



# Migration and Development: A Conceptual Review of the Evidence

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The development model adopted in the immense majority of labor-exporting American countries has not generated opportunities for growth nor economic or social development. On the contrary, it has meant the emergence of regressive dynamics: unemployment and job precarization; greater social inequalities; loss of qualified workers; productive disarticulation and stagnation; inflation and greater economic dependency. As a consequence, we experience a convergence between depopulation and the abandonment of productive activities in areas of high emigration.

CUERNAVACA DECLARATION, 2005

One important reason for the pessimism that characterizes most community studies is the lack of a good theoretical yardstick to measure the effects of migration on economic growth. Village studies universally confuse consumption with the non-productive use of remittances, ignoring the extensive and potentially large economic linkages that remittances create in local economies. They also tend to confound remittances use with the effect of remittances on family expenditures; and many studies employ a rather limited definition of “productive investments”, restricting them to investments in equipment while ignoring productive spending on livestock, schooling, housing, and land.

MASSEY ET. AL., 1998: 262

Migration and remittances are the true economic adjustment programs of the poor in our country.

CARLOS GUILLERMO RAMOS,  
SALVADORAN SOCIOLOGIST, 2002

How do we reconcile these seemingly contradictory statements? The study of international migration and development has been wracked by the controversy between perspectives that see the outflow of people not only as a symptom of underdevelopment but also as a cause of its perpetuation, and those that regard migration both as a short-term safety valve and as a potential long-term instrument for sustained growth. The disjuncture also has disciplinary overtones, with sociologists and anthropologists, most often found in the pessimistic camp and economists, especially neoclassical ones and those guided by the “new economics” of migration, supporting a much more optimistic assessment.

To seek a possible reconciliation between these contrary positions, we may consider, first of all, certain assumptions and conclusions about the consequences of migration that seem to be agreed upon by proponents of all perspectives:

- The move abroad is economically beneficial for most migrants and their families. Otherwise, they would not undertake the journey.
- The flow is welcomed and often demanded by employers in the receiving countries who need and may come to depend on migrant labor.
- The philanthropic contributions made by transnational migrant organizations help local communities and commonly provide them with services and infrastructure that otherwise they would not have.
- At the national level, remittances from major labor-exporting countries acquire “structural” importance as a key source of foreign exchange.

On the other hand:

- There is no known instance of remittances economically “developing” by themselves a labor-exporting country.
- Migrant investments in direct productive activities in their home countries have, at best, a modest effect on national economic growth.
- While the indirect multiplier effects of migrant remittances can be considerable, they are countermanded by the cumulative character of migration leading to depopulation of sending communities and regions.
- Migration may decelerate active efforts by sending country governments to promote autonomous national development, insofar as it provides a short-term solution to domestic unemployment and fiscal bottlenecks.

Less universally recognized, but backed by considerable empirical evidence are the following assertions:

- When migrants bring their families with them, the process of depopulation accelerates, as return migration becomes less probable.
- When labor migrants bring their families with them, they foster the growth of a second generation in receiving countries growing up in conditions of singular disadvantage.
- The downward assimilation experienced by second generation youths reinforces negative stereotypes about the migrant population in receiving countries raising the probability of its conversion into an impoverished caste-like minority.

There are key factors leading to alternative outcomes of international migration. These have to do with the behavior of migrants themselves, the behavior of governments in sending and receiving nations, and the

passage of time. The migrant population must be differentiated between the flow of manual low-skill labor and the movement of highly-trained professionals and technical personnel. For brevity, the first flow will be referred to as labor migrants and the second as professional migrants. The behavior and conduct of both flows over time are different, although, as we shall see, their potential for national or local development depends on the same set of factors. I consider each of them in turn and conclude with an assessment of second generation adaptation effects on both sending and receiving nations.

#### LABOR MIGRANTS, NETWORKS, AND REMITTANCES

The origins of labor migration as well as the place of theories designed to explain them is by now well-established. Neoclassical economic theory receives support from the universal wage-differentials between labor-exporting and labor-receiving countries which, in the case of the Mexico-U.S. migratory system, is at present seven-to-one for unskilled labor. The limitations of this individualistic theory have also been made evident by the fact that this wage differential operates unevenly, leading to wide differences in the timing and the size of labor migrant flows within the same country and even within the same region. In effect, the theory neglects the social context in which such individual calculations are made. This context accounts for the varying awareness of wage differentials in potential regions of outmigration, the meaning that these differentials have, and the availability of means to act upon them. Absent these elements, wage differentials, no matter how large, do not translate themselves into sustained labor flows.

The most optimistic prognosis about the developmental effects of labor flows comes from the “new economics of migration”, pioneered by Oded Stark and endorsed by, among others, Douglas Massey and J. Edward Taylor. This theory places emphasis on the concept of “relative deprivation” said to affect non-migrant families when they compare their situation with those who have migrants abroad. It also singles out the non-existence or imperfection of credit, insurance, and futures markets in rural areas of sending countries. Migration is said to represent a form of self-insurance by rural families who use it as one of several strategies for economic survival.

The positive effects of migration come from its ability to compensate for market imperfections, enabling families to engage in productive activities. Even when remittances are spent in direct consumption, they are said to generate indirect multiplier effects because they create new demand for locally-produced goods and services. Thus, according to Massey *et. al.* (1998: 249), every additional “migradollar” sent to Mexico generates a \$2.90 contribution to the country’s gross national product.

While superior to the unrealistic neoclassical approach, the “new economics” perspective leaves open the question of how the early migrants who induce “relative deprivation” among their neighbors started their journey in the first place. Second, its optimistic assessment of the economic effects of migration is questionable when depopulation of the countryside makes it impossible to put migrants’ remittances to productive use. In this sense, the “new economics” may be seen as a realistic but limited-range approach applicable under certain macro-economic conditions, but not others.

At a higher level of abstraction, we find world-systems and other neo-Marxist theories that view labor migration as a natural response to the penetration of weaker societies by the economic and political institutions of the developed world. The concept of “structural imbalancing” (Portes and Walton 1981) was introduced to highlight this process that takes multiple forms – from direct recruitment of workers to the diffusion of consumption expectations bearing little relation to local lifestyles and economic means.

While it has been seldom noted, direct recruitment of peasants for work in ranches and farms of the American Southwest lies at the core of mass migration from Mexico to the United States (Barrera 1980). Once the flow was initiated by the actions of paid recruiters in the interior of Mexico in the nineteenth and

early twentieth century, it became self-sustaining through the operation of the forces outlined by the new economics of migration model. Sentiments of relative deprivation were reinforced by the increasing capitalist penetration of the Mexican countryside that diffused new wants and consumption expectations among the mass of the population. As Delgado Wise has noted, the process of structural imbalancing reached its culmination with the signing of the North American Free Trade Agreement that, in effect, greatly reduced the autonomy of the Mexican state to implement national economic initiatives or protect domestic enterprise, turning the country instead into a giant labor reservoir for U.S. industry and agriculture (Delgado-Wise and Covarrubias 2006).

As a historical concept, structural imbalancing in the center-periphery global system does not seek to account for the dynamics of migration from a particular locality or region, but to provide the necessary framework to understand the broad forces that initiated and sustain the movement over time. It is within a context of extensive social and economic penetration of peripheral societies by the institutions of advanced capitalism that individual cost-benefit calculations or the emergence of relative deprivation as a motivator for out-migration make sense. In essence, migration resolves the inescapable contradiction between the undermining of local autonomy and the increasing diffusion of new consumption expectations in weaker nations without the parallel diffusion of the economic resources to attain them (Alba 1978; Sassen 1988).

Regardless of the various perspectives on the origins of labor migration, all contemporary scholarship converges on the concept of social networks as a key factor sustaining it over time (Portes and Bach 1985; Massey *et. al.* 2002). Social networks link not only migrants with their kin and communities in sending countries; they also link employers in receiving areas to migrants. These ties underlie the emergence of such phenomena as chain migration, long-distance referral systems to fill job vacancies, and the organization of a dependable flow of remittances back to sending communities. At later stages, they are also the key factor in the consolidation of transnational organizations that endow migrant populations with increasing voice in the affairs of their localities and even countries of origin (Guarnizo *et. al.* 2003; Goldring 2002). Figure 1 presents, in schematic form, the dynamics of immigrant transnationalism as portrayed by recent empirical scholarship.

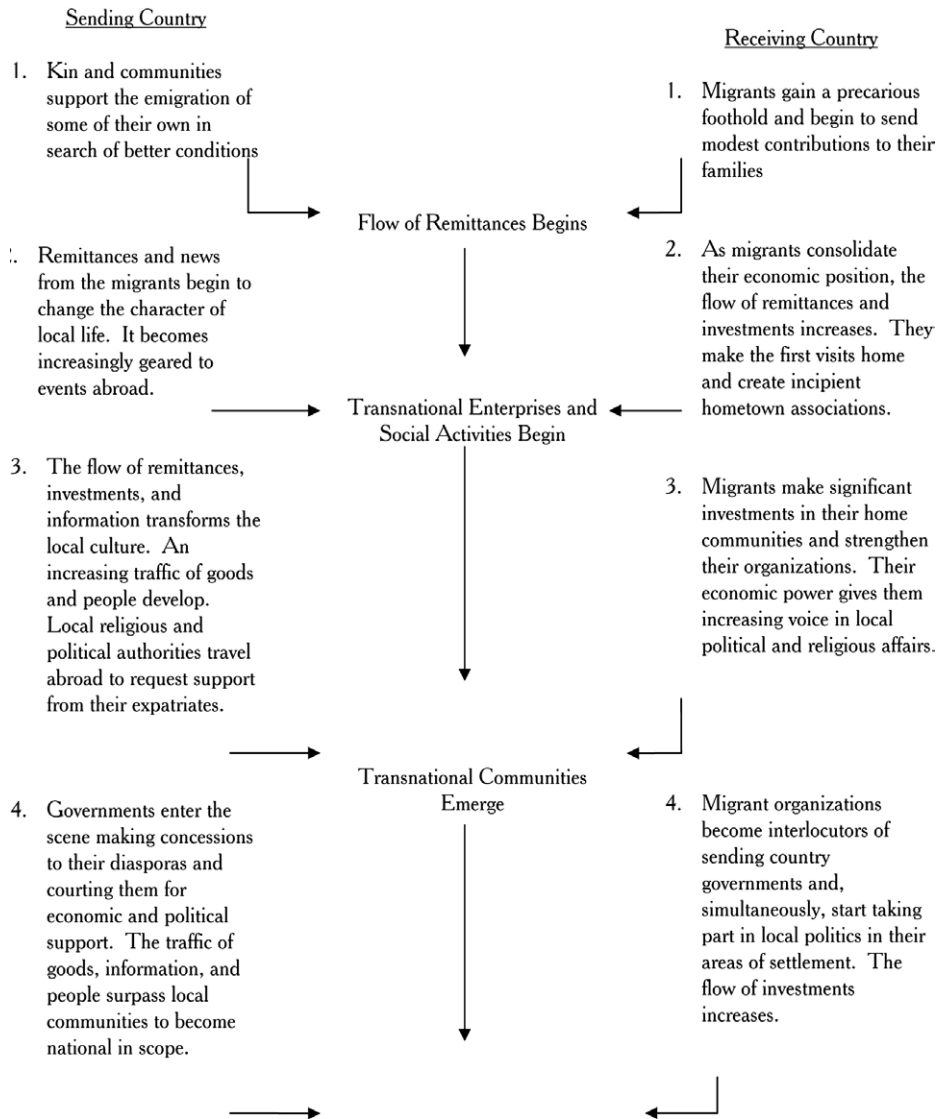
Social networks operate as a double-edged sword on the effects of migration on community and national development. They underlie the optimistic prognosis by Stark and Massey concerning the resolution of local market deficiencies and other production bottlenecks as well as the onset of indirect multiplier effects of remittances. On the other hand, the progressive lowering of the costs of migration that networks make possible can lead, in the absence of countervailing forces, to severe depopulation of sending towns and regions. In the end, there would be few people to send remittances to and no productive apparatus to be re-energized by migrant investments or increased local demands. The cumulative effects of networks over time would lead, in these circumstances, to the desolate extremes portrayed by some ethnographic studies – ghost towns and “tinsel towns” adorned only for the return of migrants for the annual patronal festivities, but populated otherwise only by the old and infirm (Reichert 1981; Grasmuck and Pessar 1991; Smith 2005). Already one-third of Mexican municipalities have experienced population loss, in varying measures, during the last intercensal period.

The operation of social networks over time hence lies at the core on contradictory accounts of the effects of labor migration on development. The next logical question is what kinds of networks lead to one outcome instead of the other or, alternatively, under what conditions do they encourage sustained growth in places of origin versus demographic implosion. The answer to this question appears to hinge on two key factors: governmental intervention and the character of migration itself.

Effective governmental programs in the form of public works, subsidies and support for productive activities, and the direct launching of employment-creating enterprises can make a great deal of difference. By motivating productive-age adults to stay and work, they create the necessary socio-demographic infrastructure for migrant remittances and investments to be productively used. Even when some families choose to “live off remittances”, the demand for goods and services that they generate can be met by other working adults in the community – merchants, farmers, construction crews – thus generating the predicted spin-off effects.



FIGURE 1  
The Process of Immigrant Transnationalism



More important still is the character of migration itself. When it is comprised of young adults who travel abroad for temporary periods and return home after accumulating enough savings, the direct and indirect positive effects described previously have every chance to materialize. On the other hand, when it is formed by entire families, the cumulative depopulating effects of migration are much more likely. Entire families seldom return and migrant workers have less incentives to send large remittances or make sizable investments in places of origin when their spouses and children no longer live there.

In a nutshell, *cyclical* labor migration can have positive developmental effects, especially at the community level. Permanent family migration does not, leading instead to the emptying of sending places. This is, according to all evidence, what has been happening in Mexico. The story of how progressive border enforcement by the United States did not stop the Mexican labor flow, but stopped its cyclical character has been told in detail by Massey and his associates (Massey *et. al.* 2002). The parallel story of how the North American Free Trade Agreement (NAFTA) hollowed out Mexican industry and severely weakened peasant

farming through cheap food imports and capital-intensive mechanized agriculture have been told in similar detail by Delgado Wise and his associates (Delgado Wise and Covarrubias 2006). The end of employment in a number of sectors of the Mexican economy and the severe reduction of opportunities for productive investment in the countryside has stimulated permanent family migration North, reinforcing the effects of a militarized border.

The Paris-based International Federation for Human Rights has recently produced a report on NAFTA that poignantly highlights the same issues:

[...] as a result of open borders, national manufacturing production capacity has been dismantled and the agricultural industry destroyed. The main beneficiaries of NAFTA are the big transnational companies, while the effects on employment and wages have been deeply detrimental to Mexican workers. The destruction of the agricultural industry has driven Mexican families to the urban areas where they now live on conditions of extreme poverty (*Latin America Weekly Report* 2006: 13).

One may add that the same conditions lead families to migrate north braving the desert and death if necessary. Once established on the other side of the border, there is little for these families to return to and, hence, the alleged positive effects of migration on development dissipate. Under these difficult conditions, the only bright spot is the rise of transnational organizations created by migrants abroad. Existing research has shown that participation in these cross-border civic and philanthropic initiatives does not decline, but actually grows with time because it is the better-established and more economically secure immigrants who have the means and the motivation to do something for their hometowns (Guarnizo *et. al.* 2003; Portes 2003; Portes *et. al.* 2006).

In the case of Mexico, hundreds of *clubes de oriundos* (hometown committees) and dozens of federations of such committees organized according to the state of origin have emerged in recent years. They have acquired such power and visibility as to become interlocutors of Mexican state and federal authorities and to acquire a frequently decisive significance in the development prospects of their hometowns. Mexican governmental initiatives such as the creation of the Institute for Mexicans Abroad (IME is the Spanish acronym) and the launching of the *tres-por-uno* program where each dollar contributed by migrant organizations to philanthropic causes is matched by the Mexican federal, state, and municipal governments, emerged in response to the spontaneous organizational initiatives of migrant communities abroad (Gonzalez Gutierrez 1999; Instituto de los Mexicanos en el Exterior 2004).

Migrants' transnationalism can thus be understood as a form of grassroots response to the inequities and the economic difficulties that motivated their migration in the first place. It is a form of "globalization from below" that countermands, at least in a partial way, the inequality-deepening "globalization from above" promoted by the interests of corporate capitalism. It is in this context that one fully understands the implications of Carlos Ramos' remark, cited at the start of this paper, that migration and remittances are the true economic adjustment program of the poor.

#### PROFESSIONAL MIGRATION: THE BRAIN DRAIN AND THE BRAIN GAIN

Demand from migrant labor in the developed world is not limited to labor-intensive industries and sectors. In the United States, in particular, sustained economic growth has led to a rising demand at the other end of the spectrum, that is for professional and technicians of high caliber. Technological booms like those giving rise to the Silicon Valley in California, Route 128 around Boston, and the Research Triangle Park in North

Carolina have produced sustained demand for well-trained engineers and gifted programmers (Saxenian 1999, 2002; Alarcon 1999). On more traditional sectors, a perennial scarcity of nurses, general medical practitioners, and scientists in certain fields has been met by foreign-trained professionals (Portes 1976; Espenshade and Rodriguez 1997).

The U.S. Congress, recognizing this rising demand, created in 1990 the H-1B visa program under which highly-skilled professionals could be hired for temporary work in the United States. The visa and work permits are issued for a maximum of three years, renewable for another three. In practice, many “H-1B workers” eventually shift their status to legal permanent residence. In 1990, the authorized ceiling for this program was 65,000. The American Competitiveness and Work Force Improvement Act of 1998 (AC-WIA) increased it to 115,000 and, in 2002, it was further increased to 195,000. In 2003, 360,498 H-1B permits to temporary workers with college degrees were issued, of which approximately half were renewals. Principal specialty areas included computer science, engineering, and information technologies. The main national sources of this professional inflow in the same year were India (75,964), Canada (20,947), Mexico (16,290), China (12,501), and Colombia (10,268) (Office of Immigration Statistics 2004).

While occupational preferences continue to be a mainstay of the permanent immigration system of the United States and while thousands of foreign professionals come through this channel every year, there is little doubt that the H-1B program that has become the primary source of “flexible” labor supply for the high-tech, highly-skilled sectors of the U.S. economy. Table 1 presents additional information about the sources, education, and remuneration of H-1B migrant workers in recent years.

TABLE 1  
Profile of H-1B Temporary Immigrants, 2002

Industry	Number	Percent of Total	Median Income \$	Master's Degree or Higher	Leading Country of Birth (%)
All:	197,537	100	55,000	48	India (34)
Top Six Industries:					
Computer systems design	50,776	25.7	60,000	36	India (68)
Colleges and Universities	18,401	9.3	37,000	93	China (26)
Architecture and Engineering	8,963	4.5	48,000	44	India (21)
Scientific and Technical Consulting and Management	7,458	3.8	55,000	43	India (39)
Scientific Research and Development	6,695	3.4	54,000	43	China (24)
Telecommunications	4,357	2.2	70,000	48	India (38)

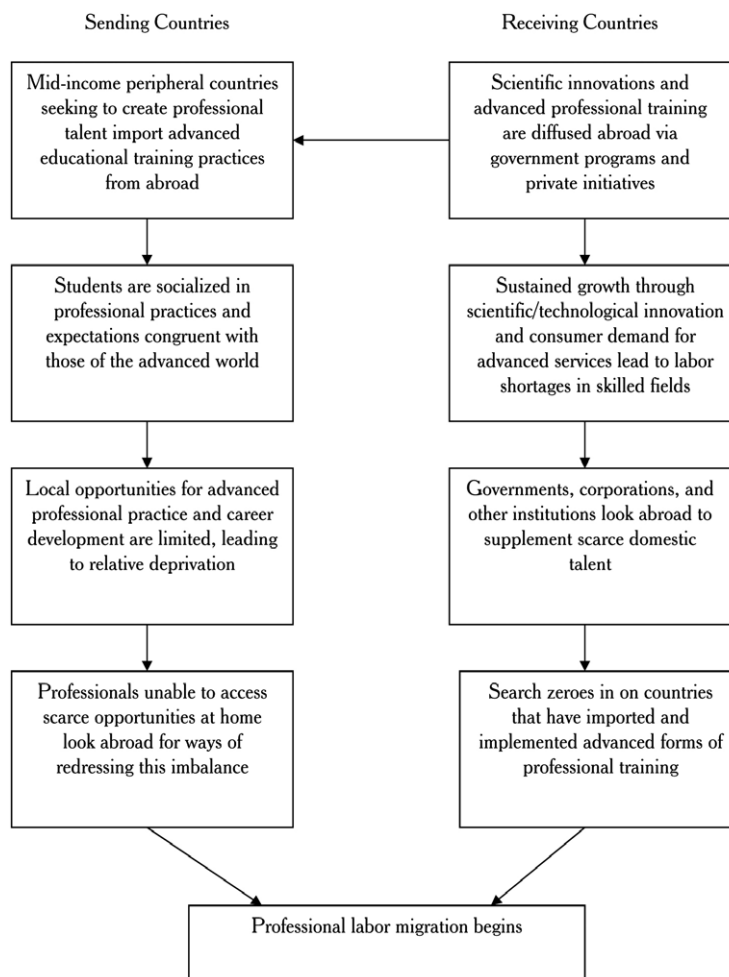
Dubbed “brain drain” in the sending countries, the determinants of these flows have been analyzed in terms similar to manual labor migration, and with the same theoretical lenses. The individualistic cost-benefit framework of neoclassical economics finds support in the fact that professional migration commonly originates in poor countries where the expected remunerations for professionals are but a fraction of what they can receive in the United States and other developed countries. The theory is contradicted, however, by the fact that it is mid-income, not the poorest nations that are the major sources of professional migration and that, within these countries, there are great variations in the motivations and probability of migration. Regardless of home country conditions, most professionals do not leave.



A perspective akin to the “new economics of migration” emphasizes the relative deprivation of would-be migrant professionals in relation to two reference groups: well-situated professionals at home and similarly-trained professionals abroad (Portes 1976). The first group has acquired the wherewithal to practice their careers in relatively good conditions and to lead a middle-class existence in their own country. The inability to meet this standard is a powerful motivator for departure. In other words, it is not the invidious comparison of salaries with those paid in the developed world, but the inability to access remunerations that make possible a decent lifestyle *in their own countries* that becomes a key determinant of brain drain.

In relation to professionals abroad, the central source of relative deprivation is not salary differentials, but work conditions and opportunities for self-development. At this point, the theory of structural imbalancing of peripheral societies becomes relevant as it highlights how diffusion of scientific innovations and modern professional practices from the global centers commonly lead to forms of training that bear little relationship to conditions in peripheral countries (Portes and Walton 1981: Ch. 2). Engineers and physicians are thus trained in the latest and most scientific ways of practicing their profession, when the equipment and conditions to put these skills into practice in their own countries are scarce and, at times, entirely absent. In this fashion, less developed nations end up spending scarce resources in educating personnel whose future potential for career development is situated abroad. This is the dynamics underlying the syndrome labeled in past empirical studies “modernization for emigration” (Portes and Ross 1976). Figure 2 graphically summarizes the forces at play.

FIGURE 2  
Determinants of the Brain Drain



The classical literature on the brain drain described it as an unmitigated disaster for peripheral countries whose scarce pools of professional and scientific personnel were constantly siphoned off by the richer nations and whose painful efforts to create and expand cadres of domestic talent came to naught (Oteiza 1971; Diaz-Briquets and Weintraub 1991). In recent years, however, new evidence, along with the advent of the transnational perspective on immigration, have partially modified these conclusions.

In an increasingly globalized system, ever-growing innovations in transportation and communications technologies have greatly facilitated contact across international borders. If this is the case among labor migrants, how much more so among professionals whose economic resources and levels of information are significantly greater. The same empirical literature on determinants of participation in transnational organizations, cited earlier, uncovered the fact that higher education and occupational status had positive and significant effects on the probability of engaging in different forms of transnational activism – economic, political, and socio-cultural.

TABLE 2  
Determinants of Transnationalism among Latin American Immigrants  
in the United States, 1998

Predictors <sup>1</sup>	Economic (Transnational Entrepreneurs) <sup>2</sup>		Political (Strict Definition) <sup>3</sup>		Socio-cultural <sup>4</sup>
	Coefficient	p <sup>5</sup>	Coefficient	Percent Change <sup>6</sup>	Coefficient
Demographic					
Age	.013	--	.101**	10.6	-.008
Age Squared	--	--	-.001**	-0.1	--
Sex (Male)	1.035***	.08	1.209*	235.3	.697**
Marital Status	.440*	.03	.118***	12.6	--
Number of Children	-.049	--	--	--	.120**
Human Capital					
Education (Years)	.114***	.01	--	--	.402**
High School Graduate	--	--	1.003***	172.7	--
College Graduate	--	--	.324**	38.3	--
Professional/Executive Background	1.191***	.10	--	--	.375
Assimilation					
Years of US Residence	.036*	.003	.034***	3.5	.018#
US Citizenship	--	--	-.041	--	.141
Experienced Discrimination in US	.308	--	--	--	.287*
Downward Mobility <sup>7</sup>	.402**	-.03	-.058	--	--

<sup>1</sup> Predictors not included in each regression are indicated by a hyphen in the column marked "coefficient". Some predictors of the regression of socio-cultural transnationalism are omitted.

<sup>2</sup> Logistic regression of the log-odds of transnational entrepreneurship. Source: Portes *et. al.*, 2002.

<sup>3</sup> Negative binomial regression of the number of political activities, electoral and civic, in which respondents are involved on a regular basis. Source: Guarnizo *et. al.*, 2002.

<sup>4</sup> Ordered logit regression of an additive index of occasional or regular participation in the set of socio-cultural activities listed in Table 2. Regular participation in the first three of these activities are also included in the definition of political transnationalism. CIEP unweighted sample. Source: Itzigsohn and Saucedo, 2002.

<sup>5</sup> Increase/decrease in the net probability of economic transnationalism associated with a unit increase in each predictor. Non-significant effects are omitted.

<sup>6</sup> Increase/decrease in the percent of regular transnational political activities in which respondents engage associated with a unit increase in each predictor. Non-significant effects are omitted.

<sup>7</sup> Ratio of last country occupation to first occupation in the U.S., both coded along a 5-point hierarchical scale.

These findings, summarized in Table 2, indicate, for example, that a high school diploma increases by 172 percent the probability of migrants engaging in transnational political activism and that a college degree further increases it by 38 percent. Along with the positive effects of social networks and length of U.S. residence, these results clearly show that it is the better educated, more comfortably established, more secure, and better connected migrants who are most likely to participate in organizations linking them to their home countries (Guarnizo *et. al.* 2003; Portes 2003).

Intuitively, these findings make sense. In addition to national loyalties and the weight of nostalgia, migrant professionals commonly have a sense of obligation to the institutions that educated them. When, on the basis of this education, they achieve wealth, security, and status abroad, it is only natural that they seek to repay the debt. Some do so through philanthropic activities; others through transferring information and technology; still others through sponsoring the training of younger colleagues. Professionals who have become successful entrepreneurs may go further and endow their alma maters or even found institutions of higher learning and research at home (Vertovec 2004; Guarnizo 2003; Saxenian 1999). As the case of India exemplifies, the growth of a sizable population of professionals, engineers, and scientists abroad does not necessarily lead to the hollowing out of home country institutions, but may actually energize them through a dense transnational traffic of personnel, resources, and ideas (Saxenian 2002).

The positive or negative effects of professional emigration on development depend on the same two factors already examined for the case of manual migration: the actions of home country governments and the character of migration. Concerning the first, the official creation of centers of higher learning, support for research projects, and financial incentives for the establishment of high-tech private industry can provide the necessary infrastructure to receive and absorb the contributions of professionals abroad. For migrants to be able to make economic, scientific, and technological transfers home, there has to be institutions capable of receiving and benefiting from such contributions. Otherwise migrant good intentions can at best fund charity projects that do not further the scientific or technological development of their countries.

India exemplifies again the ways that a country can benefit from large-scale professional migration. While the country continues to export thousands of engineers and computer scientists, the institutions that trained them continue to exist and flourish with strong government support. Protected national industry also generates technological development and creates new employment opportunities for returnees. Dense institutional networks give scientists and engineers on temporary visas abroad something to go back to. It also lays the groundwork for the transnational activities of those permanently settled in North America, Europe, or Australia who wish to contribute to India's scientific development or even to establish new enterprises there. The maturing of these transnational networks has much to do with the dynamism acquired by Indian industry and the country's scientific/technological establishment in recent years (Saxenian 2002; *The Economist*, 2006).

Mexico too has a well-developed network of universities and scientific institutions and, hence, the capacity to benefit from its own sizable population of professionals in the United States. However, the evisceration of domestic industry caused by NAFTA has reduced significantly the capacity for autonomous technological innovation and hence the attractiveness of the country to would-be professional returnees. Unlike India or China, Mexico succumbed to external pressures to unconditionally open its borders, thus placing the prospects of economic development in the hands of foreign investors and greatly reducing its capacity for high-tech innovation. In the process, it seriously weakened the institutional network upon which a transnational community of Mexican professionals and scientists could develop (Alarcon 1999; Pozas 2002).

The character of migration also bears on the development potential of professional outflows. When the movement is cyclical, with temporary journeys abroad followed by return to permanent positions at home, the technology transfer potential of migration is augmented. Returned professionals and scientists can immediately put to use what they have learned abroad. In this sense, the U.S. H1-B program represents a welcome development. Although there is no doubt that it was implemented to increase the flexibility of the high-tech labor

supply to American industry, the program also has had the consequence of promoting the cyclical character of the foreign labor flow, as migrant professionals are legally required to return after a maximum of six years.

Unlike permanent labor migration, permanent professional migration does not necessarily have negative consequences for the sending country. First, the departure of professionals does not depopulate the countryside, as it comes from cities and it is scarcely a massive outflow. Second, although professionals abroad may be permanent residents and may even become citizens of the receiving country, they can *make the process cyclical* by using their economic resources and know-how for regular transfers to their home country and for sizable investments or programmatic activities there. Unlike labor migrants whose cross-border contributions yield at best philanthropic projects and hometown public infrastructure, professional transnationalism has the potential to alter significantly the level of scientific expertise and technological know-know in the home countries.

Whether temporary professional migrants in fact return (as opposed to making every effort to remain abroad) and whether established professional migrants invest seriously in transnational activities for scientific/technological development depends, ultimately, on the first condition stipulated previously. There must be something to return to. As the remittances and investments of labor migrants lack any development potential when their hometowns become bereft of productive infrastructure and people, the contributions that professional communities abroad can make evaporate when there is no institutional structure, no network of national high-tech industries to receive them and put them to use.

#### SEGMENTED ASSIMILATION AND DEVELOPMENT

As is well-known, most labor migration to the United States today comes clandestinely. The same is true of a significant proportion of labor flows to Western Europe. From a theoretical standpoint, enough empirical information exists to arrive at a general understanding of the determinants of these unauthorized flows. They emerge out of the clash between attempts to enforce borders by receiving states and the mutually supportive forces of migrant motivations, their networks, and employer demand for low wage labor in host societies. The networks constructed by migrants across national borders and the “migration industry” of travel agents, lawyers, people smugglers, document forgers, and the like have proven extraordinarily resilient over time. The lengths to which people are willing to go in order to reach the developed world have been demonstrated repeatedly, both at the U.S. border and in the Mediterranean straits separating Europe from North Africa (Zolberg 1989; Castles, 1986, 2004).

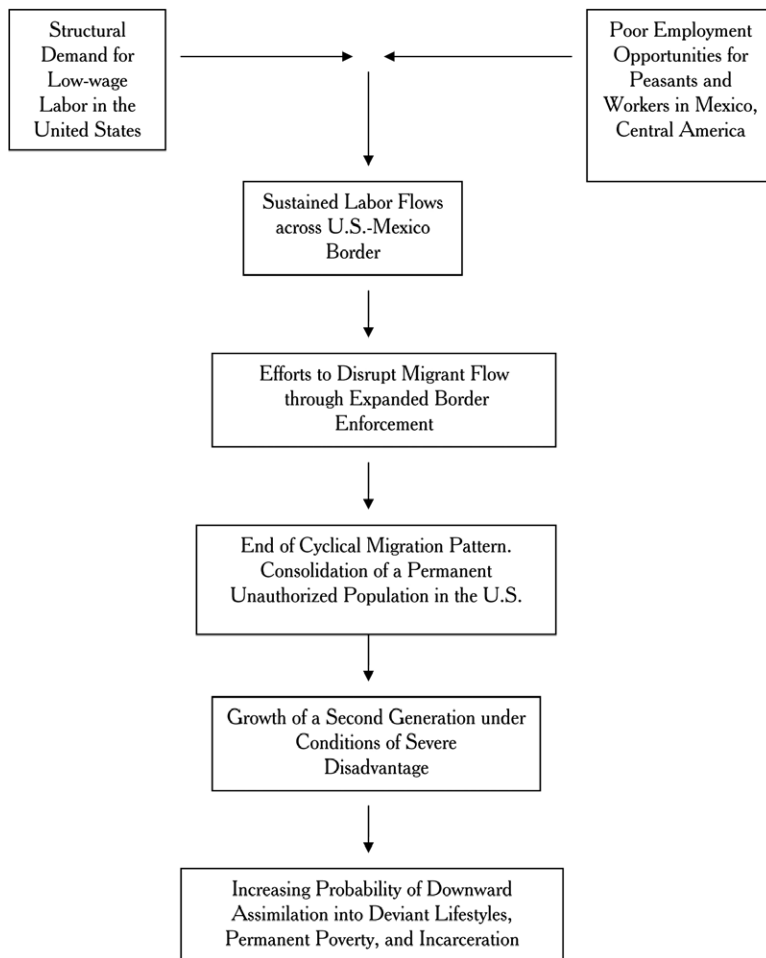
Simultaneously, stagnant or declining populations, growing economies, and an increasing reluctance by educated workers to engage in menial, low-wage labor creates a structural demand in the labor market of wealthy nations that migrants are more than happy to fill. Common depictions of “alien invasions” in the popular literature neglect the fact that labor migrants in general, and unauthorized ones in particular, come not only because they want to but because they are wanted. While the general population may oppose their presence, firms and employers in a number of sectors need and rely heavily on this labor supply (Portes and Rumbaut 1996: Ch. 3; Massey *et. al.* 2002).

Faced with the combined forces of migrant networks, the migration industry, and structural labor demand, receiving states have not been able to consistently and effectively control their borders. As we have seen above, a series of unexpected consequences emerge instead out of this clash. One of the most important and least noticed is the link between unauthorized migration and the fate of the second generation. The issue of illegality is generally studied as a first-generation phenomenon, in terms of the migrants’ origins, their ways of overcoming legal barriers, and their impact on host labor markets. Forgotten is the fact that illegals, like other migrants, can spawn a second generation that grows up under conditions of unique disadvantage.

The concept of *segmented assimilation* was coined to highlight the point that, under present circum-

stances, children of immigrants growing up in the United States confront a series of challenges to their successful adaptation that will define the long-term position in American society of the ethnic groups that contemporary immigration spawns. Facing barriers of widespread racism, a bifurcated labor market, the ready presence of countercultural models in street gangs and the drug culture, immigrants' success depends on the economic and social resources that they, their families, and their communities can muster (Portes and Zhou 1993; Rumbaut 1994). Immigrant professionals and entrepreneurs commonly possess the necessary human capital and economic means to protect their children. They can face the challenges posed by the host society with a measure of equanimity.

FIGURE 3  
Immigration Border Control and its Unexpected Consequences



Source: Portes and DeWind (2004: 841)

On the other hand, poorly educated migrants who come to fill menial positions at the bottom of the labor market and who lack legal status have greater difficulty supporting their youths. Because of poverty, these migrants often move into central city areas where their children are served by poor schools and are daily exposed to gangs and deviant lifestyles.

The trajectory followed by a number of children of immigrants trapped in this situation has been labeled *downward assimilation* to denote the fact that, in their case, acculturation to the norms and values of



the host society is not a ticket to material success and status advancement, but exactly the opposite. Dropping out of school, adolescent pregnancies, incidents of arrest and incarceration, injuries or death in gang fights, and increasing conflict and estrangement from parents are all consequences and indicators of this situation. Because of their condition of vulnerability, children of unauthorized immigrants are among the most likely to confront the challenges posed by the host society unaided and, hence, to be at risk of downward assimilation (Fernandez-Kelly and Curran 2001; Lopez and Stanton-Salazar 2001).

In the past, it made sense to study unauthorized immigration as a one-generation phenomenon because the flow was comprised of young adults who came to the United States for cyclical work periods, such as those marked by agricultural harvests, and then returned home. As seen previously, vigorous border enforcement has encouraged unauthorized migrants and others in a tenuous legal position to bring their families along, as cyclical returns home become too costly or dangerous. A settled unauthorized population establishes the demographic basis for the emergence of a handicapped second generation and, hence, for the theoretical link between determinants of these labor flows and the process of segmented assimilation in the second generation. Figure 3 graphically portrays the process, as it has taken place in the United States.

In Mexico, in particular, massive family migration brought about by deteriorating labor market conditions in the post-NAFTA period, along with the militarization of the border has been analyzed in terms of depopulation of the Mexican countryside and the consolidation of a vast unauthorized and impoverished population in the United States. The literature on migration and development seldom extends to consider what happens to these families once they are on the other side of the border, except for the volume of remittances that they continue sending home. Raising children under the difficult conditions that unauthorized immigrants endure in the developed world and, in particular, in American society, has a series of other important consequences for the sending nation.

First, Mexican immigrant children and children of immigrants may not only be “lost to Mexico” in the sense that immigrant families are unlikely to return. They may be “lost” altogether when the difficult conditions under which they grow lead to downward assimilation. Second, the school abandonment, premature pregnancies, and deviant behavior that are part of this process consolidate the position of Mexicans at the bottom of American society and reinforce racial/ethnic stereotypes among the native white population. These stereotypes increase hostility and opposition to subsequent waves of labor migrants and reduce their chances for successful adaptation.

Third, when young immigrants who have become socialized in deviant lifestyles return to Mexico or are deported there, they bring along these behaviors and often recruit local youngsters into the same activities. Several authors have noted that the “maras” or youthful gangs that have become a public security problem in Mexico and Central America were, in their origins, an import from Los Angeles, Houston, and other U.S. cities. Deportees from these cities, thoroughly enmeshed in American countercultural orientations, can have a very negative influence among the younger population of the areas to which they return. The outcome of this socializing process is that youth gangs suddenly emerge where none existed before, compounding the public security problem of poor nations (Vigil 2002; Smith 2005). Citizen victimization and insecurity have emerged in recent years as a major social problem in these countries, a situation to which the rise of the “maras” has directly contributed (Portes and Hoffman 2003; Perez-Sainz and Andrade-Eekhoff 2003).

This new twist in the history of Mexican and Central American labor migration north, can be fruitfully compared with what happens to children of professional immigrants in the United States. For the most part, these youths move upward, achieving high status positions on the basis of advanced education. Their success reflects back on their ethnic communities, reducing negative stereotypes and even creating positive ones as “model minorities”. In addition, successful second generation professionals and entrepreneurs can continue making contributions, material and intellectual, to the countries where their parents came from (Zhou and Bankston 1998; Zhou 2004; Min 1987).

Not all children of labor immigrants, not even the unauthorized, undergo downward assimilation in the

United States. However, a substantial minority is at risk of doing so and, as just seen, the negative behaviors and lifestyles in which they become socialized can play back on the countries of origin, compounding the problems that they already confront. While money remittances have captured the bulk of attention among scholars and government officials, highlighting the benefits of migration, the costs of “social remittances”, including the return of disaffected youths and their local influence, have only recently started to come into focus.

Empirical evidence of segmented assimilation in the second generation is already at hand. Data from the 2000 U.S. census on school abandonment, male rates of incarceration, and female rates of adolescent and early youth childbearing are presented in Table 3. As indicators of downward assimilation, premature childbearing is far more common among females, while incarceration for a crime is much more prevalent among males. Males are also more likely to drop out from high school. The table presents data for U.S.-born youths of Mexican and Central American origin; for comparative purposes, it also presents figures for native whites and blacks, and well as for second-generation Chinese, Koreans, Indians, and Filipinos. These are the Asian groups whose first generation includes a high proportion of professionals and entrepreneurs.

TABLE 3  
Indicators of Downward Assimilation among Second Generation  
and Native Parentage Youths, 2000

Group	Education		Early Childbearing		Incarcerated for a Crime	
	School Dropouts, Age 25-39 %	School Dropouts, Males 25-39 % <sup>1</sup>	Females, 15-19 %	Females, 20-24 %	Males, 18-39 %	Male Dropouts, 18-39 %
U.S. Born of Foreign Parentage:						
Mexican	24.1	43.0	5.0	25.2	5.8	10.0
Guatemalan, Salvadoran	22.3	52.8	3.0	16.5	3.0	4.8
Chinese	3.6	8.3	0.4	0.9	0.6	4.7
Indian	5.9	6.7	0.6	1.6	1.0	6.7
Korean	3.2	3.3	0.2	2.8	0.9	2.1
Filipino	5.9	7.1	1.6	7.3	1.2	4.8
U.S. Born of Native Parentage:						
Non-Hispanic Whites	9.1	10.5	1.9	15.6	1.7	4.8
Non-Hispanic Blacks	19.3	21.8	4.5	22.5	11.6	22.2

Source: Rumbaut 2005, based on figures from the U.S. 2000 Census,  
5 percent Public Use Microdata Sample.

As shown in the table, close to one-fourth of U.S.-born Mexicans and Central Americans drop out of high school, a figure that more than doubles the corresponding proportion among native whites and quadruples the figure among all second generation Asian groups. Among males (whether U.S.-born or foreign-born), the proportion of those without a high school education is much higher, the figure approaching half of all young Mexican-Americans and surpassing half of Central Americans. This last figure quintuples the rate for native whites.

<sup>1</sup> Figures include foreign-born males of all groups.

Figures on childbearing for U.S.-born adolescent and young women tell a similar story. Among second-generation Mexican-American female teenagers, the rate is 5 percent as compared with 0.4 percent for Chinese-Americans and just 0.2 percent for Korean Americans. The pattern repeats itself among young women, ages 20-24, with 16 percent of second generation Salvadorans and Guatemalans and 25 percent of Mexicans with children. These figures are comparable to those among native African-Americans, but are much higher than those among Asian-American young women, less than 3 percent of whom have become mothers.

According to the U.S. Census, the rate of incarceration among native white males aged 18-39 is less than 2 percent and, among second generation Asian-Americans, it is less than 1 percent. The figure climbs to 3 percent among Central Americans and 5 percent among Mexican-Americans. To show the interaction between school abandonment and incidents of arrest and incarceration, the table includes rates of imprisonment among U.S.-born males without a high school degree. The rates increase significantly for all groups reaching almost 5 percent among native whites and 10 percent among Mexican-Americans. Only native African-American dropouts are in a worse situation.

The Children of Immigrants Longitudinal Study (CILS) is the largest long-term study of second generation youths in the United States (Portes and Rumbaut 2005). CILS includes a large sample of second generation Mexicans, Filipinos, and other Asians interviewed in schools in the San Diego metropolitan area when they were in the eighth and ninth grades (average age 14) and then followed over time. The sample was re-interviewed at average age 17, by the time of high school graduation, and then at average age 24, when entering young adulthood. Table 4 presents data from this sample on three variables: rates of school inactivity, premature childbearing, and rates of incarceration.\*

TABLE 4  
Indicators of Downward Assimilation among  
Second Generation Youths in Southern California

Group	Inactive in High School, Mean Age 17 <sup>1</sup> %	Had a Child, Females Mean Age 24%	Incarcerated for a Crime, Males Mean Age 24
Mexico	26.7	47.5	20.2
Other Latin America <sup>2</sup>	31.5	16.1	18.8
China, Taiwan	3.9	0.0	0.0
Philippines	17.6	24.5	6.8
Vietnam	18.2	5.2	14.6
Other Asia	23.2	16.7	9.5
Totals	20.8	28.7	11.9

Source: Rumbaut 2005, based on data from the Children of Immigrants Longitudinal Study.

\* Rates have been adjusted for sample mortality in the third CILS survey which retrieved approximately 70 percent of the original respondents. School inactivity rates were computed on the full CILS-I sample.

<sup>1</sup> Data provided by the San Diego Unified School District for full CILS-I sample.

<sup>2</sup> Mostly second-generation Salvadorans and Guatemalans.

School inactivity is a proxy for school abandonment prior to high school graduation. The pattern of results is similar to that observed in census data, with very low rates among second-generation Chinese, climbing to the teens among Filipinos and Vietnamese, and the surpassing one-fourth of Mexican-Americans. The same trend is observable in the other indicators of downward assimilation, except that differences among second generation nationalities are wider than in census data. Thus while rates of female premature childbearing or young male imprisonment for a crime are exactly zero among Chinese-Americans, they reach 47 percent of Mexican-American females (children) and 20 percent of males (in prison).

These compelling differences go on to reinforce stereotypes about “cultural” characteristics of different immigrant groups, some of whom are depicted as innately inferior, while others are promoted to the status of “model minorities”. These *post-hoc* explanations ignore the historical process that gave rise to contemporary realities. Differences in human capital among first-generation labor and professional immigrants, plus differences in their contexts of reception – legal and protected for professionals, commonly unauthorized and persecuted for laborers – are the structural features that account for the long-term evolution of their respective ethnic communities. Depending on these structural factors, children and young people of similar potential may be propelled forward to careers of achievement and success in the receiving country or relegated to lives of poverty and often crime. They will become part of high-status “model” groups posed to be integrated promptly into the American mainstream or of caste-like, impoverished minorities. As we have seen, the communities and the countries that their parents left behind can also be significantly affected by the process of segmented assimilation in the second generation.

#### CONCLUSION

Theories of national development, in Latin America and elsewhere, have seldom paid much attention to international migration. At best, these flows were treated as a marginal phenomenon – a reflection of the problems of underdevelopment. No longer. The size of expatriate communities and the volume of the remittances that they send home have prompted a reorientation of theoretical models, where these massive resources play center stage (Guarnizo 2003). For some authors, remittances can have a key role in resolving past financial bottlenecks and furnishing the necessary resources for long-term development.

I argue that these rosy predictions are exaggerated. There is no precedent that any country has taken the road toward sustained development on the basis of the remittances sent by its expatriates. More importantly, the positive effects of these contributions are contingent on other factors. Depending on them, migration can lead to vastly different consequences – economic stagnation, the emptying out of sending places, and the massive loss of talent *vs.* the energizing of local economies, new productive activities, and significant contributions for scientific and technological development.

For labor migration, the key consideration is whether the cyclical character of the flow can be preserved. While migration inevitably produces a settlement process of in the host country, the extent to which the normative pattern is return after temporary stays abroad governs the potential of the movement for strengthening local economies and preventing depopulation. Cyclical migrations work best for both sending and receiving societies. Returnees are much more likely to save and make productive investments at home; they leave families behind to which sizable remittances are sent. More importantly, temporary migrants do not compromise the future of the next generation by placing their children in danger of downward assimilation abroad. To the extent that sending country governments provide the necessary educational resources, these children can grow up healthy in their own countries, benefiting from the experiences and the investments of their parents. The nightmare of young deportees carrying with them the crime culture learned abroad can thus be effectively avoided.

Professional migration need not be formally cyclical to become so in practice. For reasons explained previously, migrant professionals commonly have the necessary motivation and resources to engage in trans-

national activities in favor of their home country institutions. As the cases of India, Taiwan, and other major sources of professional migrants attest, these activities can often make major contributions to scientific and technological development in sending nations.

In this area, as in all others pertaining to national development, the role of the state is decisive. The positive relationship between migration and development is not automatic. Market forces alone will not establish the connection. The proactive intervention of the state to create productive infrastructure in rural areas and scientific/technological institutions capable of innovation are necessary conditions for the developmental potential of migration flows to materialize. Countries that simply open their borders, hoping that the “magic” of the market will do the rest will not reap these benefits. The contrasting experiences of countries that have followed this path *versus* that have taken a proactive stance toward their expatriate communities and their economic/scientific potential provide a clear lesson for the future.

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