costa Rica, Guatemala, Honduras and Jamaica are all small, densely populated countries. Guatemala and Jamaica also have elevated high rates of international out-migration. Vietnam has a rigorous national population redistribution policy aimed at reducing urban population concentration and developing sparsely populated areas. Moreover, constant definitional changes make data interpretation difficult (Banister 1993). The case of Iraq is similarly jejune: both military recruitment and attempts to avoid it may have artificially reduced the population of Baghdad in the 1987 census. This leaves only **Myanmar** as a new exception to the USD 5,000 rule, and it is not a very compelling one.

Sub-Saharan Africa and the small island states. Sub-Saharan Africa is of special interest: not only is this region experiencing the most rapid expansion of primate cities, but also it is the focus of the "urban bias" model of concentration. Data problems are acute (so severe, in fact, in the notorious case of Nigeria that we chose not to present data for this country), but, since improvements in census accuracy in Africa are greater for peripheral than for core regions, all of the data presented here tend to underestimate actual concentration trends.

Citing only the most recent observation, the data reveal acutely elevated rates of net migration (in excess of roughly 20 per 1,000) into core regions practically across the continent: in **Botswana** (1981-91, per capita income of USD 2,553), **Burkina Faso** (1975-85, USD 477), **Congo** (1974-84, USD 2,099), **Ethiopia** (1962-70, USD 271), **Gambia** (1973-83, USD 671), **Liberia** (1974-84, USD 925), **Mauritania** (1977-88, USD 987), **Sierra Leone** (1974-85, USD 974), **Tanzania** (1978-88, USD 523) and **Zimbabwe** (1982-92, USD 1,280). "Hyper-migration" cannot, by definition, continue for very long. As the cases of **Zambia** (1980-90, USD 816) and **Niger** (1977-88, USD 560) illustrate, rates of net migration into the core region can decline not only precipitously, but more importantly, to relatively moderate levels.

In most countries in the African region, the structural adjustment process has led to the collapse of formal urban employment and wages, with consequent disappearance of the much vaunted rural-urban welfare gap (Jamal and Weeks 1988; Robinson 1990). The data presented here, scattered though they are, indicate that migration into African primate cities continues apace despite staggering declines in urban real wages, increases in unemployment, public sector retrenchment and so on. To cite only two examples, Jamal and Weeks report that real urban wages in Sierra Leone dropped by over 80% between 1970 and 1986, yet, the already elevated rate of net migration into the Western *area* actually increased between 1963-74 and 1974-85, from 23.3 to 28.2 per 1,000. In Tanzania, net migration into the Dar es Salaam *region* proceeded at the brisk rate of 47.2 per 1,000 in 1967-78, a period during which the real minimum wage is estimated to have declined by something like 40%. There has been a further, subsequent drop of over 60% in the 1980s, yet the net migration rate was still 18.9 per 1,000 in 1978-88. In **Ghana** (1970-84, USD 822) and **Côte d'Ivoire** (1975-88, USD 1,440), population concentration trends were not particularly extreme even during periods characterized by extreme distortions of the "urban bias" variety. On the face of the matter, then, it appears that "urban bias" is only a contributing factor, not the driving factor behind rapid African urbanization.

Population movements in **Sudan** (1983-93, USD 1,039) and **Uganda** (1980-91, USD 707) are dominated by refugee movements. The apparent deconcentration in **Mozambique** (1970-80, USD 1,177) is an illusion caused by the combination of improving census accuracy and the civil war. Deconcentration is also observed in **Burundi** (1979-90, USD 495), **Guinea** (1977-83, USD 391), and **Malawi** (1977-87, USD 480). The last of these is a possibly interesting case — it may not be coincidental that Malawi has one of the strongest economic and political decentralization policies in sub-Saharan Africa.

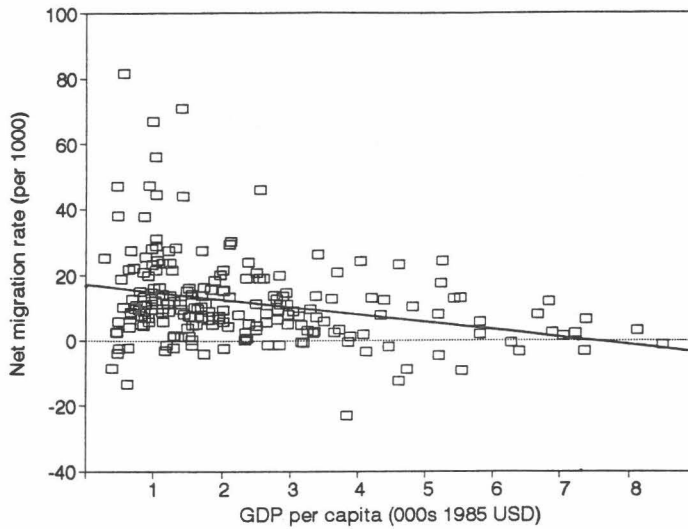


FIGURE 1. Relation Between Net Migration Rate and Per Capita GDP

The small island states present a mixed and not particularly interesting picture. If there is one conclusion that can be elicited, it is that these countries seem to follow no distinctive pattern. **Mauritius** (1983-90, USD 4,737) is an unusual case, but this is not surprising; it, like Sri Lanka, is a perpetual demographic outlier.

4. GRAPHICAL SUMMARY

In Figure 1, we plot the net migration rate into the core region (NMR) against *per capita* income (Y) and draw the least squares line. The NMR is estimated, as described above, by the difference between the core region and national population growth rates. Income data are the Summers-Heston data referred to previously.

The least squares line is given by:

$$NMR_{it} = 17.43941 - 0.00238 Y_{it}$$

(11.034) (-4.399)

with $R^2 = 0.089$, $N = 199$, and i as the index for the country and t for the inter-censal interval. The pronounced outliers in the plot more or less offset each other, so there is little purpose in deleting them. The calculated x -intercept of USD 7,327 should not be subjected to too much solemn interpretation in view of the mediocre fit. On the other hand, nothing in the scatterplot bodes well for the USD 5,000 rule in its naive form. If anything, Figure 1 reinforces a need for caution. The NMR is negatively (albeit weakly) correlated with *per capita* income; however, it may remain positive after *per capita* income is well past the USD 5,000 point.

5. CONCLUSION

The experience of DCs in the 1970s and 1980s conformed roughly to predictions of a model that suggested that population redistribution towards core regions would cease at a level of national *per capita* income of about USD 5,000. Evidence from LDCs through the 1980 round of censuses suggested that the USD 5,000 point was marked only by a slowing of net migration into the core, not by an outright reversal of trend. The body of evidence through the 1990 round of censuses reinforces the need for caution. While there is a weak negative correlation between the rate of net migration into the core region and *per capita* income, the share of population residing in the core region may continue to rise when *per capita* income is well beyond USD 5,000.

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APPENDIX A: POSTWAR POPULATION REDISTRIBUTION

In Table 1 on the following pages, a highlighted table cell is used to denote new census observations, in the case of countries covered previously by Vining (1986) and to denote countries not covered previously. Unavailable per capita GDP data are indicated by "na" for "not available." A handful of pre-War census observations in Vining (1986) has been dropped.

Every attempt has been made to track down and control for administrative boundary changes; the authors would be grateful to hear from readers who are aware of any changes which they appear to have missed or which have just taken place; *ditto* new census results as they become available.

TABLE 1. Postwar Population Redistribution by Country

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
<i>Latin America and Caribbean</i>							
Argentina	1947	15,894	7,255	45.6			
Federal Capital; Buenos Aires <i>province</i>	1960	20,014	9,733	48.6	4.9	3,164	
	1970	23,264	11,747	50.3	3.3	3,729	
	1980	27,948	13,788	49.3	-1.9	4,455	
	1991	32,609	15,543	47.7	-3.5	4,129	(80-90)
Bolivia	1950	3,018	948	31.4			
La Paz <i>department</i>	1976	4,613	1,465	31.8	0.4	1,563	
	1992	6,421	1,901	29.6	-4.2	1,741	(76-90)
Brazil	1950	51,942	9,128	17.6			
Sao Paulo <i>state</i>	1960	70,070	12,809	18.3	3.9	1,502	
	1970	93,139	17,772	19.1	4.3	2,080	
	1980	119,099	25,041	21.0	9.7	1,413	
	1991	146,918	31,547	21.5	1.9	4,080	(80-90)
Chile	1952	5,933	1,755	29.6			
Santiago <i>province</i> (1952-70); Metropoli- tan Santiago (1982-90)	1960	7,374	2,437	33.0	13.9	2,752	
	1970	8,885	3,231	36.4	9.6	3,290	
	1982	11,275	4,295	38.1	5.9	3,501	
	1992	13,232	5,170	39.1	2.5	3,653	(82-90)

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Colombia	1951	11,548	1,624	14.1		
<i>Cundinamarca department; Bogota special district</i>	1964	17,632	2,820	16.0	9.9	1,639
	1973	22,572	4,072	18.0	13.4	2,105
	1985	27,838	5,366	19.3	5.5	2,639
	1993	35,886	8,175	22.8	9.0	3,042 (85–90)
Costa Rica	1973	1,872	695	37.1		
<i>San Juan province</i>	1984	2,419	890	36.8	-0.8	3,193
Cuba	1953	5,829	1,539	26.4		
<i>Habana province (1953–70); Habana and Ciudad de Habana provinces (1981)</i>	1970	8,569	2,311	27.0	1.7	na
	1981	9,724	2,515	25.9	-3.8	na
Dominican Republic	1950	2,136	239	11.1		
<i>National district</i>	1960	3,047	465	15.3	31.0	1,041
	1970	4,009	813	20.3	28.4	1,329
	1981	5,648	1,551	27.5	27.6	1,224
Ecuador	1950	3,203	969	30.3		
<i>Pinchincha and Guayas provinces</i>	1962	4,476	1,567	35.0	12.2	1,301
	1974	6,501	2,494	38.4	7.6	1,944
	1982	8,051	3,424	42.5	12.9	2,802
	1990	9,648	4,271	44.3	5.0	2,968

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^1$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
El Salvador	1950	1,856	296	16.0			
San Salvador department	1961	2,511	463	18.4	13.2	977	
	1971	3,541	731	20.6	11.3	1,206	
	1992	5,048	1,478	29.3	16.6	1,741	(71–90)
Guatemala	1973	5,160	1,108	21.4			
Guatemala department	1981	6,054	1,311	21.7	0.5	2,336	
Haiti	1950	3,097	654	21.1			
West department	1971	4,330	1,206	27.9	13.2	na	
	1982	5,054	1,552	30.7	8.9	863	
Honduras	1945	1,200	174	14.5			
Françisco Morazon and Cortes departments	1950	1,369	316	23.1	100.0	na	
	1961	1,885	484	25.7	9.7	974	
	1974	2,657	823	31.0	14.4	1,122	
	1988	4,449	1,412	31.7	1.7	1,303	
Jamaica	1960	1,610	666	41.4			
Kingston, St. Andrews, St. Mary and St. Catherine provinces	1970	1,848	828	44.8	8.0	2,229	
	1982	2,190	1,023	46.7	3.5	2,487	
	1991	2,366	1,113	47.0	0.8	2,358	(82–90)

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Mexico	1950	25,791	4,716	18.3		
Mexico and Morales <i>states</i> ; Federal Dis- trict	1960	34,923	7,155	20.5	11.4	2,494
	1970	48,225	11,323	23.5	13.6	3,380
	1980	66,847	17,395	26.0	10.2	4,829
	1990	81,141	19,248	23.7	-9.3	5,543
Nicaragua	1950	1,050	586	56.1		
Pacific <i>region</i>	1963	1,536	870	56.6	1.1	1,405
	1970	1,878	1,116	59.5	6.8	1,955
Panama	1950	805	248	30.8		
Panama <i>province</i> (excl. Canal Zone)	1960	1,076	372	34.6	11.5	1,394
	1970	1,428	577	40.4	15.6	2,009
	1980	1,789	829	46.3	13.7	2,894
	1990	2,329	1,074	46.0	-0.6	3,162
Paraguay	1972	2,358	699	29.6		
Asuncion and Central <i>departments</i>	1982	3,030	952	31.4	5.8	2,012
	1992	4,123	1,367	33.2	5.4	2,381

(82-90)

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Peru	1961	9,907	2,245	22.7	20.7	
<i>Lima department; Callao constitutional province</i>	1972	13,538	3,794	28.0	19.3	2,355
	1981	17,005	5,189	30.5	9.5	2,824
	1993	22,128	7,125	32.2	4.5	2,503 (81–90)
Uruguay	1963	2,596	1,461	56.3	7.1	
<i>Montevideo and Canelones provinces</i>	1975	2,788	1,563	56.0	–0.4	3,857
	1985	2,931	1,663	56.7	1.2	3,898
Venezuela	1950	5,035	1,419	28.2		
<i>Miranda, Aragua and Carabobo states; Federal District</i>	1961	7,524	2,445	32.5	12.9	5,436
	1971	10,722	3,919	36.6	11.9	6,843
	1981	14,570	5,446	37.4	2.2	7,228
	1990	19,325	7,007	36.3	–3.4	6,389
<i>East Asia and Pacific</i>						
Indonesia	1961	63,060	6,705	10.6		
<i>(Java only) Bogor, Bekasi, Tangerang and Serang Kabupaten; Bogor Kota- madya; DKI Jakarta</i>	1971	76,086	9,200	21.1	12.9	687
	1981	91,270	13,027	14.3	16.6	1,091

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Republic of Korea	1955	21,502	3,928	18.3		
Seoul city; Gyeonggi province (1955–80);	1960	24,989	5,194	20.8	25.8	894
Seoul and Incheon cities, Gyeonggi province (1985–90)	1966	29,193	6,911	23.7	21.7	1,037
	1970	31,435	8,879	28.2	44.1	1,427
	1975	34,707	10,929	31.5	21.7	2,013
	1980	37,449	13,202	35.5	24.1	2,371
	1985	40,448	15,828	39.1	20.9	3,695
	1990	43,520	18,586	42.7	17.5	5,238 (85–90)
Malaysia	1947	4,908	711	14.5		
Selangor state; Federal territory (excl. Sarawak)	1957	6,279	1,013	16.1	10.8	na
	1970	8,810	1,630	18.5	10.5	1,695
	1980	10,945	2,346	21.4	14.7	2,945
	1990	14,182	3,489	24.6	12.5	4,338 (80–90)
Mongolia	1963	10,171	2,237	22.0		
Ulan Bator aimak	1969	11,976	2,674	22.3	2.5	na
	1979	15,950	4,023	25.2	12.2	na
Myanmar	1973	28,085	6,856	24.4		
Yangon and Mandalay divisions	1983	34,125	8,544	25.0	2.5	455

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Papua New Guinea	1966	2,150	135	6.3		
Central <i>province</i> ; National Capital District	1971	2,342	169	7.2	27.8	1,703
	1980	2,978	229	7.7	7.1	1,697
	1990	3,689	334	9.0	16.3	1,513
Philippines	1948	19,234	2,745	14.3		
Bataan, Bulacan, Cavite, Laguna and Rizal <i>provinces</i> ; Metropolitan Manila	1960	27,088	4,147	15.3	5.8	942 (50–60)
	1970	36,684	6,449	17.6	13.8	1,244
	1975	42,071	7,981	19.0	15.2	1,496
	1980	47,914	9,639	20.1	11.7	1,746
	1990	60,477	13,263	21.9	9.0	1,810
Taiwan	1956	9,311	1,818	19.5		
Taipei and Taoyuan <i>hsien</i> ; Taiwan <i>municipality</i> ; Keelung <i>city</i>	1966	13,348	3,007	22.5	14.3	1,560
	1970	14,693	3,736	25.4	30.3	2,132
	1975	16,206	4,554	28.1	20.0	2,829
	1980	17,969	5,700	31.7	24.2	4,049
	1986	19,454	6,884	35.4	13.2	5,535
	1992	20,656	7,599	36.9	6.5	7,377 (86–90)

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
Thailand	1947	17,433	1,476	8.5			
Phra Nakhon, Thon Buri, Nonthanburi and Prakan <i>changwats</i> (1947–70);	1960	26,258	2,567	9.8	11.1	888	(50–60)
	1970	34,397	3,675	10.7	8.9	1,219	
Bangkok and Samat Prakan <i>changwats</i> (1980–90)	1980	44,278	5,547	12.5	15.9	1,827	
	1992	57,789	7,133	12.3	–1.2	2,839	(80–90)
Vietnam	1979	52,742	7,270	13.8			
Ho Chi Minh, Haiphong and Hanoi <i>cities</i>	1989	64,376	8,428	13.1	–5.2	na	
<i>South Asia</i>							
Bangladesh	1951	41,932	4,073	9.7			
Dhaka <i>district</i>	1961	50,840	5,096	10.0	3.1	na	
	1974	71,479	7,612	10.6	4.7	853	
	1981	87,120	10,014	11.5	10.9	966	
	1991	104,766	13,151	12.5	8.8	1,122	(81–90)
India	1961	424,836	12,246	2.9			
Calcutta, Greater Bombay	1971	528,918	16,647	3.1	8.8	671	
	1981	658,141	23,107	3.5	10.9	747	
	1991	843,931	31,805	3.8	7.1	929	(81–90)
Nepal	1981	15,023	422	2.8			
Kathmandu <i>district</i>	1991	18,491	675	3.6	38.0	868	(81–86)

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
Pakistan	1961	42,880	2,135	5.0			
Karachi <i>division</i>	1971	65,309	3,607	5.5	9.4	790	
	1981	83,782	5,353	6.4	16.2	1,006	
Sri Lanka	1946	6,657	1,420	5.0			
Colombo <i>district</i> (1946–71); Colombo and Gampaha <i>districts</i> (1981–91)	1953	8,098	1,709	21.1	-1.5	na	
	1963	10,582	2,207	20.9	-1.2	1,194	
	1971	12,690	2,672	21.1	1.2	1,286	
	1981	14,850	3,088	20.8	-1.2	1,565	
	1991	17,261	3,500	20.3	-2.5	2,018	(81–89)
<i>North Africa and Middle East</i>							
Algeria	1954	9,530	1,110	11.6			
Alger and Bleda <i>wilayate</i>	1966	12,102	1,648	13.6	13.0	na	
	1977	15,645	2,519	16.1	15.2	2,022	
	1987	23,039	3,663	15.9	-1.3	2,669	
Egypt	1947	18,976	3,639	19.2			
Cairo, Giza and Kalyubia <i>governates</i>	1960	25,984	5,674	21.8	10.0	739	(50–60)
	1966	29,942	7,082	23.7	13.3	869	
	1976	36,626	9,172	25.0	5.7	1,133	
	1986	48,205	12,267	25.4	4.8	1,568	

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Iraq	1965	8,047	1,597	19.8		
Baghdad City <i>governate</i>	1977	12,000	3,190	26.6	24.4	5,256
	1987	16,335	3,841	23.5	-12.3	4,615
Israel	1948	717	556	77.5		
Haifa, Central and Tel Aviv <i>districts</i> (excl. Arab population)	1961	1,932	1,395	72.2	-5.5	na
	1972	2,687	1,844	68.6	-4.6	5,218
	1983	3,350	2,219	66.2	-3.2	7,358
Jordan	1961	901	434	48.2		
Amman <i>governate</i> (excl. West Bank)	1979	2,152	1,188	55.2	7.6	1,861
Morocco	1960	11,626	1,562	13.0		
Casablanca and Rabat-Sale <i>prefectures</i> ; Ben Slimane <i>province</i> ; Kenitra <i>district</i>	1971	15,379	2,704	17.6	24.5	1,056
	1982	20,265	3,982	19.7	10.1	1,599
Syria	1960	4,565	1,003	22.0		
Damascus <i>city</i> ; Damascus <i>mohafazat</i>	1970	6,305	1,458	23.1	5.1	1,860
	1981	9,172	2,170	23.7	2.1	3,338
Tunisia	1966	4,533	1,443	31.8		
Tunis <i>district</i> ; Nabeul, Zaghoun and Birzete <i>governates</i>	1975	5,588	1,861	33.3	5.0	1,616
	1984	6,966	2,370	34.0	2.4	2,334

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP per capita (1985 USD; inter-censal average)
		National	Core			
<i>Sub-Saharan Africa</i>						
Botswana	1971	574	18	3.1		
Gaborone district	1981	941	60	6.4	71.0	1,406
	1991	1,327	134	10.1	46.1	2,553 (81–89)
Burkina Faso	1975	5,638	503	8.9		
Kadiogo and Horiet provinces	1985	7,965	1,041	13.1	38.2	477
Burundi	1979	4,029	460	11.4		
Bujumbura-ville and Bujumbura-rural provinces	1990	5,365	596	11.1	-2.5	495
Congo	1974	1,320	302	22.9		
Brazaville commune	1984	1,909	585	30.6	29.4	2,099
Côte d'Ivoire	1975	6,703	1,389	20.6		
Abidjan department	1988	10,813	2,492	23.1	8.2	1,440 (78–90)
Ethiopia	1962	20,380	4,060	19.9		
Shoa regionve	1970	20,487	4,993	24.4	25.2	271
Gambia	1973	493	79	16.0		
Banjul and Kombo St. Mary administra- tive divisions	1983	696	147	21.1	27.6	671

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Ghana	1970	8,559	903	10.5		
Greater Accra <i>region</i>	1984	12,296	1,431	11.6	7.0	882
Guinea	1977	4,527	578	12.8		
Conakry <i>region</i>	1983	5,781	705	12.2	-8.5	391
Guinea-Bissau	1950	517	18	3.5		
Bissau <i>autonomous region</i>	1979	777	109	14.0	48.1	na
Kenya	1962	8,634	344	4.0		
Nairobi <i>area</i>	1969	10,957	509	4.6	21.9	638
	1979	15,327	828	5.4	15.1	802
Lesotho	1966	969	202	20.8		
Maseru <i>district</i> (incl. migrant workers temporarily residing in South Africa)	1976	1,217	222	18.3	-13.3	614
	1986	1,578	311	19.7	7.7	818
Liberia	1962	1,016	169	16.6		
Montserrado <i>county</i>	1974	1,503	322	21.4	21.1	855
	1984	2,102	549	25.9	19.8	925
Madagascar	1966	6,200	1,580	25.5		
Tananarive <i>province</i>	1975	7,604	2,168	28.5	12.5	1,035

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Malawi	1966	4,040	498	12.3		
Lilongwe <i>district</i>	1977	5,547	704	12.7	2.7	460
	1987	7,988	976	12.2	-3.8	480
Mali	1976	6,395	1,351	21.1		
Bamako <i>district</i> ; Koulikoro <i>region</i>	1985	7,838	1,745	22.3	5.8	487
Mauritania	1965	1,098	78	7.1		
Nouakchott <i>district</i>	1977	1,339	135	10.1	29.2	1,048
	1988	1,864	393	21.1	67.1	987
Mozambique	1960	6,604	3,528	53.4		
Maputo <i>city</i> ; Maputo, Nampula and Zambezi <i>provinces</i>	1970	8,169	4,264	52.2	-2.3	1,294
	1980	11,674	5,901	50.5	-2.9	1,177
Namibia	1970	737	436	59.2		
Owambo, Kavango and Windhoek <i>dis-</i> <tricts< td=""> <td>1981</td> <td>1,033</td> <td>668</td> <td>64.6</td> <td>8.1</td> <td>2,975</td> </tricts<>	1981	1,033	668	64.6	8.1	2,975
	1991	1,402	910	64.9	0.3	2,323 (81-90)
Niger	1960	2,980	34	1.1		
Niger <i>city</i>	1977	5,104	233	4.6	81.6	
	1988	7,222	392	5.4	10.2	560

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
Rwanda	1978	4,832	698	14.4			
Kigali <i>prefecture</i> (1978); Kigali <i>prefecture</i> and Kigali <i>city</i> (1991)	1991	7,149	1,151	16.1	8.3	663	(78–90)
Sierra Leone	1948	1,858	125	6.7			
Western <i>area</i>	1963	2,180	195	8.9	19.0	na	
	1974	2,735	316	11.6	23.3	981	
	1985	3,516	554	15.8	28.2	974	
Sudan	1955/56	10,263	246	2.4			
Khartoum <i>state</i>	1973	14,819	738	5.0	40.6	na	
	1983	21,593	1,344	6.2	56.4	1,030	
	1993	24,941	3,413	13.7	44.7	1,039	(83–90)
Tanzania	1967	12,313	356	2.9			
Dar es Salaam <i>region</i>	1978	17,528	852	4.9	47.2	471	
	1988	23,174	1,361	5.9	18.9	523	
Uganda	1969	9,535	331	3.5			
Kampala <i>district</i>	1980	12,636	459	3.6	4.1	651	
	1991	16,672	774	4.6	22.3	707	(80–90)

TABLE 1. Postwar Population Redistribution by Country. (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
Zambia	1963	3,490	739	21.2			
Copperbelt and Lusaka <i>provinces</i>	1969	4,057	1,170	28.8	47.4	938	
	1980	5,675	1,925	33.9	14.7	973	
	1990	7,818	2,787	35.6	5.0	816	
Zimbabwe	1969	5,099	880	17.2			
Mashonaland East (1969); Mashonaland East and Harare <i>provinces</i> (1982, 1992)	1982	7,608	1,496	19.7	10.0	1,140	
	1992	10,402	2,512	24.1	21.7	1,280	(82–90)
<i>Europe</i>							
Greece	1951	7,633	1,556	20.4			
Greater Athens <i>region</i> ; Attica <i>depart-</i> <i>ment</i>	1961	8,389	2,058	24.5	18.5	1,894	
	1971	8,769	2,798	31.9	26.3	3,414	
	1981	9,740	3,369	34.6	8.1	5,197	
	1991	10,264	3,523	34.3	–0.8	6,278	(81–90)
Ireland	1951	2,961	888	30.0			
Dublin, Kildare, Meath and Wicklow <i>counties</i> ; Dublin <i>county borough</i>	1956	2,898	898	31.0	6.5	2,805	
	1961	2,818	906	32.2	7.4	3,122	
	1966	2,884	989	34.3	12.9	3,605	
	1971	2,978	1,062	35.7	7.8	4,342	

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP per capita (1985 USD; inter-censal average)	
		National	Core				
Ireland (Continued)	1979	3,368	1,256	37.3	5.6	5,814	
	1981	3,440	1,289	37.5	2.4	6,885	
	1986	3,541	1,336	37.7	1.4	7,054	
	1991	3,523	1,350	38.3	3.1	8,112	(86–90)
Portugal	1950	8,441	1,551	18.4			
Lisboa, Setubal <i>districts</i>	1960	8,889	1,760	19.8	7.5	1,540	
	1970	8,668	2,076	24.0	19.1	2,596	
	1981	9,803	2,711	27.7	13.1	4,208	
	1990	9,853	2,778	28.2	1.9	5,809	(81–90)
Spain	1950	27,977	4,158	14.9			
Barcelona, Madrid <i>provinces</i>	1960	30,431	5,484	18.0	19.3	2,535	
	1970	34,003	7,722	22.7	23.0	4,607	
	1981	37,746	9,346	24.8	7.9	6,668	
	1990	38,999	9,541	24.4	-1.3	8,492	
Turkey	1950	20,947	2,755	13.2			
Istanbul, Ankara and Izmir <i>provinces</i>	1955	24,065	3,565	14.8	23.8	1,242	
	1960	27,755	4,267	15.4	7.4	1,517	

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^1$)	GDP <i>per capita</i> (1985 USD; inter-censal average)	
		National	Core				
Turkey (Continued)	1965	31,391	5,173	16.5	13.9	1,699	
	1970	35,605	6,488	18.2	20.1	1,968	
	1975	40,348	8,164	20.2	20.9	2,506	
	1980	44,737	9,573	21.4	11.2	2,843	
	1985	50,664	11,466	22.6	11.2	2,956	
	1990	56,473	13,241	23.4	7.1	3,385	
<i>Small Island States</i>							
Bahrain	1959	143	62	43.3			
<i>Manama division</i>	1965	182	79	43.4	0.2	na	
	1971	216	89	41.2	-8.7	na	
	1981	350	122	34.9	16.7	na	
Cape Verde	1980	289	56	19.4			
<i>Praia county</i>	1990	337	83	24.6	23.7	1,129	(80–89)
Comoros	1966	212	62	29.2			
(excl. Mayotte) Grand Comore Island; <i>Centre prefecture</i>	1980	335	95	28.4	-2.2	627	
Cyprus	1946	450	145	32.4			
<i>Nicosia district</i>	1960	574	204	35.6	6.5	1,807	(50–60)
	1973	632	233	36.8	2.6	3,363	

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP per capita (1985 USD; inter-censal average)
		National	Core			
Fiji	1966	476	154	32.3		
Central <i>division</i>	1976	588	207	35.2	8.4	2,645
	1986	715	260	36.4	3.2	3,263
Kiribati	1947	28	4	12.9		
Tarawa Island	1963	38	8	20.8	24.4	
	1968	44	13	28.6	67.8	na
	1973	48	17	35.9	36.2	na
	1978	52	20	39.0	16.5	na
	1990	72	29	40.3	3.8	na
Maldives	1977	143	34	23.6		
Male', Male' Atoll	1985	180	55	30.3	31.3	na
	1990	214	66	30.7	1.9	na
Marshall Islands	1980	31	12	38.2		
Majur Atoll (excl. U.S. military forces)	1988	43	20	45.3	22.9	na
Mauritius	1976	851	134	15.7		
Port Louis <i>district</i>	1983	1,000	134	13.4	-23.0	3,838
	1990	1,057	133	12.6	-9.0	4,737

TABLE 1. Postwar Population Redistribution by Country (Continued)

Country and Core Region Constituent Subdivisions	Year	Population (thousands)		Share of Core (%)	Core – National Growth Rate ($\times 10^3$)	GDP <i>per capita</i> (1985 USD; inter-censal average)
		National	Core			
Seychelles	1960	41	16	39.5		
Metropolitan Victoria; Anse aux Pins and Bel Ambre <i>parishes</i>	1971	53	21	40.1	1.4	1,508
	1977	62	26	41.6	9.5	2,006
Solomon Islands	1970	161	35	21.9		
Honiara and Guadalcanal <i>provinces</i>	1976	197	47	23.7	15.5	na
	1986	285	80	28.1	16.3	na
Tonga	1956	57	31	55.0		
Tongatapu <i>division</i>	1966	77	48	61.9	13.6	na
	1976	90	57	63.7	1.6	na
	1986	95	63	67.3	4.6	na
Western Samoa	1961	114	49	43.4		
Apia <i>urban area</i> ; Northwest Upolu	1966	131	58	44.2	5.9	na
	1971	147	66	44.9	2.8	na
	1976	152	69	45.3	2.2	na

APPENDIX B: SOURCES

Source citations for all countries and years *not* highlighted in Table 1 of Appendix A are in Appendix 1 of Vining (1986). *The citations which follow are for new data only.* For obvious reasons, original census sources were favored, but recourse was often made to national statistical yearbooks which report census results. What are delicately termed "Estimates" in the statistical sources are not reported. In two cases, however — Thailand and Taiwan — 1992 population registers based on the 1990 censuses were used because available census volumes did not report at the required level of spatial disaggregation.

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