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Effects of Labour Mobility: An Analysis of Recent International Development Literature

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Abstract

Successive censuses have shown that the Aboriginal populations of Canada are very mobile with strong tendencies to move to urban areas, but little is known about the consequences of these circular movements on the development of First Nations, the welfare of individual members and their families, and the costs and benefits to their larger communities. This article reviews the large body of literature on the nexus between mobility and development of countries in the developing world with a view to developing insights that may be relevant to the development of First Nation communities. While there are clear differences, the two contexts may be similar enough – in terms of socio-economic well-being, service levels, and institutional barriers to socio-economic development – for such analysis to contribute to understanding the effects of migration on the migrants themselves, their households, and their communities and countries of origin. The experience of developing countries suggest that there are positive gains not only in earnings but also in education and health for those who move internally and more so for those able to move internationally, even if there remain some concerns about negative effects on migrants’ families left behind, especially on the children. What seems clear is that migration plays an important role in family survival strategies. Money migrants send home finance the education of children, enable better health care, and improve housing. They shield migrants’ families against all kinds of “shocks”. However, emigration may reduce the human capital stock (brain drain), thus adversely affecting productivity. The loss of health professionals can set back critical medical services in remote communities, and disrupt formal and informal systems for transferring know-how. These “spill-over effects” or externalities on origin communities can be significant, imposing burdens on those left behind. Finally, the article looks at how diaspora communities have served as sources of information, linkages, or networks with businesses, markets for sovereign bonds, mediums for the transfer of technology and know-how, and a market for tourism.

Keywords

Aboriginal, labour, work, mobility, churn migration, urbanization

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Effects of Labour Mobility: An Analysis of Recent International Development Literature

The Aboriginal population, including the Registered Indian population, is very mobile. One aspect of this mobility is increasing urbanization. In the past few decades, the movement of Registered Indians between reserves and urban areas has been an important dimension of the migration patterns of Registered Indians. Notably, this movement does not mark a mass exodus from reserves to cities. On the contrary, successive censuses from 1986 to 2006 have registered the net migration to First Nation communities as positive (Aboriginal Affairs and Northern Development Canada [AANDC], n.d.). Borrowing from analyses of mobility in the developing world, demographers in Canada refer to “churn” or “turbulence” in describing the movement of First Nations people between reserve and urban destinations (Norris & Clatworthy, 2003).

Various reasons for this movement have been offered. For example, the 1991 Aboriginal People’s Survey identified education as a major reason for leaving reserves. Analysis of the APS also identified family and housing needs as reasons cited for both leaving and returning to reserves (Peters & Robillard, 2007). As a “pull” back to reserves, the rights and benefits associated with reserve residence (for example tax exemption, housing, use of Aboriginal and/or treaty rights) are cited, as well as the notion that the reserve is a “cultural hearth” providing family, community, and cultural supports (Norris, Cooke, Beavon, Guimond, & Clatworthy, 2004).

Less mention has been made of the search for work as a factor in the movement from reserves to cities, just as little research exists on the movement of Registered Indians as workers between reserves and cities. We know from the Canadian Census, the Labour Force Survey, and studies such as the Urban Aboriginal People’s Study that First Nations people are also moving for this reason. What are some of the costs and benefits of the movement of labour between cities and reserves – for individuals and for their home communities?

A fruitful initial approach to these questions may be to examine the large body of international development literature analyzing the experience of migrant workers in the developing world. There are of course clear differences between the developing world and the First Nation context: Registered Indians, for example, are obviously not “guests” in cities that are in many cases located in their traditional territories. Yet, past research indicates that the two contexts may be similar enough – in terms of socio-economic well-being, service levels, and institutional barriers to development – for such analysis to contribute to future research.

With these similarities in mind, the objective of this article is to craft a high quality, summary analysis of international literature that centres on trends and effects of labour mobility in developing countries. The focus is on movement from rural communities to larger urban centres, including migration across national borders with the intent of developing a better appreciation of the potential costs and benefits of migration between cities and First Nation reserves in Canada.

The organization of the article proceeds as follows. First, we focus on trends in labour mobility, highlighting significant facts established by research about the mobility of workers within countries and neighbouring regions, as well as to more distant destinations, and the economic and non-economic

factors identified as possible explanations. The next section reviews research findings on the more direct and identifiable effects of migration on the migrants themselves, their households, their communities and countries of origin, and how national policies make a difference to outcomes. Third, we turn our attention to the macro impacts of migration including a summary of the research on the effects of remittances on the origin country. Fourth, we present an assessment of migration costs and benefits including the difficult challenge of determining the positive and negative externalities of migration. The following section summarizes a fast growing literature on the role of diaspora in the development of home countries. Finally, we identify issues for future policy-oriented research of relevance to First Nation communities including, wherever applicable, theoretical frameworks and analytical models that have proven helpful in testing various hypotheses about economic and social consequences of mobility.

Trends in Labour Mobility

Historical comparisons of mobility are difficult to make because of dearth of data, but the rural to urban movements in early 19th century Europe are now well documented, as well as the massive movements of people across the Atlantic from Europe and Africa to settle the Americas. In Great Britain, the mid-1800s saw more than one out of every three rural residents leave for an urban area (Long & Ferrie, 2003). Today, there is a general perception that mobility of workers is again on the rise everywhere. The massive movement of workers from the rural hinterlands to the cities has recently been seen in China during its dramatic transformation from an underdeveloped agricultural economy to a modern industrial giant, and in the Middle East where foreign workers have been imported from Asian and African countries by the hundreds of thousands every year since the mid-1970s to convert petro-dollars into modern infrastructures (Castles & Miller, 1993). The 1980s have also seen a spike in migration to North America and in the 1990s to Western Europe after the collapse of the former Soviet Union and the expansion of the European Union (EU) to more member states (Martin, Abella, & Kuptsch, 2006). Contributing further to this perception of growing mobility is the rapid rise of mega-cities in the developing world like Mumbai, Mexico City, and Shanghai where the economies of agglomeration are playing themselves out with important consequences for global movements of capital and trade (Shlomo, Sheppard, & Civco, 2005).

In spite of strong attachment to their traditional homelands, Indigenous populations in some countries are also observed to be highly mobile. Many, especially among the youth, are migrating or commuting from their “reserves” to cities in pursuit of higher education, employment, or simply to experience a different lifestyle. In Canada, two-thirds of Métis households are already in urban centers with most of future growth in their numbers already projected to occur in urban areas (Indian and Northern Affairs, 2007). Greater exposure of the Indigenous groups to mainstream society is seen by some observers as a positive trend (Graham & Levesque, 2010). It enables many to escape from a culture of dependency and to acquire skills and aptitudes likely to contribute to the development of their origin communities.

Are People Becoming More Mobile?

For the preparation of its 2009 Human Development Report, the United Nations Development Programme (UNDP) commissioned a number of experts to look at the evidence of growing intensity of

population mobility, its consequences and implications for development policy (UNDP, 2009).¹ These studies revealed the enormous complexities involved in making cross-national comparisons of mobility and the limits to analysis of historical trends due to dearth of information about its past dimensions. Countries differ in their sources of information, the reference period they used, and the periodicity of their censuses. However, the most problematic for purposes of comparison, particularly in measuring the intensity of internal migration, is the absence of a common spatial scale. For example, an inter-provincial movement in Vietnam may involve only a few kilometers, but it may entail over a thousand kilometers in Canada. Migration intensity may look high for two countries of the same size if one is divided into many more zones than the other. Data on previous residence and current duration, according to Bell and Muhidin (2009), can only be used effectively to measure comparable migration if both questions refer to the same spatial scale.

The UNDP took a sample of 24 countries with a combined population equal to 57% of the world's population. Adopting a conservative definition of internal migration (counting movement across only the largest zone demarcations in a country), it estimated that the number of people who move internally is six times greater than those who emigrate (UNDP, 2009). From these estimates, the UNDP (2009) arrived at a global estimate of 740 million for internal migrants - people living within their home country but outside their region of birth. These internal migrants represent 12.5% of the global population. Estimates of international migrants are much smaller, placed at around 200 million, or just about 3% of the global population. One major conclusion of the UNDP studies is that "contrary to conventional wisdom, and widespread assertion, there is no evidence that the incidence of mobility in the world is undergoing an inexorable rise, at least not so far as it is captured in measures of permanent migration at the inter-regional level . . ." (Bell & Muhidin, 2009, p. 49).

Who Are More Mobile?

Some countries, like China, did experience more intense movements than others. From 1990 to 2005 about 80 million Chinese workers and their families were estimated to have migrated to another province (Chan, 2009). Taking into account all types of internal movements, *The Economist* ("The Impact of Chinese Migration," 2012) reported: "... all told, some 230 million Chinese spend most of the year away from home town or village. This is almost a third of all people globally estimated by the UN to be migrating within the borders of their own country" (para. 2). By contrast, Canada has one of the lowest rates of internal mobility. Inter-provincial migration has been on a seminal decline from about 1.8% of the population moving across provinces in 1973 to less than 1% in 2011 (Basher & Fachin, 2008; TD Economics, 2011).

In its 1999 World Population Monitoring Report, the United Nations (2000) examined population statistics from a sample of countries in various regions. It concluded that the propensity to migrate was higher in Latin America and the Caribbean (LAC) than in Asia, and that women were more prominent in LAC migration streams than in other developing area. According to Bell and Muhidin (2009), this was arrived at after comparing internal migration propensities and trends across 15 countries in Asia, Africa, and Latin America. Comparability was a serious weakness since the assembled data included both lifetime and fixed interval measures and the data for individual countries differed widely in level of spatial

¹ The reports based on these studies are available from the UNDP website at <http://hdr.undp.org/en/reports/global/hdr2009/>

resolution. The report also compared available evidence on the intensity of rural-urban migration and found that the rate of rural outmigration rose strongly in Asia from the 1960s to the 1980s, accounting for two-thirds of urban growth in the region. Rural-urban migration was estimated to have fallen in Africa and in Latin America and the Caribbean - it rose and then fell during the same period.

How Far Do Most People Move and Why?

Seasonal migration is an aspect of mobility that is not well captured by periodic censuses but is known to have a long history in some regions and said to be on the rise by others (Ellis, 1998). It is considered integral to the coping, survival, and livelihood strategies of families in the tribal areas of western India (Gadgil & Guha, 1995), among the subsistence farmers in Burkina Faso (Konsiega, 2007), and in the Sahel region of West Africa. While it is often the consequence of environmental crises, some researchers argue that seasonal migration has much to do with relations of dependency and indebtedness, which subsistence failure entails (Mosse et al., 2002). Seasonal migration offers opportunities for meeting contingencies not so much due to declining production but to systems of usurious money lending, labour contracting, and exploitation.

Movement of people across national borders is constrained by state policies and are understandably smaller than internal movements. The UN estimate of 214 million stock of international migrants in 2010 is widely assumed to be conservative and represents an average rate of growth of only 1.1% a year over almost a half century (1960 to 2005) (UNDP, 2009). Its share of the world population has remained the same (2.7% in both 1960 and 2005), excluding the former Soviet Union and Czechoslovakia.² “Most migration occurs within countries in the same category of development: about 60% of migrants move either between developing or between developed countries...” (UNDP, 2009, p. 2).³ Nearly half of all international migrants move within their region of origin and nearly 40% move to a neighbouring country. About 6 out of 10 move to a country with same religion and 4 out of 10 move to a country with same language. Over the period from 1960 to 2005, there has been a slight rise in the proportion of females among migrants in Africa (from 43.1 to 47.8%), and in Latin America and Caribbean (from 44.6 to 48.4%) (UNDP, 2009).

While the search for a better life is one of the main motive forces for migration, poverty has remained its main constraint. Migration is a costly enterprise; hence, most can only afford to move to nearby cities within their countries or to a neighbouring state. Academic observers of migration use the term “migration hump” to refer to the phenomenon whereby propensities to migrate are smaller at low levels of per capita income, but rise progressively as per capita income rises until it reaches a plateau and then subsequently declines (Martin & Taylor, 1994). The UNDP’s (2009) examination of migration by region and level of development between 2000 and 2002 showed that emigration rates were low for some of the richest countries, such as Canada and the US (North America), but the pattern is not clear for other regions and levels of development, suggesting the factors behind propensities to migrate are many and income may not always be decisive. In Europe, the existence of many national borders and a policy of free movement among EU states and among Commonwealth of Independent States (CIS)

² Adding them would mean including as international migrants nationals of former member states who were not earlier considered as such; hence, the percentage rises from 2.6 to 3.0 of the world population.

³ In 2010, about half of all international migrants were residing in one of the rich (OECD) countries with about 50 million in US and Canada, and 69 million in Europe.

explain the high-recorded rates of emigration. Emigration rates from small countries (e.g., 45.3% for Antigua and Barbados) are notably higher than from big countries (e.g., 0.5% for China).

Finally, security and human rights differences add to migration pressures. Martin et al. (2006) noted that, after the global conflict between capitalism and communism ended in the early 1990s, local conflicts erupted in many areas, leading to separatist movements, new nations, and more migrants as in the former Yugoslavia and the former Soviet Union. In their words “...the emergence of new nations is almost always accompanied by migration, as populations are reshuffled so that the ‘right’ people are inside the ‘right’ borders” (p. 11).

Summary

The conceptual and practical difficulties in comparing measures of population mobility across countries preclude sweeping generalisations, but it is safe to say that current rates of mobility in some countries and regions are by no means historically unique. Available evidence points to the heterogeneity of situations among countries belonging to different levels of development and many factors contribute to the intensity of mobility. Research confirms that mobility within countries is much more intense than across countries for easily understandable reasons: It is costly to migrate and nation states control their borders. Finally, even at low levels of income, imbalances in the geography of economic growth (as witnessed in China), as well as political changes (like the fragmentation of the Soviet Union), can induce intense mobility.

Direct Consequences of Migration

There is an *a priori* expectation that people, unless forced by violence or victimised by criminal syndicates, would only move if they can improve their well-being or welfare. It is, thus, widely taken for granted that migration, internal and especially international, leads to positive changes for the migrants, even taking into account the fact that there are instances of exploitation and discrimination. Most empirical research indicates that migrants generally “gain” from moving (Clemens, 2010). Country-level studies based on comparing incomes of migrants before and after migration invariably show significant improvements in migrants’ conditions, whether this is in terms of earnings, consumption, housing, or children’s education.⁴ There may be contradictory effects on household income, where departure of a member reduces labour and leads to a decline in farm output, but this is counterbalanced by remittances received.⁵ The gains in earning power of emigrants to other countries, especially to the more developed ones, are well documented. These gains were captured by studies of migrant assimilation in the receiving countries, as well as by more recent investigations in origin countries on the impact of migrants’ remittances on the welfare of families left behind.

⁴ Most empirical studies rely on general-purpose surveys like household income and expenditure surveys, which may provide information on remittances and incomes, and expenditures for consumption, housing, education, and health, but they do not contain leads to other consequences that are harder to quantify.

⁵ Taylor and Rozelle (2003) found that farm output declined in rural China, but remittances increased per capita household income by between 14% and 63%.

Measuring the Gains from Moving Internally

We first look at the evidence on the direct impact of internal migration on the migrants and their families. One recent study in Bolivia found that workers, even with only 5 years of schooling, who moved from the countryside to the cities, experienced more than a 4 fold increase in income (Molina & Yanez, 2009). In spite of the rich literature on rural-urban migration, there are relatively few studies making cross-country comparisons of impacts on migrants. With a view to filling this gap, the UNDP commissioned studies seeking to establish a link, if any, between internal mobility and level of human development.⁶ One of these studies took a sample of 16 developing countries and calculated the Human Development Index (HDI) for internal migrants and non-migrants.⁷ Harttgen and Klasen (2009), who undertook the study, computed the three basic dimensions of HDI – life expectancy, education, and per capita GDP – and the overall HDI rating for different population sub-groups. They found that differences in human development between internal migrants and non-migrants within countries could be substantial, although generally much smaller than differences in human development by income groups. Internal migrants generally show a higher human development than non-migrants. Of the 16 countries, 14 showed a higher value of the HDI for internal migrants than for non-migrants. The largest effect on the overall HDI index comes from the GDP index and the lowest effect comes from the life expectancy index. Disaggregating the analysis by urban and rural areas they found that urban internal migrants are better off than urban non-migrants and rural migrants are better off than rural non-migrants. Guatemala and Zambia were the only countries that had higher indices for non-migrants compared to migrants. In both countries, per capita incomes and adult literacy rates for non-migrants are higher than for migrants, but these may have to be viewed in context very specific to the two countries.⁸ Based on the general findings of the study, the authors are careful to point out that the method they used is susceptible to selection bias, since the internal migrants constitute a non-random sample of the population. The people who migrate may have characteristics which, had they stayed in their usual residence, also performed well in the index.

Empirical investigations into the impact of migration pose special challenges for a number of reasons. Migration is a dynamic process involving actors who are very likely self-selected: movers are more ambitious, more willing to take risks, and have better skills and abilities than non-movers. These are referred to as “unobserved variables” that are impossible to control for if one has to work with cross-sectional data to compare certain observed parameters on migrants with those on non-migrants at one point in time. Ideally, one should be able to isolate the impact of the act of “moving” from other variables by looking at changes in the situation of the same individual before and after migrating, and comparing them with “stayers” with the same observable characteristics. Researchers rarely have the option of using experimental or longitudinal data, which would allow one to follow the same sample units over a long enough period to assess changes. The closest one gets is to work with panel data in general-purpose

⁶ For a complete list of commissioned studies go to <http://hdr.undp.org/en/reports/global/hdr2009/papers/>

⁷ The HDI index was developed by the UNDP in order to take into account, in addition to GDP per capita, other parameters of development including health and life expectancy, literacy and education, standard of living (e.g. access to potable water), employment, gender equality, political participation, and power over resources.

⁸ In these cases, migration was forced on people due to violent civil wars.

surveys specially constructed to show changes over time.⁹ In Canada, studies on the impact of internal migration have benefited from the availability of panel data extracted from the Longitudinal Administrative Data (LAD) based on individual tax returns over many years (Bernard, Finnie, and St. Jean, 2008; see also Statistics Canada, n.d.).

The findings on the positive impact of internal migration on the migrants are consistent with those found in Canada using LAD. Several studies show that many, especially youth, move to richer provinces where wages and salaries are much higher than in their places of birth (see Coulombe, 2006; Finnie, 2001). According to Bernard et al. (2008), migration is driven largely by economic opportunities, as evidenced by the fact that the two richest provinces, Ontario and Alberta, are preferred destinations. They found that male migrants, on average, experienced an earnings growth of 15% from the year prior to migration to the year following migration, compared with 8% for non-migrants. The growth in earnings among younger migrants was significantly higher than for older groups, suggesting that age matters in integrating successfully in the labour market. Finnie (2001) also cites the work of Osberg, Gordon, and Lin (1994), who based their investigation on labour market activity surveys (LMAS) data for the 1986 to 1987 period and found that males who moved from one region (not province) to another had significantly greater 1 year increases in earnings than did non-migrants (22.8% versus 9.0%), while female movers had only slightly greater increases compared to female non-migrants (15.0% versus 13.2%). Their results point to sizable returns to migration for men, but only marginal gains for women.

No cross-country comparisons of the impact of remittances from internal migrants was found, but in China, a cross-sectional study of rural households by Zhu, Wu, Du, and Cai (2012) found that the marginal propensity to save out of remittances is well below half of that out of other sources of incomes. The authors claim that other recent studies in China also found no link between migration and productive investment.

Better Health Outcomes in Moving to the Cities

In most of the developing world, the phenomenon of increasing urbanisation is widely associated with improvements in children's health, because rural areas lag behind urban areas with respect to the availability of child health care services, both preventive and curative (Harpham et al., 2004). Migration can become an important determinant of child mortality. In India, Keshri and Bhagat (2011) analyzed the differentials of mortality rates and child health care utilization among different migrant and non-migrant groups (natives) using India's third round of the National Family Health Survey (NFHS-3, 2005 - 2006). They found large differences among groups: urban natives, rural-to-urban migrants, and rural natives, with the latter being the most disadvantaged as shown by infant mortality rates and access to curative care. This is probably one important reason for the growth of rural-urban migration in some developing countries, despite the fact that most migrants end up living in squalid slum areas.

Only a few studies explored questions related to the impact of internal migration on such matters as health and emotional well-being of the migrants and their families. Finding panel data from family life

⁹ Some countries do conduct family life surveys, which are multi-purpose surveys to track socio-economic, demographic, and health transitions in households over time. For an illustration see Deb and Papa (2009).

surveys in Indonesia and Mexico, Deb and Seck (2009)¹⁰ sought to measure such effects and found that in both countries migrant households are much more likely to report a higher prevalence of morbidity than non-migrants. They speculate that this may be due to the need to acclimatize to the place of destination and the greater stress that migration usually imposes on all household members.

Workers Moving to Where They Can Be More Productive

Because of differences in labour productivity among sectors, transfers of labour from less to more productive sectors should lead to higher overall growth of the economy. There are economy-wide gains when markets are not segregated and labour is not restrained from moving to where it can earn higher wages. Mobility of labour allows producers to respond to the market for new products and services or to adopt and apply new technologies. A 2005 World Bank study in China found that moving 5% of labour out of agriculture is associated with a 3.3% increase in GDP, and moving 5% of rural labour to urban areas is associated with an average 2.5% increase in GDP. Gains are much higher if the reallocation of labour is to western and central regions compared to the eastern and northeastern regions.

Paci, Tiongson, Walewski, Liwinski, and Stoilkova (2007) illustrate how transfers of capital and of labour both serve as adjustment mechanisms when growth is concentrated in certain regions, and where governments intervene by redistributing tax revenues through its expenditure programs. Adjustments take the form of changes in the flow and wages of workers and flow of capital. How much of the adjustments will take the form of migration decisions of workers or location decisions of firms will depend on government policies (public services, the availability of land, cost of housing and transport) and, for the firms, on the technology they use, the source of raw materials, proximity to markets, and other economies of agglomeration. Governments seek to achieve balanced development throughout their territories but this is seldom attained because of the unbalanced distribution of natural resources like minerals and fertile soil, geographical characteristics that favour certain areas for harbours, as well as mistaken economic and social policies. Through the way it designs its tax policies and the priorities it sets for spending tax revenues, governments are increasingly playing the lead role in influencing decisions of workers and enterprises.

A World Bank study of internal migration in Central Europe and Baltic countries identified a number of areas where policy may be needed in order to enhance labour mobility (Paci et al., 2007). These are:

- Encouraging commuting (rather than migration) by reducing the transport costs of commuting in terms of money and time. This includes improvements in infrastructure (e.g., roads, railways), as well as enhanced efficiency of the market for transport services via a combination of private provision and public regulation.
- Improving availability of housing, especially rental housing, for workers on temporary contracts and their families.
- Investing in education and lifelong learning, which may facilitate the adjustment process because workers acquire the necessary skills to find jobs in more dynamic regions and move away from lagging parts of the country.

¹⁰ See also Harttgen and Klasen (2009).

- Enhancing the flexibility in labor markets by facilitating the flow of labor from lagging regions to booming regions by: (a) ensuring that workers have the skills required for the newly created jobs, and (b) lowering the monetary and time costs of commuting. For those left behind in lagging regions, a policy package designed to support job creation, encourage capital to move into the area, and enhance productivity is critical. Within the EU8 countries, policy measures designed to promote wage flexibility in local labor markets - such as through minimum wages differentiated by age or region, and decentralized wage bargaining systems - are a critical component of this package.
- Ensuring that social protection does not inhibit mobility. For example, generous unemployment and welfare benefits may serve to dampen labor mobility by reducing unemployed workers' incentives to look for employment and raising their reservation wages.

The long-term impact of migration on origin communities, especially when those who move out are usually younger, better educated, more skilled, and more enterprising members, has received scant attention in the literature. Emigration may starve origin communities of the very people needed to improve the local economy. Remittances from migrants will finance increased consumption levels, but would not necessarily lead to increasing productive capacity since this depends on human resources. If migration is to improve economic conditions in origin areas, remittances must do more than make up for the loss in productivity resulting from the departure of workers. Some must also go into investments in productive assets.

Greater Gains from Moving Across Borders

In this section, we draw insights from the results of studies on the direct impact of external or international migration on the main participants, namely the migrants themselves and their immediate families or households. We look at changes in earning capacities, apparent motivations for remitting money home, impact on consumption, investment in education, housing and health services, and how increased incomes affect the incentive to work for the other household members. Most of the evidence on migrants' earnings is based on studies undertaken in host countries on the performance of immigrants and their assimilation in the labour market. With respect to the impact on families left behind, most studies tend to lean heavily on measuring the impact of migrants' remittances, rather than simply of the act of migrating, because the relationship between the former and its outcomes are quantitatively easier to establish.

A few studies addressed the more general issue of how migration played a role in the survival of populations constantly challenged by a harsh environment. Ellis (1998) and Konseiga (2007) both studied migration's role in survival strategies of rural households in sub-Saharan Africa. Observing how sub-Saharan families developed a diverse portfolio of activities and social support capabilities to survive, Ellis (1998) used his study to argue for removing constraints to and expanding opportunities for diversification of livelihood means for the poor, including cross-border migration. Konseiga (2007) found from studying migration from Burkina Faso to Cote d'Ivoire that households benefited from opportunities created by regional integration and free movement arrangements. One study in Bangladesh found evidence that migration provides the resources needed to raise farm productivity.

Mendola (2008) found that wealthier rural households that were able to engage in international migration were more likely than others to employ modern farming technology and raise output. Poorer households that were only able to engage in internal migration were unable to do the same and were stuck with low-productivity technology.

How much do people gain by moving across borders? Ortega (cited in UNDP, 2009) estimated that migrants who came from countries rated as having low HDI gained the most by moving to an OECD country (as much as US \$13,736 in annual income). As to be expected, those who moved from countries already rated high in HDI did not gain very much by moving (difference in annual income of only US \$2,480). The gain, on average, for those moving from a medium HDI country to an OECD country is about 4 times such as the migrant workers in the US. These comparisons will have to be interpreted with caution due to the fact that unobservable factors may be positively correlated with migration. Ortega used an estimation procedure that sought to make the subject populations more comparable.

The degree to which migrants are assimilated in host countries is usually based on how their incomes approximate the national average. There are already many surveys of the literature on the assimilation of migrants in most OECD countries (Borjas, 1993; Chiswick & Miller, 1992; Dustmann, 1997; Dustmann & Fabbri, 2005; Dustmann & von Soest, 2002). Studies on how permanent immigrants in the US and Canada fared in the labour market all tended to show that over time, after acquiring language skills and local knowledge, most become assimilated (see Aydemir & Sweetman, 2007; Card, DiNardo, & Estes, 1998; Walters, Phythian, & Anisef, 2007). As expected, education is a key aspect of integration and occupational mobility in the host country. For example, those who are highly skilled, such as Indian software engineers, immediately benefited from relocating, even with temporary visas to the US, where wages are more than 3 times what they received at home (Commander, Chanda, Kangasniemi, & Winters, 2008). What has received less attention is identifying which types of assimilation policies bring about faster convergence and how. Few assessments have been done, for instance, on the effectiveness of language training in improving job searches and earnings. In their study of immigrants in Sweden, Aslund and Rooth (2007) suggested that earnings assimilation depends on the economic conditions that immigrants face when entering the country. For the US and Canada, the evidence on this is still ambiguous (Chiswick & Miller, 1992).

How One Migrates Matters to Gains

In the US, Niimi and Ozden (2008) found significant under-placement of Central American migrants who had college educations in their home countries. For example, only 33% of college-educated migrants from Mexico ended up in high-skilled jobs in the US and 23% were in medium-skill jobs. This means that 44% of college-educated Mexicans work in unskilled jobs. Those from the Caribbean and South America were noticeably better placed. Matoo, Neagu, and Ozden (2005) found similar evidence of “under-utilisation” of migrants in other parts of the world and cited two possible reasons. One is the lower quality of tertiary education in some origin countries and the other is the way the migration becomes self-selective, depending on how it is organized. Those from Mexico and Central America were very likely selected by family members already in the US and migrated clandestinely; while those from the Caribbean and South America were very likely recruited by US employers or applied for immigration through regular channels.

Most contemporary labour migration in Asia and the Middle East is organized by private recruitment brokers or intermediaries. While many female domestic workers, especially from the Philippines, may be over-qualified for their jobs, a large majority of migrant workers are placed in jobs for which they have been trained (e.g., construction workers, seafarers, IT professionals, hotel and tourism workers, etc.). Workers are typically recruited for jobs abroad offering 3 to as much as 10 times higher wages than what they received at home, but most have to pay such huge fees to job-brokers and “sponsors” to get their jobs that it often takes anywhere from 3 to 10 months wages abroad to recover (Abella, 2004; Shah, 1996). Research in origin countries nevertheless shows that migrants’ households have done much better than non-migrants in economic terms. In the Philippines, Ducanes (2011) showed that households that were able to send a member abroad as a migrant worker climbed up from 6.9 to 8.8 percentage points in the per capita income ranking and from 4.5 to 5.9 percentage points in the per capita expenditure ranking. Migrating for employment evidently plays an important role in social mobility.

The International Labour Office (ILO) has been monitoring the treatment and conditions of employment of migrant workers around the world, especially those most vulnerable to exploitation and abusive treatment like female domestic helpers, construction labour, and plantation workers. A report prepared for the 2004 International Labour Conference concluded that migrant workers, especially those admitted as temporary workers, faced multiple disadvantages (ILO, 2004). Temporary workers have limited legal rights to equal treatment (e.g., wages, social security, right to organize). Some, like domestic service workers, are excluded from the protective cover of labour laws. Most can find employment only in sectors where wages are squeezed because producers are at the highly competitive end of global production chains.

How are Families Affected by Migration?

While the psychosocial effects of migration on migrants and the families they leave behind are just as real as the financial rewards, there has been much less research on the subject (Hugo, 2002; Yeoh & Lam, 2006). The few studies that have been undertaken focused on the possible negative impacts on the education of children and their performance in school. The assumption is that there are two countervailing effects of migration: one is positive, since increased income means relaxing any budget constraints on spending for schooling; the other is negative because the absence of a parent means less supervision and pressure to keep up with school work and more responsibility for housework. The evidence is mixed and suggests that effects are context specific. Examining the issue in rural Pakistan, Mansuri (2006) found that children in migrant households were not only more likely to attend school, but they were also more likely to stay in school and accumulate more years of schooling in comparison to their counterparts in non-migrant households in the same village. They were also less likely to be involved in economic work. Moreover, the educational gain from migration was also larger for girls than for boys. Similar positive effects of remittances on educational spending, and thus schooling, was found by Deshingkar and Akter (2009) in India, Kuhn (2006) in Bangladesh, Cox-Edwards and Ureta (2003) in El Salvador, Calero, Bedi and Sparrow (2008) in Ecuador, Hanson and Woodruff (2003) and Lopez-Cordova (2005) in Mexico, and Lu and Treiman (2007) in South Africa.

However, McKenzie and Rapoport (2006) found a negative effect of migration on school attendance and attainment among 16 to 18-year-old girls in rural Mexico due to increased housework. Living in a migrant household also lowered the probability of younger boys completing junior middle school and of older boys completing high school. They attributed the latter to the prospect of migration to the US. Since the returns to an illegal immigrant are very low, few are motivated to pursue further studies. This confirmed the findings of an earlier study by Kandel and Kap (2001) in Mexico. In Albania, a study by Giannelli and Mangiavacchi (2010) evaluated the effect of parental migration and found that it has a disruptive effect on school attendance and is correlated with higher risk of becoming a school drop-out. Increasing poverty has forced many men to emigrate for work such that between 1990 and 2005 more than 1 out of every 5 children under 18 years of age have been left behind. A similar negative effect was noted in rural China by Xuefei Wang (2011), which was especially strong among boys.

Some societies appear to adjust better to the contingencies imposed by emigration. The Philippines has experienced very large outflows of contract workers over the past three decades and, in recent years, more than half of departing migrants are women. In spite of the feared disruptive effects of parental absence on children, studies have found no evidence of negative impact, at least on their education. Children in migrant households had higher levels of enrolment and lower dropout rates and girls were able to improve their school performance (Parreñas, 2005). Battistella and Gastardo-Conaco (1998) found a positive relationship between being in a migrant household and academic performance. Yang (2006) found that migration and remittances led to an increased probability of school attendance and reduced child labour. Bryant (2005) found that remittances enabled migrant children to attend private schools, which were better than public schools. The existence of extended families (i.e., grandmothers or aunts who are usually filling in for the absent parent) was credited with this more positive experience.

Impact of Remittances on Family Welfare

The earliest literature on migration assumed that mutual caring is the prime motivation for remittances sent home. Money is sent home to improve the family's welfare in its various dimensions - more and better food, longer schooling of children and other family members, housing improvements, more leisure time, and so on. Money is also sent home as a way to protect the family against natural (drought or typhoons) or financial (drop in price crops, loss of employment, illness) shocks. Hence, migration has always been seen as an essential part of family survival strategies and remittances are its principal manifestation. More recently attention has also focused on other possible motivations behind remittances, including paying back previous investment of the family in the migrant's education, compensating for the services of family members who take care of migrant's children left behind, or self-serving ones, such as insuring that one maintains entitlement to inheriting family assets. Other studies have looked at how remittances may be aimed at investments to provide income or self-employment upon return.

Much of academic interest in remittances, especially among economists, has been in testing one or more hypotheses about the strength of these possible motivations. The assumption usually made is that from patterns of remitting (levels, regularity, etc.) one can discern the motivation of the remitter. Do households with lower domestically sourced incomes receive more remittances than those with higher incomes? Are remittances countercyclical, rising when domestic incomes drop and declining when incomes rise? Do remittances decrease where there are other remitting members from the same

household? In the face of volatility in agricultural incomes and idiosyncratic risks, are migration and remittances a means to stabilise levels of family consumption? Does the timing of remittance depend on the migrant's time-discount factor and earnings profile abroad?¹¹ There are also various hypotheses on how remittance behaviour suggests the intention and timing of a migrant's return. Apart from what they reveal about the motivations behind remittances, these studies have been instructive in assembling considerable factual evidence on what happens to the conditions of migrants' families or households compared to those of non-migrants.

The general approach to testing these hypotheses is to estimate remittance functions and from there look for explanations for differences in remittance behaviour, the probability of remitting, and the level of remittances. For example, in his study of remittances sent to Nicaragua and El Salvador, Funkhouser (1995) noted that, while the number of migrants and the general economic conditions in the two countries were very similar, twice as many households received remittances from relatives abroad in San Salvador than in Managua. Moreover, for those who received remittances, the average transfer received in San Salvador was twice as high as in Managua. He found that these differences could not be accounted for by differences in households or migrants' observed characteristics (age, education, gender, years since migration). It was only after he estimated remittance functions that he could find explanations for the differences in remittance behaviour. His theoretical model treated as separate the decision to migrate and the decision to remit. Unobserved variables in the decision to remit (i.e., educated Salvadorians were more likely to return compared to Nicaraguans) may explain the difference.

Empirical studies of remittances are, however, dogged by many methodological and data problems that undermine their contribution to building our knowledge. For example, remittances combine several components - altruism, repayment-of-loans, insurance, inheritance, and exchange of a variety of services - but, according to Rapoport and Docquier (2006), it is extremely difficult to empirically discriminate between them. Most studies regress remittances on a set of variables, but any sign of these relations may be interpreted in a number of ways and the additional information needed to implement more discriminate tests is rarely available in sufficient detail.

Remittances Affect Savings Behaviour

Nevertheless, some arguments and findings from studies of remittance behaviour provide useful insights into how savings behaviour of migrants may be affected. One study by Djajic and Milbourne (1988) found that the savings behaviour of temporary migrants would differ from that of permanent migrants and natives because their marginal utility of consumption is likely to be higher in their home country than in the host country or because economic conditions in the two countries are likely to differ in the future (Galor & Stark, 1990). Decisions of migrants about how much to save and when to return depend crucially on expectations about future income streams assuming one returns or opts to stay (Dustmann, 1997). Savings behaviour may also be influenced by the fact that interest rates are likely to differ between the origin and the host country (Karayalcin, 1994).

¹¹ Some researchers reason that frequent and regular remittances reflect altruistic motives (to smoothen the family's consumption), whereas less regularity means other motives such as for insurance (e.g., entitlement to inheritance) are stronger. Viewing migration as a contractual arrangement, Erfe (2007) hypothesized that wealthier families have greater bargaining power than poorer ones in pressuring the migrant member to remit more; hence, remittances may actually rise with the receiving household's wealth but may taper off over time.

The savings behaviour of remittance-receiving households is expected to differ depending on whether the higher income is considered to be transitory or permanent. In countries where households face substantial risks from climate variability or macroeconomic instability, one may hypothesise that households will use remittances to smooth out consumption. Ersado, Alwang, and Alderman (2000) studied at how households adapted to such risks in Zimbabwe, where poverty increased during the 1990s and vulnerability has grown, by looking at savings and consumption behaviour before and after shocks. They found that before droughts and structural adjustments, households treated remittances as transitory income and displayed a high propensity to save out of it. However, they consumed the majority of both permanent and transitory income in the period following these shocks. The authors concluded that prolonged periods of drought and instability have led to limiting the ability of households to mitigate risks.

Do Higher Incomes Reduce Participation in the Workforce?

Do remittances have a disincentive effect on labour force participation? In other words, do they take members of recipient households out of the labour market? We have already seen that studies in Pakistan and elsewhere revealed that school-age children in migrant households were less likely to be involved in economic activity compared to those of non-migrant households. However, they do not seem to affect the labour force participation of working age members except the old. A study in Moldova by Görlich, Mahmoud, and Trebesch (2007) found weak evidence of disincentive effects: young and middle-aged members of migrant households are not more likely than those of non-migrant households to be unemployed and not looking for work. However, they noted a labour-substitution effect through which previously inactive members were more likely to be engaged in home production, and an education effect where more members are likely to be in university. The study did find that there was a small disincentive effect for older (51 to 64-years-old) household members of migrant households, an understandable consequence of migration. In the Philippines some researchers argued that remittances had the effect of raising reservation wages and lowering participation (Tullao, Cortez, & See, 2004), but participation was shown to, in fact, be higher if members still in school were excluded and the employment of the migrant was taken into account (Ducanes & Abella, 2008).

Because of the migrant's departure, there may be a temporary disruption of the household's economic activity. Hence, migration and remittances may have multiple and contradictory effects on household income. From a small, non-representative sample of rural households in China, Taylor and Rozelle (2003) examined the impact of internal migration and remittances on crop and household income. Controlling for endogeneity and selection, the authors found that when a migrant leaves a household, crop yields fall and crop income declines by about 33%, but the remittances sent home by the migrant have a positive, countervailing effect. Finding that each yuan in remittances is associated with 1.36 yuan of additional crop income, the authors concluded that farm households purchase additional inputs from remittances received and to substitute capital for labor.

Summary

There is evidence from research that gains, not only in earnings but also in education and health, are positive for those who move internally and more so for those with the resources to move internationally. In the case of the latter, accompanying risks, which depend on to which countries they go and how they

enter, lessens the gains. There is suspicion that migration has negative effects on migrants' families left behind, especially on children, but the few studies undertaken on the subject fail to confirm the suspicion. The children of rural to urban migrants who accompany their parents gain access to better health services. Children left behind by parents who go to work abroad appear to stay longer in school and obtain more education because remittances ease budget constraints. Studies show that migration plays an important role in family survival strategies because remittances shield them against all kinds of "shocks." Research findings on the savings behaviour of remittance receiving households are, however, less definitive. It appears to depend on whether remittances are seen as transitory or permanent parts of income.

Macro Impacts of Migration

For many developing countries, migrants' remittances are the main source of foreign exchange and represent a substantial proportion of their GNP. The World Bank (2011) estimates that global remittances received by developing countries have already reached a total of US \$351 billion in 2011. Aside from offsetting balance of payments deficits, remittances may help reduce poverty directly by lifting many recipient households above the poverty line and indirectly through the effect of increased consumption or investments in the whole economy. Other indirect effects, such as easing capital constraints and reducing some investment risks associated with exchange rate instability, are cited in the literature. Moreover, remittances are now recognised as a more stable source of foreign exchange than private capital flows and have been noted to display an anti-cyclical character (Chami, Fullenkamp, & Jahjah, 2005; Gupta, 2005). One of the early studies on remittances and growth was carried out in Greece during the 1970s by Glytsos (1993), who estimated that a \$1 million increase in inflows raised the Greek GDP by US \$1.7 million.

Do Remittances Have A Significant Impact on Economic Growth?

The relationship between remittances and economic growth has been extremely difficult to prove and has spawned a lively debate among economists. One of the issues is the likelihood of two-way causality between remittances and growth. While remittances may stimulate growth, it is also often the case that low economic growth leads more people to emigrate. This leads to more inflows of remittances. According to an International Monetary Fund (IMF) team that recently investigated the issue and reviewed the methods and findings of previous studies, there is still no agreement on how to resolve the problem of endogeneity (see Barajas, Chami, Fullenkamp, Gapen, & Montiel, 2009). The complexities involved are many, ranging from the fact that growth of the remittance receiving country is affected by factors such as trade with the migration destination country, to problems with specifying appropriate instrumental variables and control variables, to questions about the reliability of remittance data. Earlier studies, some by the World Bank and others by independent scholars, arrived at different conclusions: some research finding a positive but small impact of remittances on growth, others finding a negative but small impact, and still others finding the link ambiguous. Ziesemer (2006) found, for example, that remittances have a higher impact in countries with per capita incomes below \$1,200. Some studies did attempt to identify the conditions that may contribute to a positive impact, such as high levels of educational attainment, existence of high-quality institutions, depth of the financial market, and price stability. The level of financial development appears to matter according to several recent studies (Ramirez & Sharma, n.d.; Giuliano & Ruiz-Arranz, 2009; Rioja & Valev, 2004). Remittances have a

positive impact on growth in financially less developed economies but not in others possibly because, as one study hypothesised, they act as substitutes for the financial sector in the former (see Barajas et al., 2009).

Remittance inflows can enhance capital accumulation in a number of ways. An obvious one is by helping create domestic macroeconomic stability. Chami, Hakura, and Montiel (2009) showed that large remittances are associated with lower output volatility. As a result stability firms would demand lower risk premium in undertaking investments. Another way is the direct effect of remittances on easing liquidity constraints to greater investments in human or physical capital. And a third way is by enabling a remittance receiving country to leverage future inflows effectively serving as collateral. The guarantee of adequate future flows to service debts will reduce the cost of borrowing, quite apart from the direct impact on easing liquidity.

Stronger Evidence that Remittances Raise Overall Savings Rates

If remittances mainly increased the incomes of poorer households in the origin country, the expectation is that the impact on national savings rates would be minimal since the poor consume most additional income. This would be all the more true if remittance income was not seen as transitory but permanent. Studies, however, have shown that significant proportions of remittance income were saved. In Pakistan during the 1980s and early 1990s, Adams (2002)¹² suspected that recipients viewed remittances as uncertain in nature, and thus saved more of them for future contingencies. He found that the marginal propensity to save out of international remittances was about 0.71 compared to a much lower 0.085 propensity to save out of rental income. However, in his study in Ghana, he found that recipients treated remittances as fungible, or the same as income from any other source. In Moldova, perhaps the poorest country in Europe, where about 1.4 million people out of a total population of 3.4 million belong to households that receive remittances, the marginal propensity to save rises with the significance or share of remittances in the total household budget (Mislitcaia, 2009).¹³ In Nepal, another low-income country, Giri (2008) also found a high propensity to save among remittance receiving households. She worked with cross-sectional data from the Living Standards Survey and adjusted her data on remittances for informal transfers. She estimated that for every rupee transferred by Nepali migrants in India to their families at home, the household saved between 0.18 to 0.29 rupees. The income elasticity of savings is large - for every 1% rise in remittances there is a 0.36% rise in savings.

Remittances Raise Many Out of Poverty, But Does It Reduce Inequality?

What about the impact on inequality and poverty? Page and Adams (2003) undertook one of the first significant investigations of the subject by looking at the experience of 74 developing countries. They concluded that remittances reduced the level, depth, and severity of poverty in developing countries. On average, a 10% increase in the share of international remittances in a country's GDP led to a 1.6% decline in the share of people living in poverty. Some studies reached more nuanced conclusions that there can be very big differences in the impact of remittances on poverty depending on the country's initial

¹² Evidence that the propensity to save remittance income differs from other income sources is also offered by Davies, Easaw, and Ghoshray (2007).

¹³ This rather surprising finding is probably due to the fact that the households receiving remittances are the richer ones.

conditions. Acosta, Calderón, Fajnzylber, & López (2008) investigated the question of whether remittances reduced poverty in Latin America. They found that remittances reduced poverty head counts in 6 of the 11 countries for which data were available. No such effect was found for the Dominican Republic, Mexico, Nicaragua, Paraguay, and Peru. They did reduce poverty gaps in Ecuador, Guatemala, and Haiti. The study quantified the average impact of remittances on poverty: a 1-percentage point increase in remittances to GDP ratio reduces moderate poverty by 0.37% and extreme poverty by 0.29%. The study also examined the impact on inequality through a counterfactual by estimating what the Gini coefficients would have been had no migration taken place. Acosta et al. (2008) concluded that migration reduced inequality. In the absence of migration, the coefficients would have been much higher; for example in Haiti (7.7% difference), Guatemala (2.9% difference), and El Salvador (2.1% difference). Surprisingly, the study found that remittances added to inequality in Mexico and the Dominican Republic. Equally surprising is that the largest inequality and poverty-reducing effects are not necessarily where the lowest income groups receive remittances.

Where remittances are likely to have a big impact on poverty and inequality is in the Philippines, one of the highest remittance receiving countries in the world with an estimated US \$20 billion in 2011. A recent study by Ducanes (2011) used a fixed effects regression model with varying specifications and a sample panel of some 8,000 households constructed from three linked sources - annual income and expenditure surveys, annual poverty surveys, and labour force surveys from 2006 to 2008 - to test for the impact of remittances on poverty, inequality, and labour supply. He found that households that were able to send a member overseas for work had 2 to 3-fold greater odds of climbing out of poverty (based on per capita income) compared to other households. The odds get close to 6-fold greater when using logit analysis on pooled data. With respect to reducing inequality, Ducanes (2011) found that had it not been for overseas migration in the period between 2007 and 2008 inequality would have risen in 2008.

Emigration Causes Complex Adjustments in the Labour Market

Emigration reduces the domestic labour force while, as we have noted in the previous section, remittances may have the added effect of reducing the migrant household's supply of labour. The latter can happen because the younger household members may now be freed from income-earning activities to pursue further studies, may substitute work in home-production, or may prefer to stay out of the workforce because higher incomes tend to push up their "reservation wages." Whether or not the size of overall drop in the labour force is large enough to affect macroeconomic growth is a relevant question. Since, in most origin countries, it is high unemployment that drives people to emigrate in the first place, it may be safe to assume that the overall supply of labour will be unlikely to constrain growth. In Honduras, a developing country with high unemployment, Gagnon (2011) used cross sectional data to estimate the impact of a 10% increase in emigration on wages. It was found that wages also increased by 10%, but the effect diminished over time. In his study of the impact on Lithuania, a small country that experienced a large outflow of workers after joining the European Union, Elsner (2010) found that emigration led to a change in the wage distribution between young and old workers. The wages of young workers increased by 6%, whereas the wages of old workers decreased by around 1%. Unmarried men saw their real wages increase on average by 1.4% for every percentage point increase in the emigration rate; while for married men, this effect was close to zero.

The impact of migration on the labour market is seldom straightforward and can only be assessed over a period long enough for other adjustments to take place. Where the emigrating workers are unskilled, or leave only for temporary contract employment abroad, the adverse impact is likely to be slight. The skills involved are, however, likely to be heterogeneous, often involving the two ends of the skills spectrum - many at the bottom and many at the top. Some of the skills are hard to replace because possibilities for substitution are limited. The existence of labour surplus is, therefore, not a guarantee that emigration will not create shortages. At the same time, a rise in wages for occupations in demand abroad may trigger a supply-response that rebounds to the benefit of the origin society. The Philippines, for example, has lost a very large number of medical professionals to emigration, but the ratio of remaining doctors and nurses to the population remains equal to those in developed countries because many more young people invested in acquiring medical education (Katselli, Lucas, & Xenogiani, 2006).

From a number of studies commissioned by the Development Centre of OECD, O'Connor and Farsakh (1996) concluded that the effects of emigration on real wages at the national level were small in most countries. The impact may be concentrated in certain sectors, such as in construction. In Pakistan, wages in the construction sector rose by 41% between 1978 and 1983, a period of booming migration to the Gulf States, while real wages nationwide increased by only 25% (Knerr, 1996). Emigration may however have a "knock-on" effect by stimulating internal migration. In Kerala, the outflow of migrants to the Gulf stimulated in-migration from neighboring regions to replace those who left. Finally, wage structures reflected in differentials between skilled and low-skilled occupations may not escape the influence of emigration. Rodriguez and Horton (1996) suggested that this might have happened in the Philippines, while the opposite may have happened in Sri Lanka because of the migration of domestic service workers.

Brain Drain and Development

A very early topic in the literature on international migration is the impact of the so-called brain drain on developing countries. The subject has gained greater cogency because of technological and demographic developments, which put a premium on higher education and intensified the global competition for talents and skills.¹⁴ Over the 1990s, annual admissions of skilled immigrants to the US grew 14.6 times, while to the UK by 10 times. The International Organization for Migration reported that every year about 20,000 professionals leave Africa to take up employment in industrialized countries (La Bonte et al., 2006). In theory, the loss of highly-skilled workers, especially scientists and engineers, through emigration can undermine the capacity of a developing country to increase productivity and competitiveness; thus, discouraging investments, frustrate improvements in education and health services for the population, and impose higher costs for goods and services on those left behind.

Some economists consider this loss in potential growth effects of externalities from education as one of the reasons for the slow rise in total factor productivity (TFP) in poor countries. Recent research has, however, opened up a lively debate on the actual impact of high skilled emigration on development. Some have pointed to a "brain overflow" in some countries, as evidenced by high levels of unemployment among college graduates. The so-called "new economics of labour migration" has raised

¹⁴ The structural transformation from manufacturing to knowledge industries is a major factor driving the competition. See collection of articles in Kuptsch and Pang (2006).

the possibility that opportunities to emigrate induce greater investments in education at home to such an extent that the stock of highly educated left behind may be larger than before (Mountford, 1997; Stark & Wang, 2002). The search for empirical evidence has led to research in many countries but the findings have remained inconclusive. Beine, Docquier, and Rapaport (2001) found that the stock of human capital across countries is positively correlated with the overall rate of migration to the rich countries, but Faini (2006) and Lucas (2005) found that tertiary enrollment levels and increments to these levels are negatively correlated with rates of brain drain. The OECD Development Centre report (O'Connor & Farsakh, 1996) concluded that the true situation probably varies from country to country. Where there are well-developed educational institutions, such as in India, the emigration of many professionals like information and technology (IT) specialists has not constrained growth. In fact, migration and return migration has helped in the development of new industries and with exports.

Summary

This section brought together the key findings of research on the consequences of migration and remittances on the development of origin countries. Many economists have grappled with the complexities involved in designing models that can show how remittances affect growth given the number of possible variables that can affect it, and because the causation can go both ways. While there is less disagreement among policy makers on migration's positive and significant contribution to growth and development, the stylized facts coming out of studies only show a weak positive impact on growth and one contingent on various conditions. Much depends on whether remittances raise rates of savings. Here, some studies offer micro-level evidence of increasing propensities to save among migrant households. There is much more agreement that remittances help reduce poverty, although the impact on income distribution is more ambiguous. Since migration to other countries usually requires considerable resources, many migrants originate from better-off households and thus more remittances go to richer rather than poorer households. The consequences on the labour market are equally complex since migration involves a large variety of skills and occupations, and elasticity of labour supplies are not everywhere the same. Where migration reduces the human capital stock (brain drain), there can be serious adverse consequences for development. However, some studies already provide evidence that the labour market in developing countries adjust to such losses in unexpected ways. Changes in relative wages due to emigration of highly skilled workers tend to motivate greater investments in acquiring skills that are in demand abroad; but since only a few manage to leave their origin countries, the country ends up in a more favourable position.

Assessment of Migration Costs and Benefits

Migration is a form of labour market adjustment in response to a constantly changing economic environment that helps to re-allocate labour to sectors and regions where it can be more productive and earn higher wages and, in the process, enable capital to earn higher rates of return. Except where labour is involuntarily moved or "forced," it is likely that the migrant has weighed the personal costs and benefits and decided that, on balance, he or she gains from moving. Indeed, the literature on migration provides ample evidence that the principal gainers from migration are the migrants themselves. The question whether or not the origin or destination community or country gains from migration is much more controversial and remains the subject of continuing debate.

Migration Has Positive and Negative “Externalities”

What complicates the analysis is the fact that there are externalities involved. Education, for example, benefits not only the student, but also the community where she lives. What communities pay for education already takes these externalities into account.¹⁵ In contrast, what the individual pays for education usually greatly understates the full social cost of education. When the student emigrates, she carries the benefits with her. However, if she stays and works, say as a medical doctor, there are social benefits not sufficiently reflected in her salary. Her working at home may have “positive externalities” on her colleagues (i.e., sharing knowledge) and the whole community is better off (i.e., improved public health). All of these raise a number of questions. What would be the value of benefits foregone if she moves to another community or another country, either temporarily or permanently? Since much of this will be future benefit, what would be the appropriate rate of interest to use in assessing its present value? On the other side of the equation are the possible “positive externalities” of migration. If she earns more outside and remits money home, others in the community may benefit more from her absence (i.e., house builders) and if she returns with more skills or enterprising ideas, there will be positive “spillovers” to the whole community.

We need an analytical framework for addressing these complex questions. In his 2007 survey of the literature, Robinson (2007) makes a useful distinction between the “universalist” and the “nationalist” frameworks for analyzing the costs and benefits of migration. The “universalist” framework is the neo-classical competitive model, developed in Chicago by the famous Canadian economist, Prof. Harry Johnson (1965), which assumed that the free movement of human capital is welfare improving since it reflects efficient allocation of labour. It is possible that some may lose, but the gains will be enough to compensate them, say for example through foreign aid. Grubel and Scott (1966) recognized possible negative externalities affecting the welfare of those left behind, but assumed that under competitive conditions, and with possibilities for technology transfers, migration may still benefit all. Bhagwati and Hamada (1974) articulated more forcefully the nationalist framework by using a general equilibrium model to show that the emigration of the highly skilled, especially those who benefited from publicly subsidized education, amounts to transfers of real resources from poor to rich countries. This was the basis for his proposal for compensating origin countries for brain drain through a head tax.

Measuring the Costs of Losing the Highly Educated

Although the issue has generated a lot of debate, there has been a disappointing lack of empirical work showing quantitative estimates of the costs and benefits of the migration of the highly skilled. Much of the discussion remained at the highly theoretical level, such as those of Stark, Helmenstein, and Prskawetz (1997) and Mountford (1997), but empirical investigations were later pursued by the World Bank (Ozden & Schiff, 2006). Beine et al. (2001) used a database developed by Docquier and Marfouk (2004) with data on 190 countries from the year 2000 and 170 countries from 1990 to quantify some of the positive externalities of migration by estimating emigration rates among the highly educated and relating these to how much more was invested in education. Their study showed that emigration of

¹⁵ If people can easily move from one community to another, public spending for education may become sub-optimal from a national standpoint since each community will decide to spend less. See theories on “public goods” and “club goods” for implications on fiscal policy.

people with high levels of education induced greater investment in human capital in the origin countries. A 10% increase in the migration of the highly skilled was estimated to cause a 5% increase in the proportion of the highly skilled within the non-migrant population.

Robinson (2007) cited two studies in Africa that illustrate the difficulties in doing a social accounting of investments in education when people migrate. Kirigia, Gbary, Muthuri, Nyoni, and Seddoh (2006) estimated that the total cost of educating and training a physician (or a nurse) in Kenya from primary school to university (or nursing college) and how much society loses in “returns” on these training investments. Muula, Panulo, and Maseko (2006) made similar estimates on what Malawi would lose from the emigration of a nurse-midwife with a degree, including interest on the investment for 30 years. The estimates raise difficult questions. What educational investments should be included? Should it be from primary school? Is the actual budget for education a proper measure of the cost or should one take into account other possible uses of the funds (i.e., some measure of opportunity cost)? How should the returns on training be valued? Should it be based on the present salaries of medical practitioners in the country? How does one put a value to the remittances sent home? Robinson (2007) adds another externality, namely the intensity of the pressures migration puts on those workers remaining at home. Absolute numbers of emigration do not take such pressures into account, which are important to a comparative analysis of brain drain internationally, regionally, and sub-regionally.

Notwithstanding these conceptual issues, there is general agreement that the emigration of educated professionals imposes a heavy cost on poor countries. In Africa, there is a special concern about brain drain because of an already small supply of educated professionals, especially medical personnel. The United Nations Commission for Trade and Development has estimated that each professional leaving Africa costs the continent US \$84,000, or US \$4 billion a year – one-third of official development funds to (United Nations Conference on Trade and Development [UNCTAD], 2012). The assumed benefit from migration as a motivation for more investment in medical education does not seem to have been reaped so far. Against the WHO minimum standard ratio of 2.28 health personnel for every 100,000 population, Robinson (2007) reported that none of the 16 East and Southern African (ESA) countries met the standard in the case of physicians, and only five (Botswana, Mauritius, Namibia, South Africa, and Swaziland) appear to meet the WHO standard in the case of nurses. The cause is not migration alone since in some countries (e.g., Malawi) the main cause of health worker shortages is not migration but deaths, mainly from HIV and AIDS.

Estimating the Fiscal Impact of Brain Drain

Desai, Kapur, and McHale (2001) evaluated the fiscal impact of the brain drain caused by the dramatic rise in emigration of Indian professionals to the US during the 1990s. In order to approximate the lost taxes, they estimated how much the emigrants would have earned in India had they stayed and then estimated the fiscal impacts this represented. In order to arrive at estimates of the counterfactual earnings, they adopted two methods: one is a translation of actual US incomes into purchasing power parity terms; and the other is an income simulation based on a jointly estimated model of Indian earnings and participation in the workforce. They found that Indians in the US had a median income 16% higher than the median income of the native born. Indians in the US represented only 0.1% of the population of India, but had an aggregate income that is 10% of the Indian national income. Given their characteristics, these Indians would have been substantial net contributors to the Indian tax base had

they not emigrated. Their absence thus imposes a fiscal burden of higher taxes and lower spending on those left behind. Foregone income tax revenues were estimated to be as much as one-third of current individual income tax receipts in India. The estimated net fiscal loss ranges from 0.24 to 0.58% of India's GDP in 2001, depending on the method for estimating expenditures saved by the absence of the emigrants.

In one of the most ambitious attempts to determine the costs and benefits of highly skilled migration, Gibson and McKenzie (2010) chose five countries that were experiencing very high rates of high-skilled emigration (Tonga, the Federated States of Micronesia, Papua New Guinea, Ghana, and New Zealand). They obtained information through a survey of individuals who were top academic performers in the country at the time of their high school graduation and tracked them. This involved collecting data on individuals living in 45 different countries and asking them detailed questions about their migration and educational histories. The authors then used data obtained through another survey of academically similar non-migrants and return migrants to form counterfactuals for what the migrants would be doing at home had they not left. They were able to measure and quantify a number of the key economic effects of high-skilled emigration. The largest impact was on gains in income (\$40,000 to \$75,000 per year). They sent annual remittances ranging from \$2,000 to \$7,000. However, their impact on trade and foreign direct investment were insignificant (with most of similar gross value to remittances). Assuming no one avoids paying taxes, the authors estimated annual fiscal impacts, which varied by country: a net loss of at most \$1,000 for Tonga and Micronesia, \$6,000 for Ghana, \$10,000 for New Zealand, and \$17,000 for Papua New Guinea.¹⁶ They also found migration led to large increases in human capital among migrants, but there was little evidence of net knowledge transfers to home governments or businesses. Possible negative externalities from the absence of these individuals were considered small, relative to the magnitude of the benefits from emigration.

Do Investments Follow from Migration?

There are many claims about benefits of increased flows of foreign direct investments (FDI) to origin countries, but most are anecdotal. Migrants living in rich countries are supposed to serve as bridges for investors since they understand their countries of origin and can negotiate the often difficult bureaucratic processes better than others. Among the limited empirical work is a study by Gheasi, Nijkamp, and Rietveld (2010), who investigated the relationship between the stock of foreign population by nationality living in the UK and the bilateral volume of FDI, both into the UK (from 22 countries) and out of the UK (to 27 countries) between 2001 to 2007. They found a significant and positive relationship between FDI flows from the UK to a particular country and the presence of migrants from that country. Using an instrumental variable approach, they tested if the education level of migrants living in the UK made any difference. They found that the more educated migrants from a certain country are, the stronger positive effect they have on FDI in both directions (inward and outward).

¹⁶ In Papua New Guinea, per capita government expenditure is extremely low and income tax rates on high incomes are quite high – so the fiscal cost greatly exceeds the fiscal benefits. Because of New Zealand's highly progressive government spending patterns, each household in the top three deciles was estimated to have received approximately \$6,700. Health and education spending was \$11,302 per household.

Remittances and the “Dutch Disease”

There are also many claims that migration helps in increasing trade between origin and destination countries, but these have largely been associated with the exports of so-called “nostalgia” goods (Orozco, 2008). Much more significant is the suspected impact of remittances on overvaluation of the origin country’s currency: the so-called “Dutch disease” effect. Overvaluation of currency causes its commodities and services to become more expensive in export markets. In their study of 13 Latin American and Caribbean countries, Amuedo -Dorantes and Pozo (2004) found that a 100% rise in remittances caused the real exchange rate to appreciate by 22%. Similarly, Bourdet and Falck (2006) found evidence of adverse effects of remittances and official development assistance on Cape Verde's competitiveness. Makhoul and Mughal (2011) looked for symptoms of Dutch disease arising from international remittances in the Pakistani economy. They argued that remittances caused an appreciation of the real exchange rate and loss of competitiveness of the exports sector. Surprisingly, they also noted that, while aggregate remittances and remittances from Persian Gulf and Europe contribute to the Dutch disease in Pakistan, those from North America do not.

Summary

This section examined the possible spill over effects or externalities of migration and remittances and their effects on development in origin communities. There is wide agreement among researchers that these externalities are substantial but quantifying them brings up all sorts of conceptual and methodological issues. How much do origin communities lose in terms of better health when a medical doctor leaves? What is the added fiscal burden on those who stay if those who leave no longer have to pay taxes? Although there is consensus that “brain drain” is a relevant development issue, especially among some of the world’s poorest countries, there is less agreement that restricting migration, even if it is feasible to do, is the solution. Moreover, migration may have positive spill over effects on stimulating reverse flows of investments and increased trade, although these issues still need more attention from researchers.

Role of Diaspora in Development of Home Countries

Although migration has a very long history of serving as a channel for transferring knowledge, beliefs, and new technologies, it was only recently that the role of migrant or diaspora communities abroad received much attention in the discourse on development. In this section, we review the literature on this emerging role of organized communities abroad as sources of capital, aid, and know-how.

In a study for the United States Agency for International Development (USAID), Johnson and Sedaca (2004) surveyed how émigré and diaspora communities serve as an important source of foreign direct investment, trade linkages, knowledge, and technology transfer. They found that, aside from philanthropic activities, diasporas have also been prominent in a variety of activities, with important developmental impacts on their countries of origin. Examples include:

- Channeling investment and outsourcing opportunities toward their country of origin, which helped to incubate the development of high-tech sectors.

- Diaspora entrepreneurs acting as “first movers,” who moved early into a promising or struggling sector in their country of origin, creating momentum that catalyzed growth in industries that may otherwise be unable to attract sufficient conventional foreign direct investment.
- Diaspora portfolio investors in private investment vehicles and sovereign bonds who inject vital capital and budgetary resources for private sector expansion and development of economic infrastructures.
- Web-based diaspora of intellectual networks facilitating the transfer of knowledge from professionals abroad back to the homeland.

Creating Business Networks

The report mentions several examples of how networking among business diasporas played an important part in promoting investments in some countries. For example, the Lebanese Business Network (LBN, 2013) operates an online marketplace; business matching and industry information database; identifies opportunities; and creates links between Lebanese entrepreneurs, business diaspora, and international businesses. ArmenTech, established in 2000 by a group of Armenian-American high-tech entrepreneurs and executives, is helping to transform Yerevan into a high tech hub in the same way the Indian diaspora has brought IT business to Bangalore. It launched *SiliconArmenia.com*, an online medium designed to promote Armenia’s technology sector through increased exposure to international markets and prospective customers, partners, and investors. The South African Diaspora Network (SADN), launched in 2001, focuses on two main groups of business contacts – high potential South African based businesses that wish to expand into international markets and well placed and highly connected South African expatriates living in the greater London area expressing a willingness to assist South African based businesses (World Bank, 2013). The Silicon Valley Indian Professional Association (SIPA) served, since its founding in 1987, as a bridge to India where it promotes networking with visiting business professionals (Newland & Tanaka, 2010). Currently, SIPA consists of over 2,300 members who are highly qualified engineers, corporate managers, legal and financial experts, business people, and other professionals. Most of them are actively involved in the high-technology industry and hail from almost every major company in Silicon Valley.

Bringing New Ideas and Business Model

The role played by Indian and Chinese diaspora in developing new industries in their origin countries has been well documented in the literature. A major study by Saxenian, Motoyama, and Quan (2002)¹⁷ found that immigrant entrepreneurs in Silicon Valley are transferring elements of the Silicon Valley business model to their native countries and in the process “... are seeding new centers of entrepreneurship and technology growth in formerly peripheral regions of the world economy” (p. 38). Half of Silicon Valley’s foreign-born entrepreneurs who responded to their survey have set up subsidiaries, joint ventures, subcontracting, or other business operations in their native countries—and

¹⁷ The study is based on responses of over 2,700 individuals to a survey of members from 17 immigrant professional associations in Silicon Valley.

most of the other half indicated they are considering establishing such operations in the future. The Indian software industry grew 40% a year in the 1990s (Kuznetsov & Sabel, 2006), with the number of software firms more than quadrupling from 700 to more than 2,800. This growth was credited to government policy with regard to higher education and to Indian executives of US-based industry, which gave their companies the confidence to outsource in India.

Even more impressive was the role played by overseas Chinese in the economic transformation of Taiwan and in China. Taiwan has emerged as a major global player in the development of computer hardware and software thanks to the know-how and capital brought back by Taiwan-born professionals in the US. In the case of China, it was estimated that about 70% of foreign direct investments that flowed to the country after the reforms came from overseas Chinese. In tandem with these investments, numerous overseas Chinese professionals associations all over the US and other parts of the world were actively engaged by the Chinese Government in knowledge exchange (Biao, 2006; Kapur, 2001; Saxenian et al., 2002).

Diasporas as Lenders

Diaspora communities have likewise become an important market for borrowing from their origin governments, especially in the form of sovereign bonds. An example is the Resurgent India Bond (RIB), which the government has sponsored in the late 1980s through Indian banks acting in fiduciary capacity to non-resident Indians (NRIs). Some \$4.2 billion of these bonds were sold to NRIs and used for infrastructure development. In 2000, another sovereign bond, the India Millennium Deposits (IMD), was floated and raised \$5.4 billion from the diaspora (Johnson & Sedaca, 2004). Non-market factors evidently played a role in the emergence of the diaspora as the major investors in these bonds.¹⁸

Large countries are more likely to benefit from the diaspora, but as Lodigiana (2008) points out, size is just one factor. The education and skills in diaspora communities are clearly important and these are associated with higher incomes. It also matters if they are concentrated in certain economic sectors and whether they are in new industries or mature industries. The income and more importantly, the technological gap between the host and the destination country are crucial. As Kapur (2001) points out, an immigrant from Ghana to the US is likely to have different effects, than an immigrant from the same country to Nigeria. The overall conditions in the home country, especially the level of democracy and governance, are key factors determining the propensity of the migrant to contribute to development.

“Hometown Associations” Funding Community Projects

Another way that diaspora communities have contributed to the development of their origin countries is through the activities of “hometown associations.” There are many examples of such hometown associations, especially among Latin Americans in the US, Moroccans in France, Ghanaians in the UK, and many others. Mexican hometown associations have received a lot of attention from sociologists and other scholars. Originally organized to facilitate remittances among senders from the same places or towns of origin in Mexico, these hometown associations (HTAs) developed spontaneously over time to

¹⁸ There are an estimated 20 million people of Indian origin living in 70 countries. Their combined earnings were once estimated to equal about two-thirds of the GDP of India. In the UK alone, it is reported that there are at least 60,000 doctors of Indian origin (see Pandey Aggarwal, Devane, & Kuznetsov, 2006).

fulfill other functions, from social exchange to philanthropy to political influence. In 2003, there were 2,000 such hometown associations organized by Mexican migrants in the US. Orozco and Lapointe (2004) evaluated their organizational nature, long-term durability, and impact on development in rural Mexico, especially their partnership schemes with three levels of government known popularly as *tres por uno*. Many of these HTAs have raised funds to embark on modest projects (on average under \$10,000 a year for projects such as building and paving roads, extending services such as electricity, sewage treatment, and health care to the entire community). HTAs are increasingly linking with mayors and other local government officials in planning and executing these projects, which are significant for many small communities. The Mexican federal government inserted itself into the partnerships through a range of formal and informal relationships that culminated with the Citizen Initiative program, a matching-grant program also known as *Iniciativa Ciudadana 3x1*. In 2002, Orozco and Lapointe (2004) estimated that Mexican HTAs had donated \$30 million for projects they judged to be of great value to isolated, vulnerable communities with under-served populations. Moreover, construction of basic infrastructure employs local labor.

Transferring Technology and Creating Knowledge Networks

Aside from playing a role in establishing new industries in their countries of origin, some diasporas have also organized networks to promote the transfer of skills acquired abroad. One of the best known diaspora knowledge networks, South African Network of Skills Abroad (SANSa), connects skilled people living abroad in contributing to South Africa's economic and social development. The network has over 2,000 members in more than 57 countries, with expertise in hundreds of specializations active in a number of professional sectors, predominantly business and academia (Johnson & Sedaca, 2004). The individual profiles, including members' fields of interest and areas of specialization, are available through a database system that also includes information on research projects in natural sciences, engineering, technology, and health sciences, as well as information on research and professional associations and conferences. SANSa members assist South African graduate students get acceptance for training in laboratories, connect foreign researchers with South African counterparts, transfer technology to South African institutions, transmit information and results of research, facilitate business contacts, and initiate research and commercial projects.

A very similar effort was organized in 1999 by Moroccans living in southwestern France. The "Savoir et Développement (SD)" facilitates the transfer of scientific and technical know-how to Morocco. The organization built a database on Moroccan competencies abroad that focuses on very practical and concrete projects linking Moroccan scientists abroad with those working in Morocco (Bouoiyour, 2006). The aim is to assist Moroccan enterprises (especially small and medium-scale business) become more profitable through innovation. To accomplish this task, it creates networks of competencies in different fields or sectors, links small and big business, and establishes collaborative work with national research organizations. SD's approach is to develop synergies through the creation of multidisciplinary and multi-sectoral working groups, including business, research bodies, and universities to address common problems.

Political and Social Dimensions of Diaspora Influence

The Moroccan state compromised the support given to organizing activities of the Moroccan diaspora in Europe by opposing Moroccan descendants in Europe relinquishing Moroccan citizenship. The government sought to reinforce its links with Moroccan emigrants by establishing a ministry for Moroccans residing abroad, the Fondation Hassan II pour les Marocains Résidant à l'Étranger (FHII) (de Haas, 2006). FHII funded the establishment of Moroccan cultural centres in a few European cities and organized annual conferences in Morocco for diaspora leaders. At the same time, the government lifted earlier restrictions on foreign currency transactions and adopted tax policies favorable to emigrants. In recent years, "diaspora tourism" has taken on significant dimensions, with notable impact on the growth of travel, banking, construction, and related sectors.

The contribution of diasporas to the development of their origin countries has dimensions that go beyond the economic. Levitt (2001), for example, argued that migrants not only send money, but they also bring ideas, practices, identities, and social capital back to the communities from which they came, creating important catalysts for change. She calls these "social remittances," which she is quick to add may have both positive and negative consequences for development. The more positive social remittances include democratic values and respect for the rule of law, work ethics, know-how for building better organizations and more responsible governance, respect for gender equality, taste for new foods and art forms, and greater consciousness about health. Negative consequences include materialist values and consumerism, sexual permissiveness, links with criminal syndicates abroad, and so on. The impact of these "social remittances" on development is probably greatly underestimated because they are inherently difficult to assess.

Summary

In this section, we reviewed the literature on the role of organized communities abroad as sources of capital, aid, and know-how. This is an area that is starting to receive attention from policy-makers, but the information is still largely anecdotal. There is little doubt that migrants continue to maintain bonds with their origin communities long after they have settled in foreign countries, and there are many interesting examples of the role some played in creating new industries in origin countries when conditions improved. Cited are several examples of more organized efforts by diaspora communities to link with origin countries through the establishment of business and knowledge networks, especially using the Internet, and how "hometown associations" have emerged as important supporters of improvements in poor origin communities that are often underserved by their governments. Also cited are examples of efforts by origin governments to reach out to and maintain links with the diaspora, and to rely on them as sources of credit. Finally, this section drew attention to the role played by "social remittances," which may have positive as well as negative consequences for development.

Recommendations for Further Research

Our review of the contemporary literature on migration and development confirmed our initial assumption that there are many common issues with those faced in addressing the development of First Nations. In this final section, we bring out a number of these common issues and offer some suggestions on questions that could be the subject of future research. Wherever appropriate, we also draw attention to previous research that illustrates what may be helpful methodologies.

Patterns of Migration and Mobility Behaviour

Are patterns of migration totally predictable by looking at the usual instrumental variables like education and employment, or are there other exogenous variables that have so far escaped attention? Is it likely that unobserved variables like quality of health care in reserves or perceptions of “relative deprivation” have more power to explain migration behaviour? Can these variables be influenced by changes in policy or in governance? Research on such issues in Canada can benefit from longitudinal data offered by LAD, which Finnie (2001) and others profitably mined in developing their panel data. Taylor and Rozelle (2003) used relevant paradigms for examining the variables influencing migration (see also Deb and Papa, 2009).

Remittance Motivations and Behaviour

The decision to migrate is now widely recognised as a family decision; one usually taken as part of a family survival strategy to cope with environmental risks and financial shocks, as well as other contingencies. These are probably equally true of the migration patterns among First Nations, but there may also be other idiosyncratic variables that would be helpful to uncover. Is there wide variation in the degree to which families left behind depend on remittances from family members working outside? What characteristics or situation of families explain the differences? Are remittances flowing regularly or are they only sent when triggered by family contingencies? Are they meant for support of Elders? How much of remittances go to finance certain lumpy investments¹⁹ (i.e., housing)? How much of remittances take the form of goods rather than cash and why? The articles in the handbook edited by Kolm and Ythier (2006) offer examples of how these issues may be investigated empirically.

Social Costs and Benefits of Migration to Communities Left Behind

The inability of small communities to benefit from economies of agglomeration probably explains some of the developmental problems faced by First Nations. Emigration, especially of the better educated, can only worsen the situation. It will be instructive to clearly identify the negative externalities of temporary (even seasonal) and permanent emigration on origin communities and attempt to quantify them. How many professionals have been lost to the big cities? How has this migration affected the quality of local governance? What fiscal burden did their leaving impose on those left behind? In contrast, there are also benefits that need to be reckoned with, including the positive externalities from acquiring experience and know-how in cities. Studies, especially by Gibson and McKenzie (2010) and Desai et al. (2001), may be helpful in designing approaches and research methods.

Diaspora Networks

There are parallels to diaspora communities among First Nation migrants in large cities. How have the latter organized themselves for mutual help? Are there data bases already developed on various competencies among their members? What networks can be further developed to facilitate the transfer of ideas or models (business, social organisation, etc.)? Are there good examples of successful diaspora investments that can be used as models? Documenting these experiences and examples may be an important contribution to policy making.

¹⁹ Investments are lumpy when the investment project cannot be spread over time with small infusions of capital.

The Importance of “Social” Remittances to First Nations

Finally, we suggest looking at the wider impacts of migration that were put under the category of social remittances. What improvements in education, social organisation, health care, and governance can be traced to the influence of former migrants? Have there been clearly negative influences (such as loss of traditional values) with long-term adverse consequences on welfare and development.

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