

What Explains Cross-Border Migration in Latin America?

by

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1. Cross-Border Migration in Latin America: Overview

What explains cross-border migration in Latin America? What accounts for the differences in rates of emigration from Latin America compared with those from other sending regions such as Asia and Africa? Why do cross-border migration rates vary so much across Latin America? This paper reports the beginning of a project seeking answers to these questions.

Currently, Latin America has the highest emigration rate in the world (Figure 1), and the region has risen to that position of prominence in four waves. The first wave involved small numbers leading Iberian colonization, 500 years ago. The second wave was far bigger and it involved coerced black Africans arriving in slave ships, especially during the 18th century and early 19th centuries before the British navy intervened to shut that slave trade down. Slave destinations were mostly tropical, the Caribbean and Brazil leading the way. The third wave involved ‘free’ European labor arriving during the age of mass migration from about 1870 to 1940. European immigrant destinations were mostly Argentina, Brazil and Venezuela. The fourth wave began after the 1960s, and it has been very different from what preceded it in three dimensions. First, the past thirty or forty years have been ones of net emigration, not net immigration. Second, these migrations have been constrained by restrictive policy in high-wage destinations. Third, while intra-regional migration within Latin America has never been extensive, recent evidence suggests the potential for much more. For example, the rise of world oil prices along with explicit government policies favoring skilled workers pulled many Latin Americans to Venezuela, in particular from Colombia and Chile. To take another example, Argentina has also attracted many Latin American immigrants, mainly from the rest of the southern cone. During periods of good economic performance, Argentina has become a southern magnet, effectively competing with the US for immigrants in a region where distance diminishes the North American pull. What is common to both examples, of course, is good economic performance relative to the US.

Although the US has never lost its importance as the principal destination for Latin American emigrants, they have started to explore new options, such as Australia, Canada, Japan, and some

European countries (Spain, Italy and the UK). In addition, adverse economic conditions in Latin America and improved conditions in Europe contributed to some return migration on the part of descendants of previous European immigrants.¹ A similar pattern has also emerged for Asian descendants. The fourth wave continued through the 1990s and up to the present, and throughout Latin American emigrants have increasingly favored the US as their prime destination. By 2000, more than 55 percent of all immigrants in the US were Latin Americans, and about half of these were Mexicans.² This fact has led both governments to discuss seriously how to manage more orderly migrations across their common border.

As we stated above, emigration out of the region has always characterized most of the cross-border migration in Latin America. Cross-border migration *within* Latin America has always been relatively modest, as Tables 1 and 2 confirm for the 1990s. To begin with, except for local migrant-magnets like Argentina and Venezuela, low-wage Latin America has far smaller foreign-born population shares than does the high-wage labor market up north: the foreign-born share for Canada and the US combined is 8.9 percent; that for all of Latin America is only 1.4 percent; and that for Latin America less Argentina and Venezuela is a tiny 0.6 percent. Tables 1 and 2 can be used in another way to document the dominance of inter-Latin American cross-border migration relative to intra-Latin American cross-border migration. Latin Americans living outside their country of birth, but in the Americas, are distributed as 79.1 percent in Canada and the US versus 20.9 percent in their home region.

In short, Latin American cross-border migration is dominated by movements to high-wage labor markets in Canada and the US, not by movements to low-wage labor markets in the region itself. Unless Latin America starts some significant economic ‘catch up’ on the US over the next few decades, cross-border migration *within* Latin America is unlikely to rise in relative importance. Thus, the rest of this paper will focus on emigration from Latin America, and on US immigration in particular.

¹ In Europe, the definition of immigrant depends on the nationality of the parents (for instance, a person born from two French parents will be granted French citizenship, no matter where he or she was born), while in countries like the US and Canada, it depends on the country where the person was born.

² The IRCA legalization Act of 1986, which intended to regulate illegal immigration, contributed to this large increase of Mexicans in the US.

2. Who Emigrates from Latin America?

Table 3 presents the age structure of immigrants entering the US between 1997 and 2001. There we focus on Latin American (LA) immigrants and compare their age structure with that of the populations in their countries of origin. The immigrants have been divided into three age groups: 0-14, 15-64 (a range representing the active adult population, which in turn could be used as a proxy for those in the labor force), and 65 years and older. Table 3 suggests no significant difference between LA immigrants and the rest of the world, showing that 76-77% of US immigrants fall into the 15-64 range. Now compare the share of the LA immigrants adult with that of their sending country, 61%, implying that LA immigrants entering the US were much more likely to be labor-market-oriented adults than was true of their home populations, for a difference of more than 15 percentage points. This self-selection of labor-force-oriented adults has been true of international migrations since the early 19th century (Hatton and Williamson 1998: pp. 11-12), and, although Table 3 does not document it, migrations have always self-selected *young* adults (Williamson 2001). What is true of sending Latin America is also true of receiving US: the US population aged 15-64 accounted for 66% of the total population. In short, Latin American immigrants were much more likely to be adults active in the labor force than the populations they left or joined. Thus, their migration clearly served to reduce labor supply in their home country and increase it in the US. Finally, the fact that these immigrants tended to be adults (and probably young adults) suggests that they were responding primarily to labor market forces, rather than to political instability or violence at home. Immigrants fleeing political conditions at home tend to move as a family, while immigrants responding to labor market signals are those of economically-active ages.

Having generalized about Latin American immigrants in the US, note the considerable range within Latin America. Cuba, Dominican Republic, El Salvador, Colombia, Nicaragua and Peru are among the Latin American countries that sent immigrants with the highest adult shares. Perhaps more relevant, however, is the difference between the adult share of immigrants and that of the sending country. Here, the really large numbers are for Nicaragua (a huge 35.4% difference), El Salvador (23.1%), Guatemala

(20.8%), Honduras (20.5%) and Haiti (18%). These five manifested especially strong self-selection of adults. Those that had the weakest adult self-selection were Cuba and Mexico, both recording a 12.4% difference between immigrant and home adult shares. We think that this difference is likely to be explained by the combination of two events: first, whether a country's emigration experience started early or late (both Cuba and Mexico have the oldest US immigration experience stretching back to the 1950s and 1960s); and second, the "family reunification effect" which became a part of US immigration policy with the 1965 Act.

Table 4 compares the educational composition of Latin Americans living in the US with that of the population in their countries of origin. The self-selection by skill appears to be even more dramatic than by age. The table shows the percentage of adults over 25 years having secondary or tertiary educational levels.³ It is quite clear that Latin Americans living *legally* in the US have, on average, considerably higher levels of education than is true for populations at home.⁴ In particular, if we consider the percentage of people having completed at most secondary education (first and third columns), those shares for LA in the US are more than double (sometimes triple) those in the origin country. This pattern holds even if we assume that secondary figures for the origin countries refer only to the highest level attained (as opposed to completed), as in the fifth column.⁵

While Latin American immigrants to the US are more educated and more likely to be economically active than their compatriots left at home, they are less educated, on average, than the Americans they join. To the extent that education helps predict income, the inference here is that Latin American emigration creates earnings inequality at home and earnings inequality in the United States.

This evidence on educational attainments and age raises a relevant question: Does emigration from Latin America reduce or increase poverty rates and inequality there? Immigrants into the United States entered at the bottom of the urban income distribution before World War I (Hatton and Williamson 1998: Chps. 7-11) and the same seems to be true of Latin American immigrants today. But did they and

³ Puerto Rico and Cuba were excluded from Table 4 due to unavailability of information from Barro-Lee.

do they leave from the bottom of the income distribution in the sending regions? Based on this educational attainment and age data, it looks like the answer is no.⁶ Indeed, we would have been surprised by any other answer since history tells us that world migration has always been financially constrained. Whether legal or illegal, international migration is expensive, and really poor people can't afford it. Consider the case of Mexico, a country that supplied almost a third of US immigration in the 1990s. Daniel Chiquiar and Gordon Hanson (2002) have recently shown the following: starting with the facts we have seen in Table 4 -- Mexican immigrants are much less educated than the average United States citizen, but they are *more* educated than the average Mexican -- Mexican immigrants living in the US would have fallen mostly in the middle and upper portions of the Mexican wage distribution, not at the bottom; and, thus, Mexican immigration has raised income inequality at home (Chiquiar and Hanson 2002: pp. 3-4). It does not seem to have reduced poverty rates in Mexico. We need to establish whether these Mexican findings apply to the rest of Latin America.

We are aware that having lots of relatively skilled LA immigrants in the US seems to signal a *brain drain* problem if these immigrants represent an important share of the skilled labor force in their home country, if they remit at low rates, and if they never return. But if they remit at high rates, and/or return and/or create business links with their home countries, a current *brain drain* might well turn in to a future *brain gain*.

3. Explaining US Immigration by Source Country

Suppose we start with Table 5 where those born in Latin America but living in other world regions is documented for the year 2000. While significant numbers are living in Europe, the overwhelming majority (88 percent) are living in the United States. Thus, explaining emigration from Latin America is largely a matter of explaining emigration to the United States. Table 6 reports flows of

⁴ We must note however that these numbers do not take into account that more than 50% of illegal immigrants in the US come from Latin America (in particular from Mexico) and that this fact could influence some of these patterns.

legal immigrants into the United States since 1971. The Latin American total rose two and a half times between 1971-80 and 1991-2000, from 1.8 to 4.3 million. Although US immigration from all regions increased markedly over these three decades, the numbers arriving from Latin America far exceed those arriving from Europe and Africa. And while the numbers arriving from Latin America in the 1970s exceeded those for Asia by only a small margin, by the 1990s they were bigger by about 70 percent. Legal immigration is, of course, only part of the story. Estimates for the stock of illegal immigrants in the United States (Table 7) show that these are even more concentrated among Latin Americans and that the numbers doubled between 1990 and 2000.

Examining the determinants of US immigration rates from a variety of countries can shed light on what drives emigration from Latin America as compared with other source regions. It also allows us to see whether there are important differences between the factors that drive Latin American emigration and those that operate in other parts of the world. Here we draw on our earlier research on the determinants of US immigration.⁷ Our database includes 81 source countries (for which explanatory variables can also be documented), 22 of which are in Latin America, covering the 28 years from 1971 to 1998. These 81 source countries accounted for 82.5 percent of all US immigration during this period. The dependent variable is the number of (legal) immigrants accepted into the United States who were born in some sending country as a proportion of that country's population. Since this rate is bounded at zero, we use the log of the rate in our regressions. This paper uses random effects regressions, a method which exploits both the cross-section and time-series variation in the data. The results appear in Table 8.⁸

The first regression equation is estimated including all 81 source countries while the second regression is estimated only for the 22 Latin American countries in the sample. We focus first on the estimates for the complete, world 81-country sample. The explanatory variables are those suggested by

⁵ These educational self-selection patterns are less dramatic for tertiary educational achievement.

⁶ Borjas (1987) and the Roy model notwithstanding.

⁷ Clark, Hatton and Williamson (2002). That previous paper also describes in detail the sources of our data and the variables included in the data base.

⁸ For the Latin American sample (n=22) in Table 6, the Hausmann test statistic for the random effects model is 12.49, i.e. the RE model passes the test comfortably.

theories of migration, explained at greater length elsewhere (Clark, Hatton and Williamson, 2002; Hatton and Williamson, 2002).

Relative income between the sending country and the US is, of course, central to the migration decision and it is represented in Table 8 by the ratio of the source country purchasing-power-parity-adjusted GDP per capita to that of the US. The coefficient is negative as expected and highly significant. Furthermore, the coefficient implies that a ten percent rise in US income (the leader surging ahead), or a ten percent fall in source country income (the follower falling behind), leads to a 15 percent rise in immigration from that country. However, the migration decision also depends on the relative return to skills, not just income differentials, and hence the income effect must be ‘deflated’ by relative skill levels. Here we use the ratio of the number of years of education of those aged 15 and over in the source country relative to the US, and, as expected, this variable has a negative impact on immigration. *Holding income constant*, a rise in the source country’s average education level by 10 percent (equivalent to 0.55 years of schooling averaged across all sending countries) reduces the immigration rate by 7 percent. We are *not* asserting that more education diminishes emigration rates, but rather only that GDP per capita differentials are explained in part by schooling differentials, and that this factor must be accommodated in the analysis. If income differentials were instead documented by earnings differentials for individuals at common levels of schooling, then we might well get different results on the schooling variable.

Migration theory also suggests that differences across countries in the return to skills will select migrants from different parts of the skill distribution (Borjas, 1987, 1991), what has come to be called the Roy model (Roy 1951). These Roy model effects are captured here by the ratio of the Gini coefficients, a statistic describing the distribution of household income, source country relative to the US. If a sending country has more inequality than the US (an unlikely case for most sending regions *except* Latin America), then those at the top of the income distribution will have less incentive to emigrate, while those at the bottom will have more. If instead a sending country has less inequality than the US, then those at the bottom will have less incentive to immigrate, while those at the top will have more. If inequality is similar in the source and destination, then, provided that the source has a higher average income, there is

an incentive to emigrate throughout the income distribution. Thus, *unless poverty constrains poor potential immigrants from leaving the sending country*, the immigration rate to the US should follow an inverted U shaped function of relative inequality.

The results in Table 8 strongly support the Roy hypothesis, with the peak immigration rate occurring at a ratio of 1.12, very close to the point where inequality in the destination and source country are the same. We shall return to this finding below, since, in the Latin American case, it may need to be reinterpreted in terms of the qualification in italics, namely, poverty is likely to constrain the emigration of the very poor residing at the bottom of the income distribution in the sending country.

Unless return migration is very inexpensive,⁹ the discounted present value attached to any long distance move should be higher at younger ages since the returns are spread over a longer future working life. Thus, source countries with larger cohorts of young people should generate more migrants and higher emigration rates. In Table 8, the coefficient on the share of population aged 15-29 is positive as expected but it is not significant, at least for the full 81 country sample. We have no explanation for this surprising result, especially, as we shall see in a moment, given the opposite is true for Latin America alone. Most observers also stress what has come to be called the ‘friends and relatives effect.’ An established stock of previous migrants from the same source generates network effects that lower the costs and reduce the risks of migration, and, through remittances by previous migrants, may even supply the initial investment necessary to finance the move by new migrants. Table 8 documents this ‘friends and relatives effect’ by using the stock of those residing in the US but born in the source country, per thousand of the source population, lagged one period.¹⁰ Since this effect is sometimes thought to be nonlinear, the squared term is also included. The pattern of coefficients reported in Table 8 implies that the stock effect is most powerful at low levels and that it diminishes as the stock increases. At the average stock/population ratio in our data, the effect of raising the expatriate stock by 1000 is to generate an additional annual inflow

⁹ Under these conditions, migrations are less likely to be permanent and are more likely to repeat.

¹⁰ The lag is introduced under the premise that the ‘friends and relatives’ effect has to be in place before the migrant makes the move.

from the source country of about 10 immigrants per year. A very powerful influence indeed, implying very strong historical persistence.

Other country characteristics also matter and a very important one is distance from the destination. This gravity effect is measured in Table 8 by the great circle distance from Chicago in thousands of miles. The coefficient indicates that an additional thousand miles between sending country and the US reduces the immigration rate by 21 percent.¹¹ Whether the country is landlocked also has a large negative effect, although it is not quite significant at conventional levels. Even more important is whether the source country is English speaking, a factor which increases the number of immigrants from the sending country almost three fold. Political upheavals and violence, the most important source of which are civil wars, also have a significant effect, increasing the number of immigrants to the US by about 22 percent.

Clearly, US immigration policy also matters in determining immigrant source and Table 8 accommodates this by a series of dummies. Prior to 1978 there were separate quotas for the Western Hemisphere (chiefly Latin America) and the Eastern Hemisphere (the rest). The dummy for 1971-1978 reflects the merging of these two quotas into a worldwide quota in 1979. The effect from 1979 onwards seems to have been positive, especially for the Eastern Hemisphere countries, despite some decrease in the overall quota. The legalization of illegal immigrants (which is recorded as part of total immigration) under the Immigration Reform and Control Act of 1986 (effective 1988) is captured by a variable that represents the estimated stock of illegal immigrants by source country in 1980. This IRCA influence is applied only to the years 1989 to 1991 when the program was in effect.¹² This effect varies across countries with the largest impact being on Mexico where the effect was to double the immigration rate in those years. The dummy for 1992 to 1998 (for all source countries) is intended to reflect the expansion in the immigration quota that took effect following the Immigration Act of 1990 (effective 1992). This

¹¹ The gravity effect can be seen in Figure 2 where the lowest emigration (or highest immigration) rates are for the southern cone (Argentina, Brazil, Chile and Paraguay), farthest from the US. Of course, these temperate areas have always been relatively high-wage, which also helps explain their high foreign-born population shares (Table 1).

¹² The reason for using the estimated number of illegals in 1980 and not some later date is that legalization was offered to those who had been living in the country since 1982 or longer.

increased the number immigrants by 13 percent (as compared with the expansion of about 20 percent in the quota).

Finally regional dummies are also included. Here the excluded region is Western Europe so that the coefficients on the other regions reflect differences from that benchmark. For the most part, the coefficients on these regional dummies are small, suggesting that the ‘fundamentals’ can by themselves explain regional differences in US immigration rates. Notable exceptions are the very large negative intercept for Africa and the fairly large positive intercept for the Middle East. Within the Americas, there are large coefficients for the border states -- Canada and Mexico, and for the Caribbean. While these reflect the effects of contiguity they also reflect the place in the US (Chicago) from which distance is measured.¹³

4. Explaining US Immigration from Latin America

As Figures 2-4 document, cross-border migration rates vary enormously in Latin America. What accounts for that variance? Are the same fundamentals at work that we have isolated for the world at large?

The second column in Table 8 reports estimates for the 22 Latin American countries alone. These are remarkably similar to those in the first column for all 81 countries. Hence, it appears that in general Latin American emigration to the United States is driven by the same forces as for US immigration as a whole, although the forces themselves may, of course, be larger or smaller. However, there are some differences in the magnitudes of the estimated coefficients that are worth stressing. The most notable difference between Latin America and the rest is the large and now significant effect of the share of population aged 15-29. This regional difference may be explained by the fact that long distance moves from Asia and Africa may be more typically family affairs, an issue that future research needs to explore.

¹³ If distance was measured from Los Angeles rather than from Chicago, for example, the intercept for Canada would become less negative and the intercept for Mexico would become less positive, but that for the Caribbean would become even more positive.

In any case, this result implies that an increase in the proportion of the population aged 15-29 from, say, 25 to 30 percent would increase the typical Latin American country's US immigration rate by 20 percent. Furthermore, the coefficients on income and schooling differences are larger for Latin America. Thus a ten percent increase in US relative income increases immigration from the typical Latin American country by 25 percent and a ten percent increase in US relative education reduces it by 11 percent, much bigger effects than we saw for all sending regions combined.

The other coefficients are very similar to those estimated on the full set of countries with the exception of the dummy for 1992-8 which is negative. This may reflect the effect of the increased favorable weight given to skills in the 1990 Immigration Act or it may simply reflect an increasing number of Latin Americans choosing an illegal entry into the US (Table 7).

Inequality effects are also more powerful for Latin America, but the maximum immigration rate, where the Gini coefficient ratio is 1.26, still fairly close to one. This inverse U shape implies that immigration to the US is lower from those Latin American countries that are very equal or very unequal compared to the US, and higher for those in between (that is, most like the US). Note, however, that this is not quite the same as saying that Latin American immigrants into the US came from middle income groups. Consider the following possibility: Because Latin American income distributions are more unequal than the US, migration should select from the bottom of the sending country's distribution, that is, it should be mostly the very poor who move. However, there is also the 'poverty trap' to consider. First, the very poor are unlikely to have the resources necessary to invest in the long distance move to the United States. Second, and in addition, roughly constant absolute costs of migration across prospective migrants implies that these costs would be proportionately bigger the poorer the potential migrant. If either or both of these 'trap' effects dominate, then higher poverty rates in the source country should serve to *diminish* US immigration from that country. Thus, while the migration incentives may be very great for those at the bottom of the distribution, poverty makes it impossible. At the top of the income distribution, there may be no financial constraint on emigration, but there will also be far less incentive to move. Thus, it may be those in the middle of the sending country's distribution that actually emigrate. As we have

seen, this is exactly what Chiquiar and Hanson (2002) have found for Mexico in the 1990s when US immigrants came from the middle and top of the Mexican wage distribution. This issue is important, and it must be resolved with more research if we want to know whether more liberal US immigration policy will really serve to diminish poverty in Latin America.

5. Latin America and the ‘Sources’ of US Immigration

Latin American immigration into the United States far exceeds that of other regions. This dominance largely reflects higher *rates* of Latin American immigration to the US as compared with other source areas. As we have seen, there are also significant differences across countries. In order to explore some of these differences, we use our estimated equations in Table 8 to decompose the observed differences in log immigration rates into ‘sources’ emanating from differences in the fundamentals driving immigration.

We first compare Latin America immigration rates to the US with those from other sending regions using the parameter estimates from the first column of Table 8 for the full 81 countries. The first row of Table 9 shows the average value of the log immigration rate from Latin America minus the average value of the log immigration rate from Europe, Africa and Asia. This difference in average log points is multiplied by 100, and it relates to the average over the 28 years from 1971 to 1998. On average, Latin America has immigration rates to the US that are 171 log points higher than the average for Europe, 183 for Asia and 317 for Africa. Let us start the analysis with the European comparison.

A little less than a third of the log immigration rate difference between Latin America and Europe (50.7 log points) is explained by lower per capita income in Latin America as compared with Europe. Lower education levels in Latin America partly offset this effect. Inequality contributes very little because, although Latin American inequality is higher and European inequality is lower than the US, the former is closer to the US level and hence nearer to the maximum of the inverted U. Demographic structure accounts for surprisingly little of the difference as does the immigrant stock. Most important

among the other fundamentals which favor Latin America are distance, which accounts for 46 log points, and a higher incidence of English speaking. By themselves, these two fundamentals explain more than a third of the difference in European and Latin American immigration rates to the US.

Latin American immigration rates into the US are higher by a massive 317 log points than those of the 14 African countries in our sample. Per capita income and schooling now have the reverse effect since both are considerably lower in Africa than in Latin America. The most important variables accounting for the difference in US immigration rates for these two regions are distance (positive) and English speaking (negative). While most of the difference in average immigration remains unexplained by the nine fundamentals included in the analysis, one excluded fundamental that is likely to have played a powerful role is poverty. In contrast with Latin America, we know that Africans are highly mobile *within* Africa (Hatton and Williamson, 2003). Thus, it may be that poverty levels are just too high to permit mass migrations out of Africa over longer distances. The comparison with the 19 sampled Asian countries (some of which are in the Middle East) is also interesting. With the exception of the immigrant stock, all but one of the remaining fundamentals explain very little of the 183 log point difference between Latin American and Asian immigration rates. Thus, these Asian countries are, on average, very similar to those in Latin America. The higher Latin American immigration rates are largely due to one fundamental -- distance.

6. Comparisons Across Latin America

Table 10 searches for causes of the wide variance in US immigration rates across Latin America. Much like Table 9, this one looks for the sources of the variance in the log immigration rate. These sources are, once again, calculated using the second regression in Table 8 that applied to Latin American countries only. The variable being explained is the deviation in the country immigration rate from the Latin American (unweighted) average, again in log points. Thus, the Mexican immigration rate to the US is higher by 81 log points than the Latin American average. Similarly, the fundamentals are calculated as

country deviations from the Latin American average. For countries like Argentina, Barbados, Mexico, Trinidad, Uruguay and Venezuela, per capita incomes that are quite a bit higher than the Latin American average help diminish their immigration rates significantly. High relative schooling levels push up the immigration rates significantly for countries such as Argentina, Barbados, Chile, Panama, Trinidad and Uruguay. Except for Brazil and Honduras, where their income distributions are very unequal, relative inequality contributes little to differences within Latin America.

Other fundamentals matter far more, and, once again, distance is certainly one of them. The large positive effects for Mexico, the Caribbean and Central America contrast with the large negative effects for countries further south such as Argentina, Bolivia, Brazil, Chile, Paraguay, Peru and Uruguay. Relatively large accumulated stocks of immigrants living in the US also help to push up immigration rates for the small Caribbean countries. Thus, there is very strong historical persistence in Latin American emigration to the US; countries with an immigrant past tend to have an immigrant present. But even these large magnitudes are dwarfed by the massive effect of being English speaking as is true of Barbados, Jamaica, Trinidad and Guyana. It should be noted, however, that there are quite a few countries for which these fundamentals only explain a modest part of the observed differences in immigration rates. To take one small and one large country as examples, those nine fundamentals explain only 60 percent of the Barbados 230.7 point deviation from the Latin American average and only 44 percent of the Brazil -352.9 point deviation. Other country-specific factors clearly matter, and 'poverty traps' may be part of that missing explanation.

It is also worth asking how these immigration fundamentals contributed to changes in immigration rates over the last thirty years, although we are prepared for large residuals given that the R^2 in Table 8 for the time series is so much lower than for the cross section. Table 11 offers the decomposition, again based on the regression for the Latin American countries alone. Here we examine contributions to the change in the immigration rate between 1971-1973 and 1996-1998 in log points times

100.¹⁴ For Mexico the effects of changes in schooling years and inequality relative to the US, as well as increases in the young adult cohort and the immigrant stock, far exceed the actual rise in the immigration rate. Thus, although there has been a substantial rise in emigration from Mexico to the US, based on the fundamentals it should have been larger still. In other cases such as El Salvador, Nicaragua and Peru, immigration to the US rose by far more than the fundamentals predict. While all three of these countries have experienced political instability, our civil war measure (omitted in the table) cannot by itself explain much of these long-term increases in immigration to the US. Still, rising civil conflict did contribute some to rising US immigration rates for Columbia and Peru, and to falling rates for Guatemala.

While individual country experience differs from that predicted by the fundamentals, it is notable that the majority of entries in Table 11 are positive. Thus, lagging income per capita growth relative to the US was pushing up the immigration rate for 16 of the 22 countries. Furthermore, some of these lagging-income effects were powerful, like for Argentina, Jamaica, Nicaragua, Peru, Venezuela and Trinidad. Symmetrically, Chile's good performance kept potential emigrants at home. On the other hand, education levels increased relative to the US in 20 of the countries, led by Panama and Venezuela, and this added a further push to northward migration. The effects of changing relative inequality, are mixed although they are large for some countries such as Brazil, Honduras, Jamaica and Mexico. Where this effect is positive (Brazil, Honduras and Mexico), this is chiefly because increasing inequality in the US has narrowed the gap between the relatively unequal Latin American countries and the increasingly unequal United States. The demographic effects are also mainly positive, since young adult shares rose in most of Latin America. These demographic effects were fairly small in most countries, though they mattered a great deal in one very important emigrating country, Mexico (accounting for 65 percent of the rise in the log immigration rate). Finally there is that powerful contribution arising from the growth of the immigrant stock in the US, particularly for the Caribbean and Central America. These migrant stock effects are actually the result of fundamentals in the past which have contributed to present high immigration rates. High Latin American immigration rates have been sustained over the decades in large part due to these migrant stock effects.

¹⁴ Note that the table excludes the impact of changing US immigration policy.

7. An Agenda

We think that there are a number of directions that work on Latin American cross-border migration should go in the future. It seems to us that the first step should be to extend the analysis in this paper to include the role of what we have called ‘poverty traps.’ If future successful development improved the lot of the poor in Latin America, would that serve to increase or decrease the emigration rate? If OECD policy became more friendly towards immigration – especially Latin American immigration – would that serve to select poor or middle-income immigrants? Would it increase or reduce inequality in the sending regions? The second step is to understand why cross-border migration within Latin America is so small compared to migration out of the region. This appears to be much less true for Africa and Asia, and we need to know why. Is it simply due to the closeness of a huge high-wage country, the US? Finally, we need to sharpen our understanding of which forces have mattered most in raising the Latin America emigration rate since the 1960s, especially the role of policy in the receiving regions. Over the past two centuries, all emigrant countries have passed through similar life-cycles. Very poor countries have very low emigration rates: high incentive to leave is constrained by poverty. As countries start developing, these constraints are released and emigration rates soar. At some middle point when they reach a more mature industrial status, emigration rates peak, falling thereafter. Where does Latin America fit in this life-cycle? Will emigration to the US rise or fall over the next few decades? And what will be the most important underlying forces at work? Can those forces be easily influenced by policy? We need some answers, and a better understanding of the last few decades is likely to supply them.

References

- G. J. Borjas (1987), "Self-Selection and the Earnings of Immigrants," *American Economic Review* 77 (4): 531-53.
- G. J. Borjas (1991), "Immigration and Self-Selection," in J. Abowd and R. Freeman (eds.), *Immigration, Trade, and the Labor Market* (Chicago: University of Chicago Press).
- D. Chiquiar and G. H. Hanson (2002), "International Migration, Self-Selection, and the Distribution of Wages: Evidence from Mexico and the United States," *NBER Working Paper 9242*, National Bureau of Economic Research, Cambridge, Mass. (October).
- X. Clark, T. J. Hatton and J. G. Williamson (2002), "Where Do US Immigrants Come From and Why?" *NBER Working Paper 8998*, National Bureau of Economic Research, Cambridge, Mass. (June).
- T. J. Hatton and J. G. Williamson (1998), *The Age of Mass Migration* (New York: Oxford University Press).
- T. J. Hatton and J. G. Williamson (2002), "What Fundamentals Drive World Migration?" *NBER Working Paper 9159*, National Bureau of Economic Research, Cambridge, Mass. (September).
- T. J. Hatton and J. G. Williamson (2003), "Demographic and Economic Pressure on African Emigration," *Scandinavian Journal of Economics* (forthcoming).
- A. D. Roy (1951), "Some Thoughts on the Distribution of Earnings," *Oxford Economic Papers* 3 (June): 135-46.
- J. G. Williamson (2001), "Demographic Shocks and Global Factor Flows," in J. N. Little and R. K. Triest (eds.), *Seismic Shifts: The Economic Impact of Demographic Change* (Boston, Mass.: Federal Reserve Bank of Boston), pp. 247-69.

Table 1

South America: foreign population by origin and destination (1)

Latest available year (2)	Destination: South American countries									
	Argentina 1991	Bolivia 1992	Brazil 1991	Chile 1992	Colombia 1993	Ecuador 1990	Paraguay 1992	Peru 1993	Uruguay 1996	Venezuela 1990
Total population	32,615,528	6,420,792	146,825,475	13,348,401	33,109,840	9,648,189	4,152,588	22,048,356	3,163,763	18,105,265
Total foreign population (3) as % of total pop.	1,605,871 4.92%	59,807 0.93%	767,780 0.52%	114,597 0.86%	106,162 0.32%	73,179 0.76%	187,372 4.51%	52,725 0.24%	92,378 2.92%	1,024,121 5.66%
Origin of foreign population										
South America	801,813	38,485	114,471	63,043	61,194	50,657	163,152	20,848	51,891	626,530
Argentina	..	17,829	25,468	34,415	1,953	1,558	47,846	4,165	26,256	9,070
Bolivia	143,735	..	15,694	7,729	390	424	766	3,216	376	1,936
Brazil	33,543	8,586	..	4,610	1,383	903	107,452	2,523	13,521	4,223
Chile	218,217	3,909	20,437	..	1,496	4,948	2,264	4,652	1,726	20,787
Colombia	2,638	529	2,076	1,666	..	37,553	189	2,374	362	528,893
Ecuador	975	243	605	2,267	9,040	..	72	1,801	235	23,370
Paraguay	251,130	955	19,018	683	137	90	..	194	1,512	494
Peru	15,977	5,805	5,833	7,649	3,182	2,396	1,432	..	528	27,748
Uruguay	133,653	327	22,141	1,599	316	406	3,029	399	..	5,454
Venezuela	1,934	300	1,226	2,397	43,285	2,379	91	1,489	7,374	..
Others (4)	11	2	1,973	28	12	0	11	35	1	4,555
North America	12,809	10,545	13,135	8,227	16,035	9,385	5,713	6,887	2,201	14,244
Canada	777	1,435	1,112	1,151	692	752	1,373	569	388	772
Mexico	2,277	6,607	660	827	1,465	612	2,974	723	362	2,756
United States	9,755	2,503	11,363	6,249	13,878	8,021	1,366	5,595	1,451	10,716
Central America	3,241	1,508	2,413	2,389	3,846	1,745	273	1,518	614	40,781
Costa Rica	451	83	357	448	452	313	45	215	41	1,494
Cuba	1,393	85	492	579	617	302	25	410	352	10,157
Dominican R.	259	36	178	126	47	78	14	104	37	17,140
El Salvador	178	46	364	228	177	175	42	89	18	897
Guatemala	113	119	121	147	266	154	39	124	27	531
Haiti	73	5	141	37	64	22	13	15	2	1,593
Honduras	138	189	300	220	182	111	27	111	17	429
Jamaica	26	..	11	19	29	8	2	4	..	213
Nicaragua	142	54	329	168	307	161	24	135	36	2,033
Panama	367	75	981	366	1,680	409	36	280	75	1,216
Trinidad and Tobago	73	3	..	9	21	12	6	6	7	3,451
Others (5)	28	813	120	42	4	0	0	25	2	1,627
Total from the Americas	817,863	50,538	130,019	73,659	81,075	61,787	169,138	29,253	54,706	681,555

Source: Migración Internacional en América Latina: IMILA (Boletín Demográfico Nro 65, Enero 2000).

Notes: (1) Information on foreign population from Africa, Asia and Europe is not available from this source. (2) Latest available year correspond in general to the latest census year. (3) From all over the world. (4) Includes French Guiana, Guyana and Suriname. (5) Includes Barbados and Belize.

Table 2

Central and North America: foreign population by origin and destination (1)

Latest available year (2)	Destination: Central America (selected countries)					Destination: North America		
	Costa Rica 1984	El Salvador 1992	Guatemala 1994	Nicaragua 1995	Panama 1990	Canada 1996	Mexico 1990	United States 1990
Total population	2,416,809	5,118,599	8,331,874	4,357,099	2,329,329	28,528,125	81,249,645	248,709,873
Total foreign population (3) as % of total pop.	88,954 3.68%	26,279 0.51%	41,352 0.50%	26,043 0.60%	61,394 2.64%	4,967,035 17.41%	340,824 0.42%	19,767,316 7.95%
Origin of foreign population								
South America	6,377	1,232	1,761	1,027	19,847	176,430	21,365	995,236
Argentina	697	140	277	147	567	11,740	4,635	77,986
Bolivia	189	40	85	38	208	2,335	1,329	29,043
Brazil	191	181	136	110	618	9,360	1,293	82,489
Chile	1,277	209	185	115	975	23,880	2,501	50,322
Colombia	1,678	212	476	237	13,644	9,465	4,964	286,124
Ecuador	318	85	119	78	1,381	9,635	861	143,314
Paraguay	39	20	9	10	37	5,045	160	4,776
Peru	1,016	135	266	176	1,740	15,240	2,973	144,199
Uruguay	201	66	68	...	144	5,710	1,097	18,211
Venezuela	748	142	140	116	476	5,410	1,533	35,214
Others (4)	23	2	0	0	57	78,610	19	123,558
North America	6,995	6,042	11,165	3,833	4,739	272,175	197,630	5,042,844
Canada	347	279	257	147	137	..	3,011	744,830
Mexico	1,279	1,350	5,250	734	1,361	27,485	..	4,298,014
United States	5,369	4,413	5,658	2,952	3,241	244,690	194,619	..
Central America	66,837	16,739	24,500	18,473	17,535	319,965	64,629	2,926,973
Costa Rica	..	856	737	4,727	3,828	1,520	1,521	39,438
Cuba	3,485	46	192	711	3,191	3,100	2,979	736,971
Dominican R.	134	21	82	52	1,440	4,560	520	347,858
El Salvador	8,748	..	14,425	2,136	2,340	39,020	5,215	465,433
Guatemala	1,431	4,524	..	900	367	13,270	46,005	225,739
Haiti	30	7	6	20	119	49,395	364	225,393
Honduras	1,574	8,666	4,634	9,473	623	3,575	1,997	108,923
Jamaica	454	1	14	31	920	115,800	69	334,140
Nicaragua	45,918	2,139	3,621	..	4,447	8,545	2,566	168,659
Panama	4,794	308	245	351	..	2,385	2,169	85,737
Trinidad and Tobago	18	2	11	24	63	62,020	15	115,710
Others (5)	251	169	533	48	197	16,775	1,209	72,972
Total from the Americas	80,209	24,013	37,426	23,333	42,121	768,570	283,624	8,965,053

Source: Migracion Internacional en America Latina: IMILA (Boletin Demografico Nro 65, enero 2000)

Notes: (1) Information on foreign population from Africa, Asia and Europe is not available from this source. (2) Latest available year correspond to the latest census year. (3) From all over the world. (4) Includes French Guiana, Guyana and Suriname. (5) Includes Barbados and Belize.

Table 3

Age structure of LA immigrants in the US and at their countries of origin

A.- Latin American immigrants in the US, 1997-2001

Country of origin	Total Immigrants	0-14 years (%)	15-64 years (%)	65+ years (%)
Total Immigrants	4,019,198	18.5	76.6	4.6
Non-LA immigrants	2,438,571	18.3	76.8	4.5
Latin America imm.	1,580,977	18.8	76.2	4.8
Mexico	806,358	20.6	74.2	4.9
Cuba	113,628	14.3	81.5	4.1
Dom. Republic	104,153	19.8	77.4	2.6
El Salvador	101,015	10.3	82.2	7.2
Haiti	94,522	19.6	73.2	7.0
Jamaica	79,112	22.8	74.2	2.6
Colombia	66,034	16.4	78.7	4.7
Nicaragua	57,314	8.3	89.3	2.1
Peru	50,189	14.6	78.3	6.8
Guatemala	46,389	23.2	73.5	3.1
Ecuador	40,927	20.2	74.2	5.3
Honduras	14,079	21.0	75.0	3.9
Guyana	7,257	20.3	76.2	3.5

B.- Population at their countries of origin, 1997-2001

Country of origin	Population (average per year)	0-14 years (%)	15-64 years (%)	65+ years (%)
Latin America	235,074,770	34.5	61.0	4.5
Mexico	96,614,822	34.3	61.8	3.9
Cuba	11,151,800	21.6	69.1	9.3
Dom. Republic	8,237,522	34.0	61.7	4.3
El Salvador	6,155,148	35.9	59.1	4.9
Haiti	7,806,600	41.1	55.2	3.7
Jamaica	2,554,852	31.6	61.0	7.4
Colombia	41,543,894	33.1	62.2	4.8
Nicaragua	4,941,756	43.0	53.9	3.1
Peru	25,550,652	33.8	61.3	4.9
Guatemala	11,094,540	43.9	52.7	3.4
Ecuador	12,409,800	34.3	61.0	4.7
Honduras	6,256,368	42.2	54.5	3.4
Guyana	757,016	31.3	64.0	4.7

Source: constructed with information from Yearbooks of INS (1997-2002) and WDI (2003, the World Bank)

Table 4**Education of LA living in the US compared with origin countries' population, 2000**

Countries of origin	LA living in the US		Population in Countries of Origin			
	Highest level completed		Highest level completed		Highest level attained	
	Secondary	Tertiary	Secondary	Tertiary	Secondary	Tertiary
Latin America, Total	46.4	10.6	16.1	7.7	31.7	11.8
Mexico	44.0	6.9	19.9	6.6	40.3	11.3
Central & South America	47.0	17.4	15.4	8.1	29.8	12.2

Source: Constructed from *Statistical Abstract of the US* (2002), and Barro-Lee data on education (2000).

Table 5

Stocks of Latin American emigrants, outside LA
(Selected Countries, circa 2000)

Selected Recipient Country	Total
<u>Europe</u>	
Germany	87,614
Austria	2,308
Belgium	4,962
Denmark	865
Spain	283,778
France	41,714
Netherlands	157,745
Italy	116,084
Norway	14,937
Portugal	25,531
United Kingdom	500,000
Sweden	19,930
Total Europe	1,255,468
<u>Other Regions</u>	
Australia	74,649
Canada	553,220
Israel	78,259
Japan	284,691
United States (a)	16,062,000
Total selected countries	18,308,287

Source: ECLAC, *Globalización y Desarrollo*, chapter 8. &
(a) INS, calculated from 2000 census

Table 6**Latin American immigrants to the USA, by country of birth**
(thousands)

Country of Origin	1971-80	1981-90	1991-00	1997	1998	1999	2000
Latin America	1,813.8	3,460.6	4,319.2	348.9	288.2	304.1	384.6
Mexico	637.2	1,653.3	2,251.4	146.9	131.6	147.6	173.9
Caribbean	759.8	892.7	996.1	105.3	75.5	71.7	88.2
Cuba	276.8	159.2	180.8	33.6	17.4	14.1	20.8
Dominican Republic	148.0	251.8	340.9	27.1	20.4	17.9	17.5
Haiti	58.7	140.2	181.8	15.1	13.4	16.5	22.4
Jamaica	142.0	213.8	173.5	17.8	15.1	14.7	16.0
Trinidad & Tobago	61.8	39.5	63.3	6.4	4.9	4.3	6.7
Central America	132.4	458.7	531.8	43.8	35.7	43.2	66.4
Costa Rica	12.1	15.5	na	na	na	na	na
El Salvador	34.4	214.6	217.4	18.0	14.6	14.6	22.6
Guatemala	25.6	87.9	103.1	7.8	7.8	7.3	10.0
Honduras	17.2	49.5	66.7	7.6	6.5	4.8	5.9
Nicaragua	13.0	44.1	97.7	6.3	3.5	13.4	24.0
Panama	22.7	29.0	23.9	2.0	1.6	1.6	1.8
South America	284.4	455.9	539.9	52.9	45.4	41.6	56.1
Argentina	25.1	25.7	24.3	2.0	1.5	1.4	2.3
Brazil	13.7	23.7	52.3	4.6	4.4	3.9	7.0
Chile	17.6	23.4	16.9	1.4	1.2	1.1	1.7
Colombia	77.6	124.4	131.0	13.0	11.8	10.0	14.5
Ecuador	50.2	56.0	76.4	7.8	6.9	8.9	7.7
Guyana	47.5	95.4	73.8	na	na	3.3	5.7
Peru	29.1	64.4	105.7	10.9	10.2	8.4	9.6
Venezuela	7.1	17.9	29.9	3.3	3.1	2.5	4.7
Europe	801.3	705.6	1,311.4	119.9	90.8	92.7	132.5
Asia	1,633.8	2,817.4	2,892.2	265.8	219.7	199.4	265.4
Canada	114.8	119.2	137.6	11.6	10.2	8.9	16.2
Africa	91.5	192.3	383.0	47.8	40.7	36.7	44.7
Oceania	na	na	48.0	na	na	3.7	5.1
All Countries	4,493.3	7,338.1	9,095.4	798.4	660.5	646.6	849.8

Source: US Census Bureau, Statistical Abstract of the United States, various years.

Table 7**Estimates of undocumented LA immigrants to the USA,
1990-2000**

Country of Origin	1990	2000	Increase (percent)
Latin America (selected countries)	2,746	5,833	212
Mexico	2,040	4,808	236
El Salvador	298	189	63
Guatemala	118	144	122
Colombia	51	141	276
Honduras	42	138	329
Ecuador	37	108	292
Dominican Republic	46	91	198
Brazil	20	77	385
Haiti	67	76	113
Peru	27	61	226
All other countries	754	1167	155
China	70	115	164
Philippines	70.0	85	121
India	28	70	250
Korea	24	55	229
Canada	25	47	188
All Countries	3,500	7,000	200

Source: Immigration and Naturalization Service (2000)

Previous estimates for 1996, indicated 50,000 illegal immigrants from Jamaica, 50,000 from Trinidad & Tobago and 70,000 from Nicaragua.

Table 8**Immigration to the United States, 1971-1998
(Random effects panel estimates)**

	All source regions (81 countries)		Latin America (22 countries)	
	Coeff.	z-stat.	Coeff	z-stat.
Constant	-8.72	15.6	-10.64	10.1
GDP per capita ratio (source/US)	-1.49	7.6	-2.55	5.7
Schooling years ratio (source/US)	0.69	3.0	1.11	3.1
Gini coeff. ratio (source/US)	2.54	5.8	5.83	5.3
Gini coeff. ratio (source/US) squared	-1.16	6.3	-2.31	5.6
Share aged 15-29 in source pop.	0.52	0.7	4.09	2.8
Imm. Stock/source pop. (t-1)	7.18	3.4	8.43	4.2
Imm. Stock/source pop. (t-1) squared	-39.70	4.1	-34.69	4.1
Distance	-0.21	3.5	-0.24	2.5
Landlocked	-0.46	1.7	-0.52	1.1
English speaking	1.63	6.4	2.01	4.1
Civil war	0.22	4.7	0.11	1.7
Eastern hemisphere, 1971-8	-0.32	9.3		
Western hemisphere, 1971-8	-0.19	3.6	-0.19	3.8
IRCA	0.07	7.5	0.06	7.2
Dummy 1992-8	0.13	4.1	-0.10	1.8
Eastern Europe	-0.12	0.3		
Africa	-2.00	5.0		
Oceania	0.51	0.8		
Middle East	1.31	3.0		
Asia	-0.12	0.3		
Canada	-1.27	1.4		
Mexico	1.15	1.4		
Central America	0.72	1.6	-0.51	0.8
South America	0.06	0.2	-0.98	1.3
Caribbean	1.33	2.6	-0.14	0.2
R ² Time series	0.20		0.44	
Between countries	0.76		0.88	
Overall	0.71		0.84	
No of observations	2268		616	

Table 9

Explaining deviations of the Average Latin American Immigration Rate to the US from that of Other Regions to the US, 1971-1998
(contribution to the deviation in the log immigration rate $\times 100$)

	Deviation of Latin America from:		
	Europe	Africa	Asia
Log immigration rate	171.4	316.7	183.0
GDP per capita ratio	50.7	-20.2	0.5
Schooling years ratio	-17.8	13.8	-0.5
Inequality ratio	10.7	3.6	-1.1
Share aged 15-29	2.5	0.5	0.1
Immigrant stock/population	3.1	9.7	8.9
Distance	46.0	120.7	147.1
Landlocked	4.2	5.7	-1.7
English speaking	14.8	-75.1	-4.8
Civil war	2.3	0.6	-1.1

Table 10

Explaining Deviations from the Average Latin American Immigration Rate to the United States, 1971-1998
(contribution to the deviation in the log immigration rate × 100)

	Mex- ico	Bar- bados	Dom. Rep	Jam- aica	Trinida d	Costa Rica	ElSal- vador	Guat- emala	Hond- uras	Nicar- agua	Pan- ama	Arg- entina	Bol- ivia	Brazil	Chile	Col- ombia	Equ- ador	Guy- ana	Para- guay	Peru	Uru- guay	Ven- ezuela
Log immig rate	80.8	230.7	179.3	253.5	201.8	-16.9	114.4	8.4	34.1	37.6	64.3	-201.2	-126.6	-352.9	-137.3	-60.8	4.8	270.4	-214.1	-79.3	-386.7	-802.6
GDP per capita	-30.0	-42.0	22.0	16.4	-80.6	2.3	25.4	20.4	34.4	27.3	6.1	-35.5	27.7	-4.6	-8.0	9.3	12.5	30.2	24.5	13.5	-17.1	-54.0
Schooling	1.5	30.0	-11.6	-8.9	15.2	0.9	-15.4	-25.4	-16.7	-17.4	14.9	20.9	-3.2	-15.9	12.9	-7.3	3.0	1.7	0.5	7.1	14.3	-1.3
Inequality	0.1	5.0	6.4	-6.1	-3.8	4.3	5.3	2.4	-10.6	4.4	3.2	-1.2	-4.2	-10.6	5.3	1.3	0.0	-5.2	1.5	-2.1	-0.5	5.1
Age 15-29	2.3	2.5	4.2	-0.9	4.0	5.6	-0.4	-4.0	-1.6	-1.1	1.6	-14.6	-3.4	3.5	1.0	6.5	0.8	9.7	0.6	1.0	-19.5	2.4
Immig stock	11.6	27.0	11.1	29.2	14.5	-4.9	11.6	-2.9	-2.8	3.3	6.7	-13.2	-12.4	-14.8	-12.5	-10.3	-5.7	14.7	-14.3	-11.4	-11.1	-13.5
Distance	55.9	20.7	46.7	53.1	17.8	35.7	46.0	48.1	47.1	41.9	31.8	-95.1	-41.8	-80.6	-84.1	16.7	6.8	4.2	-72.7	-25.0	-97.7	24.5
Landlocked	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	-47.3	4.7	4.7	4.7	4.7	4.7	-47.3	4.7	4.7	4.7
English	-36.5	164.5	-36.5	164.5	164.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5	164.5	-36.5	-36.5	-36.5	-36.5
Civil war	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	4.4	2.4	-1.1	3.2	-1.1	-1.1	-1.1	-1.1	-1.1	4.8	-1.1	-1.1	-1.1	4.8	-1.1	-1.1

Table 11

**Explaining Trends in Latin American Immigration Rates,
1971-1973 to 1996-1998
(contribution to the change in the log immigration rate × 100)**

	Log immig rate	GDP per capita	Schooling years	Inequality	Share aged 15-29	Immigrant Stock	
Mexico	29.7	1.8	21.9	32.6	19.4	30.7	
Barbados	-70.4	-1.3	-33.3	-0.3	-0.4	12.9	
Dom. Rep.	26.1	-0.4	4.3	-6.4	8.5	31.5	
Jamaica	6.8	24.2	8.1	-46.2	27.9	13.9	
Trinidad	-37.2	40.2	7.5	-23.4	0.7	34.3	
Costa Rica	-33.5	9.8	3.8	-9.0	-0.7	5.2	
El Salvador	169.8	8.0	12.9	9.2	18.3	46.6	
Guatemala	85.0	9.4	10.6	8.1	6.3	23.6	
Honduras	96.9	6.0	15.4	68.1	12.0	16.6	
Nicaragua	139.7	27.5	5.8	5.6	9.9	25.9	
Panama	-26.2	7.5	21.9	21.1	7.9	17.9	
Argentina	-37.5	25.5	7.7	-24.0	2.0	0.8	
Bolivia	70.6	8.3	-4.1	-4.9	6.1	2.7	
Brazil	91.2	-0.8	6.1	44.7	6.4	0.4	
Chile	-2.8	-10.5	3.2	1.1	-6.0	2.3	
Colombia	32.3	-3.6	6.5	16.5	4.1	5.3	
Equador	-10.0	1.2	12.7	-13.7	13.1	9.6	
Guyana	85.1	13.3	2.8	-28.8	22.4	-12.7	
Paraguay	46.2	-0.3	7.7	1.5	1.7	1.1	
Peru	148.0	19.2	16.0	15.5	12.8	6.0	
Uruguay	-47.7	1.4	0.9	-23.0	4.4	4.4	
Venezuela	111.2	55.3	22.9	-7.7	3.7	1.6	

Figure 1

Net Migration Rate (per 1000 pop.), per Region (2000)

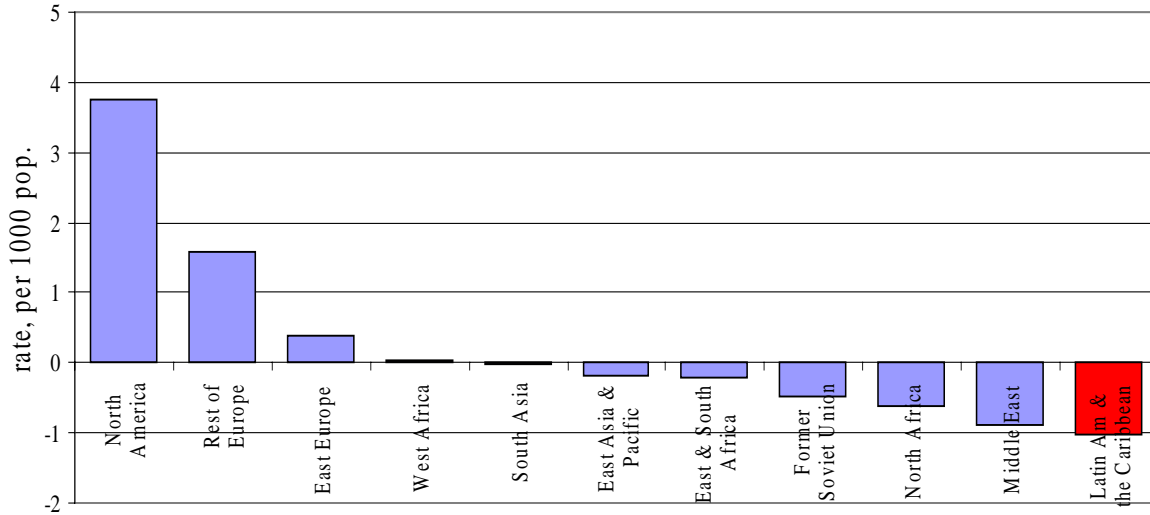
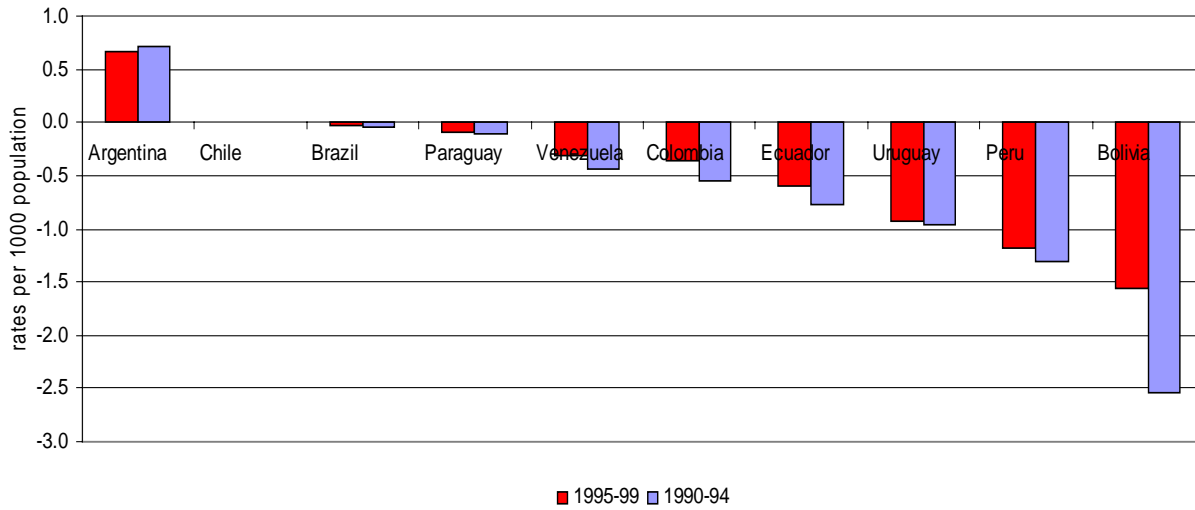
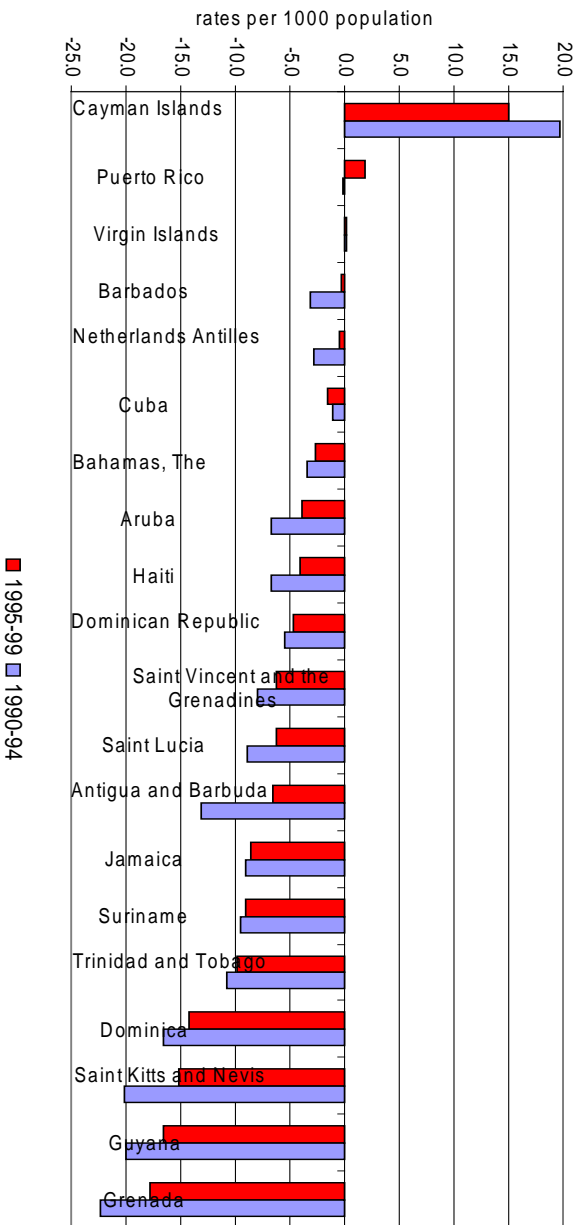


Figure 2

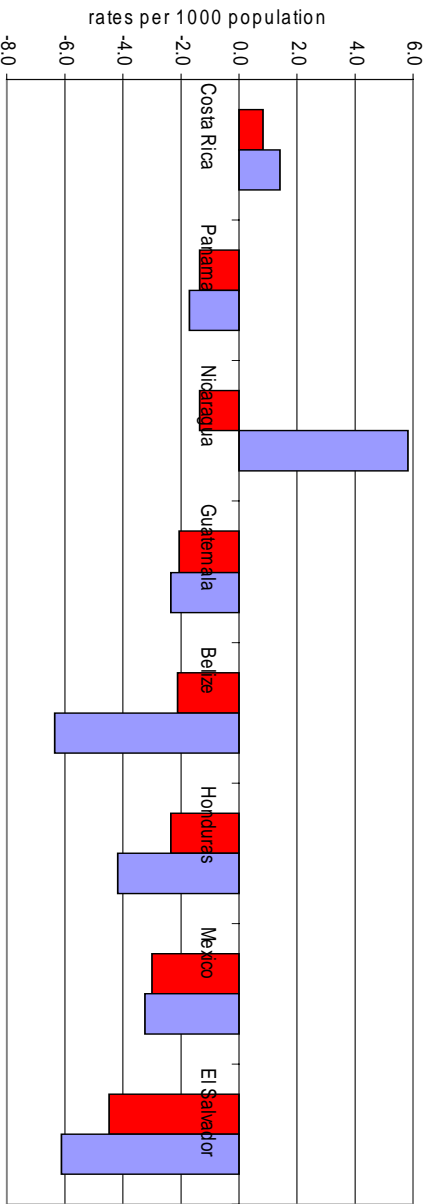
Net Migration Rates - South American Countries - 1990-1999





Net Migration rates - Various Islands, Guyana & Suriname - 1990-1999

Figure 4



Net Migration rates - Central America & Mexico - 1990-1999

Figure 3