



Human Development
Research Paper
2009/29
**International Migration
and Human Development**

Dean Yang





United Nations Development Programme
Human Development Reports
Research Paper

July 2009

Human Development
Research Paper
2009/29
**International Migration
and Human Development**

Dean Yang

United Nations Development Programme
Human Development Reports
Research Paper 2009/29
July 2009



International Migration and Human Development

Dean Yang

Dean Yang is Associate Professor of Public Policy and Economics at the Gerald R. Ford School of Public Policy, University of Michigan. Email: deanyang@umich.edu.

Comments should be addressed by email to the author(s).

Abstract

This paper reviews the relationship between international migration and human development. First, it reviews what we know about the factors that drive migration from developing to developed countries. Second, it reviews existing knowledge about the impact of international migration and remittances on the economic and human development of migrants' source countries. These first two sections of the paper are accompanied by an assessment of the gaps in our knowledge that need to be filled with further research.

The last section of the paper outlines policies that could help raise the development impact of migration and remittances. First, governments should extend absentee voting rights to overseas citizens. In addition, facilitating migrants' access to and use of financial services could bring substantial benefits. Furthermore, governments can profitably devote self-discovery and enterprise promotion efforts to small-scale activities. Finally, there could be substantial benefits from encouraging overseas citizens to retire at home while taking advantage of accumulated retirement benefits from their migration host countries.

Keywords: International migration, remittances, human development.

The Human Development Research Paper (HDRP) Series is a medium for sharing recent research commissioned to inform the global Human Development Report, which is published annually, and further research in the field of human development. The HDRP Series is a quick-disseminating, informal publication whose titles could subsequently be revised for publication as articles in professional journals or chapters in books. The authors include leading academics and practitioners from around the world, as well as UNDP researchers. The findings, interpretations and conclusions are strictly those of the authors and do not necessarily represent the views of UNDP or United Nations Member States. Moreover, the data may not be consistent with that presented in Human Development Reports.

Introduction

In the year 2000, there were a total of 175 million people living outside their countries of birth, amounting to 2.9% of world population.¹ The remittances that these migrants send to origin countries are an important but relatively poorly understood type of international financial flow.

Migrant remittances compare in magnitude to other important financial flows destined for developing countries, such as official development assistance and direct foreign investment. In 2007, migrant remittances sent to developing countries amounted to US\$251 billion.² Improvements in remittance data collection and continued immigration flows to developed countries have generated substantial recent interest in the remittance phenomenon among policy-makers, as evidenced by a proliferation of recent policy-oriented reports.³

This paper is about the relationship between international migration and human development. As such, it will go beyond assessing the relationship between migration and economic prosperity in migrants' home areas, and also consider effects on non-economic outcomes in the areas of education, health, and the political realm (both political outcomes as well as the political engagement of citizens). This paper does not examine migration of refugees. While a significant and important phenomenon, migration motivated by civil conflict or war has distinctive determinants, dynamics, and impacts and is beyond the scope of this inquiry.

The paper is organized as follows. The first section of the paper reviews what we know about the factors that drive migration from developing to developed countries. The second section of the paper reviews existing knowledge about the impact of international migration and remittances on the economic and human development of migrants' source countries. These first two sections of the paper are accompanied by an assessment of the gaps in our knowledge that need to be filled with further research. The last section of the paper outlines policies that could help raise the development impact of migration and remittances.

¹ Estimates of the number of individuals living outside their countries of birth are from United Nations (2002), while data on world population are from U.S. Bureau of the Census (2002).

² Ratha et al (2008).

³ Reports funded by the Multilateral Investment Fund of the Inter-American Development Bank include Pew Hispanic Center (2002) and Terry and Wilson (2005). The World Bank has also funded substantial publications on the topic, such as World Bank (2006) and World Bank (2007).

I. Migration decision-making

This section of the paper reviews what is known about the factors that drive migration from developing to developed countries. This is an important first step because the eventual impacts of migration on human development may very well depend on the original motivations for the migration flow. For example, accumulating resources for human capital investments (education, health) in children may be a central motivation for migration. In this context, it is important to also understand what motivates migrants' decisions to return, as return decisions may influence human development outcomes as well, by ending the period of high overseas earnings and remittances. In addition, the return of migrant parents may have important impacts on childrens' outcomes.

Early economic models of migration emphasized wage differentials as the primary impetus behind migration flows. But in the face of substantial wage differentials, why would migrant workers in rich countries ever return to poorer countries of origin? Return migration is a puzzle for such exclusively income-maximizing models of migration (as in Sjastaad (1962) and Harris and Todaro (1970)). A more nuanced understanding of migration decisions – that incorporated both outbound and return migration – is possible in models that consider household utility maximization over a finite horizon, when migrants prefer consumption in the home country to consumption overseas (as in Hill (1987) and Djajic and Milbourne (1988)). Temporary stays overseas are used to accumulate resources for later use in the home country, either for consumption or investment.

In current research on migration decision-making, a current debate is whether durations of migrants' stays overseas are determined primarily by straightforward life-cycle considerations, as opposed to being driven by the need to reach target-earnings levels. By "life-cycle" considerations, one means simply that households choose the length of stay overseas that balances the marginal benefit from higher savings overseas (and thus higher lifetime consumption) against the marginal utility cost of overseas work (as in Stark, Helmenstein, and Yegorov (1997) and Dustmann (2003)). On the other hand, when households face borrowing constraints and minimum investment levels, lengths of stay overseas can be determined by the

amount of time needed to accumulate a “target-earnings” level, as in Piore (1979) and Mesnard (2004).

Distinguishing between the two alternative motivations for return migration is important, because the return decisions of “life-cycle” migrants and “target-earners” can respond very differently to changes in overseas economic conditions. For “life-cycle” migrants, improved economic conditions in host countries—say, increased wages—can lead to longer overseas stays (as long as substitution effects dominate any income effects). For “target-earners,” on the other hand, improved economic conditions should lead to shorter overseas stays, as migrants reach their earnings goals more quickly.

Yang (2006) provides a theoretical model that incorporates both life-cycle and target-earnings considerations for migration duration decisions. Both potential reasons for return migration emerge when households face borrowing constraints and when they face minimum investment thresholds. “Minimum investment thresholds” exist when investments have fixed cost components that to a large extent are indivisible. Examples include fixed tuition fees for educational investments, or investments in capital equipment (e.g., a vehicle for a transportation business). The main theoretical prediction is that “life-cycle” migrants are those at the lowest and highest ends of the foreign wage distribution, while migrants with intermediate foreign wages are “target-earners.” In essence, “target-earners” are those for whom the minimum investment threshold is *just* binding: they prefer investing at the minimum threshold to not investing at all, but if possible would have preferred lower investment levels (and shorter stays overseas). They therefore stay overseas only until their savings reach the minimum investment threshold. By contrast, the foreign wages of “life-cycle” migrants are either too low to ever consider investing, or high enough that they choose above-minimum investment levels.

Empirically, attempts to distinguish between the two alternatives typically examine the correlation between return migration and migrants’ overseas earnings. The evidence has been inconclusive. Borjas (1989) finds among the foreign-born in the US that higher earnings are associated with less return migration. By contrast, Dustmann (2003) documents, among immigrants in Germany, that higher migrant wages (instrumented by parental education) are associated with more return migration (shorter overseas stays). Constant and Massey (2002) find

no statistically significant relationship between earnings and migrant returns in the same German dataset, although migrants who are unemployed or marginally employed are more likely to return.

Other studies have sought evidence that migrants are target-earners by examining correlations among migrant earnings, return migration, and entrepreneurship. In a sample of Tunisian return migrants, Mesnard (2004) documents that migrants were more likely to become entrepreneurs upon return if they had accumulated higher savings overseas. Dustmann and Kirchkamp (2002) find that higher migrant earnings are associated with shorter migration durations for Turkish migrants who become entrepreneurs upon return.

A central methodological concern with existing empirical work on this topic is that the independent variable of interest—foreign earnings—is not randomly assigned across migrants, so any observed relationship between foreign earnings and return migration may simply be caused by unobserved third factors. For example, a finding that migrants with higher earnings have shorter lengths of stay overseas need not imply that higher earnings cause shorter migration durations. Rather, higher-wage migrants could simply have other characteristics that make early return attractive (such as better job prospects at home, or stronger family ties).

Yang (2006) exploits a natural experiment, exchange rate shocks experienced by Filipino overseas migrants, making possible a causal estimate of the effect of migrant economic conditions on return migration. In so doing, it also sheds light on the relative importance of life-cycle versus target-earnings explanations for return migration. The first main finding of the paper is that, on the whole, more favorable exchange rate shocks lead to fewer migrant returns. The regression analysis indicates that a 10% improvement in the exchange rate reduces the 12-month return rate by 1.4 percentage points. Overall, the finding that more favorable exchange rate shocks lead to fewer migrant returns supports the “life-cycle” explanation for return migration. A positive exchange rate shock raises the marginal benefit of staying overseas (by raising the domestic-currency value of foreign wages), and leads to less return migration on the margin.

The second main finding of Yang (2006) is that—even though life-cycle considerations seem to dominate on the whole—migrants from a subset of households appear to be target-earners. The

effect of the exchange rate shock on returns is greatest for households with the lowest and highest values of a foreign wage index, and lowest for those with intermediate values of the index. In households with intermediate values of the foreign wage index, the exchange rate shocks lead to increases in variables associated with household investment, such as vehicle or real estate purchases and entrepreneurial income. These results are consistent with the theoretical prediction that the migrants most likely to be target-earners are those in the middle of the foreign wage distribution: positive exchange rate shocks make target-earners more likely to return home and to invest (because they become more likely to have reached the minimum investment threshold).

II. The impact of migration and remittances on human development

This section reviews the impacts of migration and remittances on a variety of human development outcomes, and also reviews emerging new evidence on the impact of financial innovations that put more control over remittances uses in the hands of migrants.

A. Impacts of migration and remittances

Migration flows, and the remittances that often follow, can have a variety of impacts on those left behind in the home country as well as migrants themselves. Areas of potential impact on those left behind extend beyond income from remittances to the areas of education, health, entrepreneurial activities, and even the political realm. Indeed, impacts can take the form of costs as well as benefits; examples of the potential negative effects that are often hypothesized include lowering of the labor force participation of prime-age remittance recipients, and detrimental impacts on child development when parents are absent.

Aside from assessing the evidence on the impact of migration on migrants' incomes, it is beyond the scope of this paper to conduct a proper assessment of the voluminous literature on the impacts of migration on the migrants themselves (such as their labor market performance, health, and education outcomes). In what follows, this paper will focus mainly on impacts on those left behind in migrants' home countries.

The impact of migration on the earnings of migrants

Migration typically brings about dramatic increases in the earnings of migrants. Clemens, Montenegro, and Pritchett (2009) use data from a large number of developing countries and the U.S. to estimate the “place premium”: the increase in wages that foreign workers experience when they enter the U.S. They compare the earnings of observably similar individuals (with the same country of birth, age, education, experience, gender, and urban/rural location) but who happen to be in different countries (the U.S. vs. the country of birth). They find that the place premium is typically very large in magnitude, with a median across source countries of 4.11 times home country wages, and ratios ranging from 2.0 for the Dominican Republic, 3.8 for Peru and 15.5 for Yemen. Of course, there may be unobservable differences in the characteristics of movers vs. stayers that lead these ratios to overstate the *causal* impact of migration on wages. The authors then correct these estimates using data on a subset of countries for which representative survey data are available on the wages of movers vs. stayers, finding that the overstatement is typically not very large: the place premium that takes into account the selectivity of migration would still be above 3 in 20 out of 42 countries and above 2 in 38 out of 42. In other words, for migrants from nearly all countries, migration would lead to at least a doubling of wages.

For many countries, the aggregate earnings of migrants are so large that income per “natural” (someone born in a given country, whether currently living overseas or in the country of birth) is substantially higher than income per capita of individuals *resident* in a given country. Clemens and Pritchett (2008) document that 43 million people live in a set of countries where income per natural is 50% higher than income per resident, and for 1.1 billion people the difference between income per natural and income per resident is greater than 10%. For El Salvador, for example, income per natural is 16.5% higher than income per resident.

Mckenzie, Gibson, and Stillman (forthcoming) provide probably the only causally well-identified estimate of the earnings impact of migration from a developing to a developed country, taking advantage of exogenous migration opportunities among Tongans induced by New Zealand’s Pacific Access Category (PAC). The PAC allows 250 Tongans per year to obtain emigrant visas in New Zealand. Among applicants who meet certain basic criteria (such as age,

English language ability, and health requirements), a lottery determines provision of the emigrant visa. Their estimate of the causal impact of migration on the earnings of Tongans migrating to New Zealand is 2.6 times (migrants earn an average of 378 New Zealand dollars per week, compared to 104 New Zealand dollars per week for non-migrants).

Impacts on consumption and household investment

When migrants leave their home countries and send remittances home, what types of expenditures do the remittances help to fund? Typically, when this question is asked, a natural distinction is made between consumption and investment expenditures by remittance-recipient households. It should be noted, of course, that neither use of remittances – consumption or investment – should be assumed a priori to be “better”. It could be optimal for households to use remittances mainly on consumption, particularly if they are starting from very low consumption levels. For households somewhat further above subsistence consumption levels, it is useful to examine whether receipt of migrant remittances leads to household entrepreneurial investments, because of their implications for longer-run growth of income and other aspects of well-being in migrant source households. Accumulated migrant earnings can allow investments that would not have otherwise been made due to credit constraints and large fixed costs of investment.

An existing literature argues that resources received from overseas rarely fund productive investments, and mainly allow higher consumption. For example, see Lipton (1980), Reichert (1981), Grindle (1988), Massey et al. (1987), Ahlburg (1991), Brown and Ahlburg (1999), and references cited in Durand et al (1996). On the other hand, other research finds that migration and remittance receipts are positively correlated with various types of household investments in developing countries. Examples include Brown (1994), Massey and Parrado (1998), McCormick and Wahba (2001), Dustmann and Kirchkamp (2002), Woodruff and Zenteno (2008), and Mesnard (2004) on entrepreneurship and small business investment in a variety of countries; Adams (1998) on agricultural land in Pakistan; Taylor, Rozelle, and de Brauw (2003) on agricultural investment in China; and others.

A central methodological concern with existing work that attempts to understand the impact of remittances on household consumption or investment is that migrant earnings are in general not

randomly allocated across households, so that any observed relationship between migration or remittances and household outcomes may simply reflect the influence of unobserved third factors. For example, more ambitious households could have more migrants and receive larger remittances, and also have higher investment levels. Alternately, households that recently experienced an adverse shock to existing investments (say, the failure of a small business) might send members overseas to make up lost income, so that migration and remittances would be negatively correlated with household investment activity.

An experimental approach to establishing the impact of migrant economic opportunities on household outcomes could start by identifying a set of households that already had one or more members working overseas, assigning each migrant a randomly-sized economic shock, and then examining the relationship between changes in household outcomes and the size of the shock dealt to the household's migrants.

Yang and Martinez (2005) and Yang (2008) take advantage of a real-world natural experiment that is analogous to the experiment just described. A non-negligible fraction of households in the Philippines have one or more members working overseas at any one time. These overseas Filipinos work in dozens of foreign countries, many of which experienced sudden changes in exchange rates due to the 1997 Asian financial crisis. Crucially for the analysis, the changes were unexpected and varied in magnitude across overseas Filipinos' locations. The net result was large variation in the size of the exchange rate shock experienced by migrants across source households. Between the year ending July 1997 and the year ending October 1998, the US dollar and currencies in the main Middle Eastern destinations of Filipino workers rose 50% in value against the Philippine peso. Over the same time period, by contrast, the currencies of Taiwan, Singapore, and Japan rose by only 26%, 29%, and 32%, while those of Malaysia and Korea actually fell slightly (by 1% and 4%, respectively) against the peso.

Taking advantage of this variation in the size of migrant exchange rate shocks, these papers examine the impact of the shocks on changes in outcomes in migrants' origin households, using detailed panel household survey data from before and after the Asian financial crisis.

Yang (2008) shows that these exogenous increases in migrant resources are used primarily for investment in origin households, rather than for current consumption. Households experiencing more favorable exchange rate shocks raise their non-consumption disbursements in several areas likely to be investment-related (in particular in educational expenditures), and show enhanced entrepreneurship participation in entrepreneurial activities. Households raise hours worked in self-employment, and become more likely to start relatively capital-intensive household enterprises (transportation/communication services and manufacturing). By contrast, there is no large or statistically significant effect of the exchange rate shocks on current household consumption. Yang and Martinez (2005) extends the analysis and shows that these positive migrant exchange rate shocks also lead these households to be more likely to exit poverty status.

These effects of Philippine migrants' exchange rate shocks on their households left behind are large in magnitude. Consider an improvement in the migrant's exchange rate of 25% against the Philippine peso, which is a reasonably-sized shock and roughly the size experienced by migrants in Taiwan. A shock of this size had a number of beneficial effects on migrant households, on average. Remittances increased by 6.0 percentage points (as a share of pre-shock household income, from a base of 40 percent of pre-shock household income). From a base of 9%, households became 1.5 percentage points less likely to be below the income poverty line. Households became 14 percentage points more likely to enter a new entrepreneurial activity (from a base likelihood of 23.7%). Total hours worked in self-employment activities rose by 2.5 hours from a base of 21.5 hours (across all individuals in the household). Households also become 3.6 percentage points more likely to own a vehicle (from a base of 13%), which is likely related to the increase in hours spent on entrepreneurial activity: transportation services is one of the entrepreneurial activities that sees increases in time allocation.

Another important line of research examines the impact of the migration decision itself on human development outcomes in migrants' origin countries. The key challenge, again, is to find exogenous variation in migration, because the migration decision is determined simultaneously with other outcome variables of interest. A powerful approach in answering this question involves taking advantage of exogenous variation in migration created by lotteries that are held by destination countries among source-country potential migrants. The U.S. Diversity Visa Lottery is the most prominent example, but other lotteries exist that could be exploited as well.

Gibson, McKenzie, and Stillman (2008) study Tongan migration induced by New Zealand's Pacific Access Category (PAC), another useful context in which to study migration's impact on those left behind. Because winning the lottery allows one's entire immediate family to move to New Zealand, they investigate effects on extended family members of lottery-winning families who stay behind in Tonga. It is important to keep in mind, of course, that while those winning the lottery are randomly selected among the pool of applicants, lottery applicants (and their households) themselves are a select group that are unlikely to be representative of the population as a whole. Therefore, estimates of the impact of migration among lottery winners would not represent the impact of migration of someone from a household randomly selected from the population as a whole. That said, an estimate of the impact of migration among a group a population that has expressed an interest in migration (e.g., the group of lottery applicants) is probably more relevant from a policy standpoint.

Gibson, McKenzie, and Stillman's (2008) results are quite striking, in that they find a number of adverse consequences for family members staying behind. Strikingly, income per capita in the households of individuals whose relatives win the lottery is roughly 20-25 percent lower because the rise in net remittances does not offset the large fall in labor earnings caused by the departure of migrant relatives. They also find negative effects on livestock and durables ownership as well access to financial services: relatives of migrants own 3.9 fewer chickens (from a base of 8.5), 0.8 fewer cattle (from a base of 1.7), and are 17 percentage points less likely to have a bank account (from a base of 89%).

Impacts on schooling and health outcomes

A variety of studies that compare remittance-recipient households with those not receiving remittances find that remittances are associated with human capital investments. For example, Cox-Edwards and Ureta (2003) and Adams (2005) find that remittances are associated with improved child schooling in El Salvador and Guatemala, respectively. Of course, even with regression-based controls for observable household characteristics, these studies remain open to the concern that unobservable differences across households (and not the remittances themselves) are the true drivers of the differences in educational investments.

That said, the few studies that take advantage of plausibly exogenous variation in migration or remittances do find positive *causal* impacts on child schooling (and corresponding reductions in child labor). In Yang's (2008) study of the impact of migrant exchange rate shocks, more positive migrant shocks are associated with more child schooling and less child labor (for children aged 10-17; data on schooling and labor supply were not collected for children younger than 10). Again, it makes sense to consider an improvement in the migrant's exchange rate of 25% against the Philippine peso. A positive shock of this size leads to a 3.3 percentage point increase in the likelihood of girls attending school (from a base of 95%). The increase for boys is smaller (1.7 percentage points from a base of 93%) and not statistically significantly different from zero. However, boys do experience a statistically significant reduction in mean hours worked per week of 0.8, from a base of 1.5 (and in this case the 0.5 hour reduction for girls is not statistically significant). The different effects for boys and girls are sensible, since girls were already more likely to be attending school, and boys were already more likely to be working prior to the exchange rate shocks.

Mckenzie and Hildebrandt (2005) use an instrumental variable strategy (instrumenting for household migration with historical local migration networks) and find that children in migrant households have 3.7% lower infant mortality and higher 350 grams higher birthweight. In addition to the effect operating via higher wealth in migrant households, other reasons for the positive impact of migration include better health knowledge and preventative health care, and more prevalent breastfeeding and vaccinations in migrant households.

Gibson, Mckenzie, and Stillman's (2008) study of Tongan households with family members entering the New Zealand visa lottery also finds striking health impacts. While incomes of family members remaining behind fall, due to changes in diets, working age adult relatives of lottery winners actually experience improvements in health, in the form of reductions in body mass indices and waist to hip ratios: BMI falls by 2.2 (from a high base of 32.4), and waist to hip ratios fall by 0.029 from a base of 0.925. Gibson, Mckenzie, and Stillman (2008) also examine impacts on child educational outcomes and investments, but find no effects on these variables.

Impacts on politics and political engagement

Migration flows also have the potential to influence political attitudes in migrant source countries. When the migrant flows are large as a proportion of population, they also can have substantial effects on political outcomes.

In research based on in-depth interviews among migrants from the Dominican Republic in the U.S. and in Dominican sending communities, Levitt (1998) and Levitt (2001) argue that migrants can transmit political values learned in their host countries to family members (and sending communities more generally) in their countries of origin. These “social remittances” are transmitted via return visits, phone calls, and other forms of communication. Using survey data from several Latin American countries, Córdova and Hiskey (2009) test Levitt’s “social remittance” theory and find that individuals in migrant source countries with greater connections to international migrant networks are more supportive of democratic principles, but are also more critical of their own country’s democratic performance. At the same time, connections to migrant networks are associated with greater participation in local community affairs (such as via voting or participation in local community organizations). Similarly, using survey data from Mexico, Goodman and Hiskey (2008) find that individuals in high migration communities participate less in politics but are more active in local community organizations.

High levels of migration and remittances may also alter political outcomes. Bravo (2008) examines voting outcomes at the municipal level in Mexico and finds that areas with higher outmigration have political outcomes that are more adverse towards women. He shows that high outmigration leads to population sex ratio more highly skewed towards women (because most migrants are male). This leads to increased power on the part of men in marital relationships, and thereby to less political engagement by women and to voting outcomes more adverse towards women (such as lower shares of female municipal officials).

Frank and Regan (2009) examine data at the country level over time, and find that higher levels of remittances are associated with a lower incidence of civil war. They argue that because remittances respond countercyclically to economic conditions in the home country, remittances

ameliorate the social tensions arising from economic crisis that might otherwise lead to civil conflict.

In sum, it appears that outmigration has effects on the political engagement of individuals in the home country, leading those with exposure to migrant networks to be more critical of their home democratic conditions and to be more active in local community organizations. There can also be aggregate effects on political outcomes when migrant outflows are large as a share of population.

New directions for research

The general methodology used in previously-mentioned research on Philippine migrants – examining the impact of an economic shock experienced by overseas migrants on remittances and the outcomes of family members left behind – can potentially be applied in a variety of different contexts. Studies using a similar methodology can be useful to ascertain whether the results in the Philippine case extend to other contexts, or, if not, what might account for the differences in impacts.

The key requirements for such a study are: 1) an origin country whose migrants are destined to a wide variety of overseas destinations, 2) large and heterogeneous economic shocks in destination areas, 3) data on migrant locations before the shocks, and 4) data on migrant and origin household outcomes after the shocks. Many situations satisfy elements 1) and 2): for example, migrants from India and the other countries of South Asia also are destined for a wide variety of overseas destinations, and regional or global country-level economic shocks (such as the current 2008-09 global financial crisis) are often heterogeneous in magnitude across migrant destinations. Migrants from specific countries in Latin America are often destined for a variety of locations across the United States, and it may even be possible to exploit state-level (and perhaps occupation- or industry-specific) economic shocks experienced by migrants to achieve identification.

A likely hindrance to future research along these lines among other migrant populations is that there are fewer situations where the requisite survey data (elements 3) and 4)) are available. The Philippine case is unusual, in that the National Statistics Office of the Philippines administers a linked set of high-quality surveys to a nationally-representative household sample that includes a

