The Challenge of Population and Migration

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Copenhagen Opposition Paper on Population and Migration

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In Philip Martin’s Copenhagen Challenge Paper on Population and Migration the opportunity for expanding world output substantially and reducing disparities in income per-capita across countries by expanding the movement of labor from low-to high-productivity areas is presented and discussed. Estimates are presented that moving 100 million persons would raise world output by 8 percent. According to Martin there are two related main challenges: The first is to minimize the opposition of populations in potential receiving countries to expanded immigration. The second is to use the gains from expanded cross-border migration to compensate those whose welfare is reduced.

Martin presents a three-component plan to meet the dual challenges. The first component is to expand the flow of “permanent” immigrants, but with improved selection criteria to maximize the “success” of the immigrants. Martin suggests that this would entail placing much greater weight on the schooling of immigrants and host-country language skill. Thus, he envisions an expansion in the permanent cross-border movements of skilled workers. Presumably, “successful” migrants pose less of a cost on host-country populations, as they create smaller demands on transfer systems. A key issue here is how to pick migration “winners”.

The second component of the proposal is to expand the flow of unskilled immigrant workers. These workers, however, would be “temporary”, be permitted to stay in the host countries for short periods of time and then repatriated. The idea is that temporary migrants are less threatening to host-country populations, because they cannot have permanent influences on culture and institutions, a view also expressed by Winters et al. (2003) in their analysis of the economic impact of temporary expanded migration. The key challenge here is not only how to select who joins the pool of temporary workers, but how to enforce their exit, given the alleged
enormous private returns from permanent migration.

The third proposal is to redistribute the gains from migration. Most of the gains from the movement of peoples accrues to those who move. Martin discusses a number of mechanisms to redistribute the gains, including special taxes on migrant earnings, and proposes some uses for the funds, including for investment in mechanization in host countries.

Martin’s paper presents a useful overview of the migration experiences of many countries, of analyses that have been carried out on immigration, and of the many alternative mechanisms for selecting immigrants and enforcing repatriation. Unfortunately, the immigration literature and the paper are deficient in providing a suitable framework or credible empirical evidence for evaluating the costs and benefits of expanded global migration and the alternative mechanisms for selecting immigrants. In this “opposition” paper I will discuss first the calculation of the global benefits of migration, showing that Martin’s analysis (and that of others) is a long way from that which is appropriate. I will present some new findings from new data to shed light on what the benefits might be, showing that Martin’s calculations lack any theoretical foundation and substantially overstate the benefits from expanded migration, which are still large. Second, I will discuss and provide more reliable evidence on aspects of the distribution of the global gains from increased immigration, discussing briefly some of Martin’s ideas about the use of expropriated gains from migration. Third, I will briefly discuss the issue of selection mechanisms arguing that Martin’s emphasis on schooling as a criterion for immigrant success is simplistic. Finally, I will discuss the permanent/temporary dichotomy, arguing, and presenting evidence, that Martin and most other researchers have an exaggerated perception that migrants selected in permanent migration systems are permanent and migrants selected as part of
“guest” worker programs are temporary and undervalue the long-term costs of temporary worker programs and the ease by which costs of enforcing temporariness can be enforced. I will also argue against the proposition that creating a large permanent population of temporary workers makes immigration more palatable to the host-country population. In my conclusion I raise issues about the root causes of global disparities in factor prices.

A. Calculating the Global Benefits from Increased Migration

The existence of cross-country wage differences among workers with the same skills suggests that there are global gains from moving labor to high-wage areas from low-wage areas. The gain is the difference between the contribution of the added worker in the host country less the output lost in the sending country. To calculate the gain from any proposal to expand cross-border movement of labor, we need to know both who will cross borders - which skill group - and the host/sending country wage differences for these specific workers. To simplify, let us defer the issue of selection and assume that migration will take place through a random selection mechanism, so that migrants are the average (-skill) workers in sending countries. The global migration gain is thus the host/sending country wage difference for the average worker in sending countries.

Martin presents no data on gaps in skill-specific wages across countries. Instead he uses the difference between rich and poor countries total output per person to gage the gains from immigration. Output per-capita is probably correlated with the wage of the average worker, but is a poor measure. Output per-capita can differ across countries in which prices of skills are the same for two main reasons: differences in the share of the population in the labor force and differences in the skill composition of workers. The use of per-capita GDP to measure migration
gains is a step backward from the earlier analysis by Hamilton and Whalley (1984) and the recent study by Walmsley and Winters (2003) on the global benefits of migration. Neither of these studies, however, use the appropriate cross-country skill price differences.

Hamilton and Whalley use the wage bill per laborer to measure cross-country wage gaps. Information on average wages are obviously not sufficient to identify skill price differences - wages can differ either because skill prices differ or skill compositions differ. Hamilton and Whalley do not have data on skill differences across countries, so they examine the sensitivity of the estimates to assumptions about the skill gap between host and sending country labor forces. Walmsley and Winters use cross-country data on wages to measure the skill of migrants from different sending countries. They assume that immigrants from high wage countries are more productive than immigrants from low-wage countries. Again, however, if skill prices differ across countries, which is the whole basis for the proposition that increased migration enhances global welfare, then the sending-country wage composition of emigrants cannot be used to measure their skill composition. Moreover, as I show below empirically, it is not even clear in theory that countries that have higher skill levels will have emigrants with higher skills.

Assumption about skill differences across counties matter for gains conclusions. Hamilton and Whalley show that the estimates of the global gains from migration using per-capita GDP can be reduced by an order of magnitude when differences in labor force shares and worker skills are taken into account. However, the effects of differences in cross-country skills are based on guesses. In any case, Martin’s analysis ignores both labor-force share and skill composition.

How badly do differences in per-capita GDP or in average wage rates across countries measure the gains from increased global migration? I use the methodology in Jasso, Smith and
Rosenzweig (2002) to compute the actual cross-country wage gains of U.S. immigrants and compare these with the cross-country gap between the aggregate country-level averages used by Martin and other researchers. The analysis is based on data from the New Immigrant Survey Pilot (NIS-P), a panel survey based on a random sample of new “green card” recipients (permanent resident aliens) who obtained their visas in August through November of 1996.\(^1\) The analysis concentrates on two groups of immigrants - those given visas based on skills and getting a job offer and those who married either a U.S. citizen or permanent resident alien (green card holder). These groups, in contrast to those who obtain visas because they have blood relatives in the United States, conform more closely to migrants in models in which migrants optimize based on wage differences. The survey obtained information on pre-immigration earnings in the last job in the home country and post-immigration earnings in the United States in each of the four rounds of the survey, which covered a period of about 2 years. I use information on earnings in the final round of the survey, when the immigrants had been in the United States for approximately three years on average (1.6 years prior to becoming a permanent resident alien).

Table 1 presents alternative measures of the home-country wages of the immigrants, classified into three skill groups - less than a high-school education (12 years), high-school graduate, and college graduate (16+ years). The first column uses Philip Martin’s wage measure - per-capita GDP - and is the average over the sending countries for the specific skill group of immigrants; the second column, computed by applying a wage share of 0.67 to per-worker GDP, is the wage bill per worker (the average wage).\(^2\) The third column reports the actual annualized

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\(^1\) For details, see Jasso et al., 2000.

\(^2\) These aggregate country statistics come from Heston et al. (2002) and refer to 1996.
wage of the immigrants in their home-country job based on the NIS-P. The figures show that sending-country per-capita GDP substantially understates the actual sending-country wage for the immigrants in all three education groups, by 54% even for the lowest skill group. The per-worker wage bill is about right for that group, but underestimates the home-country wage for higher-skill immigrants increasingly as immigrant skill increases. This latter result illustrates the problem with using even the wage bill estimate of the skill price - higher-education immigrants have education levels that are greater than the average worker in their home counties, and the country’s average wage, as measured by the wage bill per worker (or per-capita GDP), does not reflects a country’s skill composition. Second, the variation in either average per-capita GDP or the aggregate wage of the home-countries of the immigrants, used in Walmsley and Winters (2003) to proxy productivity differences among immigrants, understates substantially the skill differences among immigrants. This is because many high-skill immigrants come from low-average skill counties (e.g., India, China). The final column of Table 1 reports the U.S. earnings of the same immigrants, from which the actual wage gain of the immigrants can be calculated.

Figure 1 presents alternative measures of the wage gains from migration based on the two sending-country aggregate measures in Table 1 and U.S. GDP per-capita ($57,259) and the actual cross-country wage gains of the immigrants, again by education level. Note that the cross-country wage gain for an immigrant holds constant his/her skill and thus reflects only the cross-country difference in skill price or marginal skill productivity, and any non-transferability of skill. The first bar in each education category is the measured gain based on the difference between the average per-capita GDP of the sending countries of the immigrants reported in (and are in 1996 PPP dollars).
Table 1 and per-capita GDP in the United States in 1996. The second bar is the difference in the per-worker wage bill in the United States and the average sending-country of the immigrants, and the third bar is the actual cross-country wage gain at about three years of U.S. experience of the immigrants. The figures show that measures of wage gaps based on average country-specific wages overestimate substantially the gains from migration. The per-capita income-based measure of the gain used by Martin is almost double the actual gain for the lower skill migrants whose immigration Martin wishes to expand. Moreover, the average country wage gap of the countries of origin of the immigrants does not pick up the fact, evident in Figure 1, that absolute wage gains are higher for higher-skill immigrants. Martin’s measure of gain, as well as those used by other researchers based on average cross-country wage gaps, therefore substantially overestimates the true gain from immigration.

The gains calculated based on aggregate wage measures also evidently cannot identify an important fact - that the increased migration of higher-skill immigrants has a larger gross beneficial effect per migrant on world output than does the migration of the low-skilled. The absolute gain for the college graduates is more than double that for those migrants who had not completed 12 years of schooling ($17,230 versus $7,563). There is thus some evidence to back up Martin’s call for increased high-skill immigration, but the case for an even greater expansion of low-skill immigration based on global gains is not supported.

The exaggerated gains based on average wage or per-capita differences across countries is due in part to the fact that the average skill levels of the workers in sending countries are below those of the receiving countries. The average number of years of schooling in the origin countries of the U.S. immigrants is about seven years; this compares with an average of about 14
years of schooling in the United States. Despite the higher level of schooling, the U.S. labor force is also likely more experienced than those in sending countries, where workers are substantially younger. It is thus not surprising that the average wage gap between the United States and the average sending country overestimates the gap in skill-specific prices and thus the potential immigration gain.

Although cross-country wage differences overstate by 100% or more the gains from a marginal increase in international labor mobility, the actual gains attained by the immigrants are large - $14,000 per-year on average in the first few years after immigration, and even $8,000 per year for the low-skill immigrants, the latter one-year gain figure comparable to the average per-capita incomes of the sending countries! Increasing immigration of the low-skill by one million workers thus adds eight billion dollars to the world economy; increasing the same number of high-skill immigrants (college graduates) adds over 17 billion dollars. Are the actual wage gains of U.S. immigrants a good measure of the global gains from increased migration? The wage gains obviously well-characterize the initial gains for those persons who immigrated to the United States in 1996, although information is needed on both the lifetime trajectories of their U.S. earnings and the foregone earnings in the home country to compute the total gains. The question is whether the observed gains of immigrants predict the marginal gains for expanded future immigration. This will clearly depend on selection mechanisms that are used, as indeed the figures indicate that wage gains vary by schooling. The observed gains probably overstate the gain for a randomly-selected resident of a home country, as we would expect those with the highest expected gains to migrate first.

B. The Global Distribution of Migration Gains
Martin’s paper does not go into the international distribution of the gains from increased labor mobility in a systematic way either analytically or with non-anecdotal empirical evidence. There are three main avenues of redistribution that do not entail direct governmental interventions. First there are general-equilibrium effects. Large flows of persons between countries affect the country-specific prices of labor or skills. Assessing these effects requires a general-equilibrium model, and that is the contribution of the exercises by Hamilton and Whalley (1984) and Walmsley and Winters (2003), which use computable general-equilibrium models to assess, by skill group and country of residence, who gains and who loses from increased international labor mobility. One important caveat of those models is that capital is assumed to be completely immobile internationally, an assumption implicitly used by Martin in his more casual analyses of general-equilibrium effects. Of course, increased capital mobility is an alternative means of achieving the same goals as enhanced international labor mobility. A complete assessment of the cost and benefits of encouraging increased immigration would compare any immigration scheme to those enhancing international flows of capital. In any case, the assumption of complete international capital immobility seems too strong, and more attention to capital mobility is needed to achieve a more accurate assessment of the level and distribution of the benefits and costs of international labor mobility.3

A second way in which the gains to immigrants are redistributed back to sending countries without international coordination or cooperation is via remittances. The role of remittances in the distribution of immigration gains is emphasized by Martin and incorporated

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3 Foster and Rosenzweig (2003) show that a large component of the wage gains in rural areas of India in the past 30 years was due to flows of capital into rural areas rather than through out-migration.
into the Walmsley and Winters general-equilibrium model. Data on remittances are incomplete at best, so again most researchers make assumption about the magnitudes of voluntary transfers. For example, Walmsley and Winters assume that remittances back to the home countries are 20 percent of the earned wages of the immigrants. Is this a realistic assumption? The NIS-P data permit a look at remittance behavior. Respondents were asked how much financial assistance they provided to relatives, friends and others not living in the United States in the year preceding the final round of the survey. Fifty-nine percent of the male migrants with earnings sent remittances abroad. Table 2 provides the average U.S. earnings and remittances by schooling group among male migrants in the sample in the last round of the survey. The data indicate that on average remittances were only 4 percent of the U.S. earnings of immigrants, a figure 1/5 that assumed in Walmsley and Winters.

Reasonably reliable data on remittances thus suggest that researchers may be considerably overestimating the promise of remittances as a re-distributional mechanism for immigration gains, but from the perspective of the sending countries the contribution of remittances is at least not trivial. One way to gage this is to look at remittances as a proportion of origin-country earnings. Based on the origin-country earnings of the immigrants as a proxy for incomes of the workers in the original country of origin, displayed in column four, remittances add from seven to over 11 percent to incomes in the countries sending the immigrants. Temporary migrants are likely to send a much greater proportion of their earnings home in the few years they are immigrants, but then their gains are also smaller as their skills and incomes are lower and they do not accumulate host country labor market experience. The data do show that higher skill immigrants send a greater amount of remittances, although remittances make up
a smaller proportion of income among the highest-skill groups.

A third market mechanism by which immigration gains accrue to sending countries that is highlighted by Martin is through the (voluntary) return migration of skilled immigrants. Martin provides no information on what return rates are or who returns, although there are anecdotes about returning Taiwan and Indian entrepreneurs. The benefits to sending countries from return migration derive from the skills acquired by the migrants in the host country. Thus, this redistributional mechanism is associated with Martin’s “permanent” migration flow - the immigrants need to be in the host country more than the few years envisioned by Martin for temporary workers. The enforced rapid turnover of unskilled migrants does not have any significant benefit for the sending countries other than perhaps pleasing the families of the return migrants who are barred from emigrating under Martin’s scheme. Thus, only if permanent migrants are not “too” permanent does this re-distributional mechanism have any salience (and if workers are too temporary then it has no effect).

The evidence suggests that ‘permanent’ migrants are by no means completely permanent. Jasso and Rosenzweig (1982) matched U.S. Immigration and Naturalization Service immigration and naturalization records along with annual address reports of permanent resident aliens to compute cumulative emigration rates at 10 years after immigration for permanent resident aliens who received there green cards in 1971. The data indicated emigration rates on the order of 30%, with rates considerably higher than that for many countries. That data for that analysis did not permit an assessment of return rates by skill. However, preliminary results from the baseline round of the New Immigrant Survey, a national survey of a stratified random sample of all (permanent) U.S. legal immigrants admitted between April 2003 and January 2004, indicate that
a substantial fraction of more-skilled immigrants do not intend to stay in the United States permanently. Over fifteen percent of the new immigrants aged 23 through 59 with college degrees or higher said that they did not intend to remain in the United States, compared with just under ten percent for those with less education. More impressively, of the new male immigrants admitted with an employment visa, and thus screened for skills, over 21 percent indicated they expected not to stay in the United States.4

The uncoerced return of skilled immigrants thus represents a real gain to sending countries, at least among those sending countries that provide an environment in which skills and entrepreneurship are rewarded. The irony, of course, is that if immigrant sending countries were characterized by high returns to skill, there might be few high-skill emigrants. Most of the stories about the recent successes of return skill migration pertain to countries that had a change in policies - Taiwan, China, India.

Martin appears to favor special taxation of the gains to high-skill migrants. He has a number of ideas for how to spend the proceeds. One of these is to remit the revenues to sending countries to compensate those losing from the migration. This seems at odds with the international trade literature, in which taxation based on the skill-content of goods is eschewed as well as direct transfers to those taking losses, in favor of taxation uniformity and help in job training. A tax on high-skill immigration is like a tax on high-skill content goods, and should be looked at in that way - what exactly is special about immigration in terms of dealing with compensation issues, except that, as we have seen, it is possible to identify the individuals who

4 These results, and those reported below, from the NIS are preliminary and are taken from early rounds of the survey, which is still in the field at the time the paper is being written.
reap a large part of the initial gains from immigration? In any case, if one views pressures for immigration as arising in part from incompetent economic management and dysfunctional institutions in sending countries, providing such governments with additional monies does not appear to be an effective way of spurring development. Indeed, it is a subsidy to mismanagement. This issue also pertains to the value of private remittances. Remittance income is no different from any other income from the perspective of families making savings and investment decisions. Thus, whether remittances help sending countries develop depends on the economic environment in those countries.

Another idea Martin advocates for re-allocating the private gains from immigration is to subsidize research and development in mechanization in host countries. This seems peculiar - optimal subsidies are non-zero when there are market distortions. In this case the distortion is an artificial barrier to the immigration of labor. This raises the price of labor, which induces investment in labor-saving technologies. Martin provides an example of mechanized tomato harvesting (and a reshaping of the tomato) as a response to the difficulty of tomato growers in obtaining human tomato harvesters. Lowering the barriers to immigration reduces the distortion. The economic case for subsidizing investment in mechanization is not obvious, except as a distortion-creating mechanism for compensating those in the business of developing labor substitutes when immigration barriers are eased.

C. Choosing Among Immigrants

Martin favors a selection system that places the most weight on schooling in selecting

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5 The tasteless, rock-hard American tomato is evidently the direct result of immigration barriers.
permanent migrants. He also distinguishes between demand and supply-based immigration selection systems, where the former are defined in terms of demand by firms and are said to be prevalent in OECD countries. He neglects the fact that most legal immigration to the United States is sponsored by a U.S. resident, but few U.S. immigrants are screened for skills or obtain a visa because they have a job. Indeed, the largest category of legal immigrants, making up a third or more of non-refugee/asylees immigrants obtained a visa by marrying a U.S. citizen. Family-based immigration is a demand-based system too. The issue is which selection rules yield the highest returns. Martin presents no evidence on this, only noting that the Canadian point system, which does emphasize schooling and jobs, “is working” (page 27). The statistics he supplies to support this assertion are that over half of the Canadian immigrants selected in 2002 spoke either of the “native” languages of Canada and almost half had some post-secondary education. Well, the NIS reveals that among the new 2003 U.S. immigrants, almost half (43%) chose to conduct the interview in English (a stricter criterion than merely “speaking” English) and over half (51%) had schooling beyond high school. Thus a point system is not necessarily superior to the family/sponsor-based U.S. system by Martin’s criteria.

The NIS data indicate that different selection rules do yield different qualities of immigrants. We can divide up the U.S. immigrants into three categories of selection: employer demand for high-skill immigrants, random selection (“diversity” visas) based on a lottery with a high-school or above requirement, and family, including marriage, sibling, parent and adult child.

Following some of Martin’s arguments, Martin would support compensating the spurned native-born suitors of those who chose to marry an immigrant or compensating native-born single women who were crowded out of the marriage market by immigrant women (who are 55 percent of the marriage-visa immigrants).
as criteria but no schooling screen. Not surprisingly, as indicated in Figure 2, the high-skill requirement visa yields immigrants with the highest level of schooling, and the category with a schooling floor yields immigrants with an average schooling level above that of family immigrants. The family immigrants, however, have a mean schooling level above 12 years. What family-based immigration provides, however, is native-born assistance in finding a job.

Figure 3 indicates for each visa category the proportion of the immigrants who had a job lined up prior to immigrating and the proportion receiving job help from relatives. Not surprisingly, a large proportion (31%) of the employment-based immigrants had received a job offer before arriving and the family immigrants had the smallest proportion of those receiving pre-immigration job offers. But, the family-based immigrants were more than three times more likely to have received assistance from family members in finding a job compared with employment-based immigrants (13.9% versus 3.7%). The diversity immigrants have a surprisingly high proportion (12.2%) of immigrants receiving family help and having a pre-immigration job offer, considering that most had no experience in the U.S. and no family member in the United States who could help them obtain a visa (by definition). However, note that a large proportion of lottery visa winners chose not to come to the United States; those who did may have been those with job offers or some resident family members. The job assistance, however, may not have been very successful. Figure 3 shows that unemployment rates in the first few months after immigration among men aged 23-59 are over 40% for the diversity visa-holders, more than double that of the family migrants, despite their lower schooling level. Thus schooling alone, contrary to Martin’s view, is not sufficient to ensure immigrant success. Family networks help too.
D. Permanent Versus Temporary Immigration

We have already seen that a substantial fraction of immigrants entitled to stay without time limits leave or plan not to stay. And, exits by the permanent migrants, especially those with high skill, can have substantial benefits for their home countries. It is also well-known, as cited by Martin, that a large proportion of immigrants not entitled to stay do not leave. Martin promotes a massive temporary immigration program for unskilled workers in which immigrants must leave after very short periods of employment. No rationale or evidence is provided for why unskilled immigrants should not be allowed to remain in the host country. It is clearly not that they can then provide jobs or technical know-how in their home country. Winters et al. (2003) make the political economy argument that temporary workers do not affect the host economy’s culture and do not make demands on its support or educational systems and thus a program allowing only temporary workers, who cannot live with their families nor stay, would be politically acceptable. However, it is doubtful that creating a large, permanent population of temporary, unincorporated immigrants, who would have no incentive to learn the host-country language or adopt its cultural practices, would engender support for immigration. Indeed, it is likely the opposite. Many of the jobs in which the unskilled are in demand are in the service sector, where such workers interact with native-born persons. A common objection to immigration is that immigrants do not learn the language. Martin’s plan to expand the population of unassimilated immigrants who never learn the host country language does not appear to have any benefits compared with a plan that does not attempt to impose stay limits.

Although Martin does a poor job of motivating the placement of restrictions on unskilled immigrants stay in host countries, he does a good job of discussing the difficulties of enforcing
temporary worker programs. But these costs understate the problems. Enforcement is not only costly, it is unlikely to be effective. As a consequence there will be a pool of workers who stay but who are separated from their families or who must use social services in illegal status, thus alienating further the native population. A plan to provide “temporary” workers with “earned” entitlements to stay after a number of years as temporary migrants does not deal with the issue of investment in the children of immigrants. Suppose that a male worker who is married comes to the host country and works for eight years. His children in the home country meanwhile are deprived of their father and obtain schooling in a system that may even be inferior to that in the United States. After eight years, the children can come, but they then have to learn the host country language later in their life, which makes it more difficult to eliminate accents, and have had inferior schooling compared to their similarly aged cohorts in school. Much more attention needs to be paid to the longer-term costs of imperfectly enforced stay-restricted immigration.

E. Conclusion

There is a case to be made for expanding migration, particularly flows of skilled migrants, to developed countries based on global efficiency gains and the inability of trade in goods, even under a very liberal trading environment, to equalize cross-country factor prices, although Philip Martin’s paper does not make the case well. There does not appear to be any good reason presented to limit the stay of immigrants in host countries as he proposes. There is also the issue of “compensation” to those who lose from expanding immigration. Such compensation, if any should be carried out in a manner that minimizes dead-weight loss. Moreover, the notion that countries that lose immigrants, whatever their skill level, should be compensated raises important issues about the causes of skill-price disparities across the world.
and the reasons for emigration pressures. To the extent that these arise from bad institutions and policies in sending countries, such compensation would slow reform and therefore not accelerate development. However, some pressures for migration are due to exogenous factors such as location and geography. There are areas of the world in which it would be inefficient even under optimal governmental regimes to support the large populations that reside there. Perhaps immigration selection schemes in host countries should be attentive to the root causes of immigration pressures in specific countries, conditioning country-specific visa ceilings on institutional reforms in sending countries. Finally, the extent to which international capital flows interact with migration flows needs more attention to fully assess the costs and benefits of expanding immigration.
References


Heston, Alan, Robert Summers and Bettina Aten, Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002.


Foster, Andrew D. and Mark Rosenzweig, “Agricultural Development, Industrialization and Rural Inequality,” Harvard University, September 2003.


Table 1
Alternative Measures of the Origin-Country Wage of Migrants to the United States

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Origin-Country (PPP$) GDP per-capita&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Mean Origin-Country Wage Bill (PPP$) per-worker&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Pre-immigration Origin-Country (PPP$) Earnings&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Post-immigration Mean US Earnings&lt;sup&gt;c,d&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>All</td>
<td>8158</td>
<td>12687</td>
<td>17470</td>
<td>32345</td>
</tr>
<tr>
<td>&lt;12 years of schooling</td>
<td>7347</td>
<td>12449</td>
<td>11322</td>
<td>18885</td>
</tr>
<tr>
<td>High-school graduate</td>
<td>7522</td>
<td>11778</td>
<td>17936</td>
<td>26887</td>
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<tr>
<td>College graduate and above</td>
<td>9334</td>
<td>13657</td>
<td>22126</td>
<td>39356</td>
</tr>
</tbody>
</table>

Sources: <sup>a</sup> Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002. <sup>b</sup> Mean Origin-Country GDP multiplied by the labor factor share (.67). <sup>c</sup> New Immigrant Survey, 1996 U.S. employment principal and spouse visa-holders. <sup>d</sup> Immigrants with an average of three years of residence in the United States.
### Table 2
Earnings and Remittances: 1996 Male Employment and Spouse Immigrants<sup>a</sup>

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean US Earnings (1)</th>
<th>Mean Remittances (2)</th>
<th>(2)/(1) x100 (3)</th>
<th>Pre-immigration Origin-Country (PPS$) Earnings&lt;sup&gt;b&lt;/sup&gt; (4)</th>
<th>(2)/(4)x 100 (5)</th>
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</thead>
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<tr>
<td>All</td>
<td>37242</td>
<td>1545</td>
<td>4.2</td>
<td>17383</td>
<td>8.9</td>
</tr>
<tr>
<td>&lt;12 years of schooling</td>
<td>20813</td>
<td>612</td>
<td>2.9</td>
<td>8028</td>
<td>7.6</td>
</tr>
<tr>
<td>High-school graduate</td>
<td>29949</td>
<td>1945</td>
<td>6.5</td>
<td>17520</td>
<td>11.1</td>
</tr>
<tr>
<td>College graduate and above</td>
<td>52794</td>
<td>2100</td>
<td>4.0</td>
<td>30597</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Sources: <sup>a</sup> New Immigrant Survey, 1996 U.S. male employment principal and spouse visa-holders with an average of three years of residence in the United States.
Figure 1: Alternative Measure of Earnings Gain from Immigration, by Immigrant Schooling Level

Figure 2: Years of Schooling Completed, by Visa Category, Immigrant Men Aged 23-59
Figure 3: Percentage Receiving a Job Offer Prior to Immigrating and Receiving Job Help from Relatives, by Visa Category, Immigrant Men Aged 23-59

Figure 4: Percentage Unemployed, by Visa Category, Immigrant Men Aged 23-59