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## Migration and Poverty in Mexico's Southern States

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### I. Introduction

Migration in Mexico's southern states takes different forms, so there are alternative ways of thinking about the topic. One possibility is to distinguish migrants according to their place of destination, that is, whether migrants remain in their state of origin (intermunicipal migration), move to another state within Mexico (interstate migration), or go abroad, essentially to the United States (international migration). Another distinction is between temporary migrants, among which figure the *jornaleros agrícolas* (seasonal migrant workers) who migrate on a seasonal basis in order to find work, and permanent migrants who settle in urban areas or abroad. Still another distinction is between households who migrate as a whole, or households who send some members away.

While the three southern states differ substantially in terms of their migration profile, many of the issues confronted by the three states are the same. In this Note, we focus on five questions: (a) How large are migration flows, and what can be expected in the future? (b) To what extent does migration increase per capita income and thereby reduce poverty? (c) What are the determinants of migration? (d) What is the impact of remittances on poverty, inequality, and development? and (e) What programs are implemented by the government to increase the benefits from remittances, and what can be done to reduce the cost for migrants of remitting?

The main results and conclusions that emerge from the analysis are as follows:

- **How large are migrant flows, and what can be expected in the future?** Both permanent and temporary net emigration flows out of the southern states are large. The three southern states have similar net interstate permanent outflows, but international emigration (essentially to the United States) is more frequent in Guerrero and Oaxaca than in Chiapas. Simulations by the National Institute of Statistics, Geography and Information (Instituto Nacional de Estadística, Geografía e Informática—INEGI) suggest that net outflows of permanent migrants will remain substantial over the next 15 years. The three southern states also have many *jornaleros agrícolas* who migrate temporarily. These migrants tend to be poor and they lack access to basic services. Their children often accompany them, work, and do not attend school. Programs such as the National Program of Agricultural Workers (*Programa Nacional con Jornaleros Agrícolas—PRONJAG*) run by the Secretariat of Social Development (*Secretaría de Desarrollo Social—*

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SEDESOL) aim to help this population, but it remains a bit unclear to what extent these programs are actually very successful.

- **What is the impact of migration on per capita income and thereby poverty?** Most migrants migrate to improve their earnings, and interstate migration patterns within Mexico have changed substantially over the past decades to reflect changing employment opportunities. We find empirical evidence that households with temporary migrants have per capita income levels substantially higher than otherwise similar households without temporary migrants. Permanent migration also brings income gains, but of a lower magnitude.
- **Who migrates, and what is the impact of government transfers in rural areas on migration?** A larger number of either adults or children is associated with a higher probability of migrating as more household members are available to do so. Temporary migration is more frequent when the head of household is young as younger workers tend to be more willing to take risks, while permanent migration is slightly more frequent when the head of household is older, probably because older heads of household may be better able to pay for the cost of permanent migration. Better-educated households have fewer members who are temporary migrants, probably in part because better-educated workers may not need to search for agricultural employment, which is, by nature, seasonal and low paying. We also find that a few other variables affect significantly the probability of migrating, including the level of economic development and the urbanization rate of the state of permanent residency. Cash transfers from the Program for Direct Assistance in Agriculture (*Programa de Apoyos Directos al Campo*—PROCAMPO) reduce the probability of migrating.
- **What is the impact of remittances on poverty?** According to Census data for 2000, in Guerrero and Oaxaca, where remittances are larger, the share of the population living in poverty is reduced by 2 percentage points thanks to the income they obtain from remittances; that is, the share of the population in poverty is 2 percent higher if remittances are excluded from total income. While this 2 percent reduction in poverty may not appear to be large, it is similar to the impact of government programs such as PROCAMPO and the Education, Health, and Nutrition Program (*Programa de Educación, Salud y Alimentación*—PROGRESA) (as measured in the Census data), and it is also similar to the potential impact of transfers provided to municipalities through the Fund for Municipal Social Infrastructure (*Fondo para la Infraestructura Social Municipal*—FISM). Private transfers through remittances, therefore, matter as much as public transfers for reducing poverty.
- **What is the impact of remittances on inequality?** While remittances must reduce poverty as compared with a situation with migration and no remittances, their impact on inequality is not clear. Households with very low incomes may not migrate if the cost of doing so is too high, and households with very high incomes may not gain from migration. If only middle-income households send migrants and receive remittances, the impact of remittances on inequality depends on where the households are located along the distribution of income. Still, it can be argued that remittances should be more inequality increasing (or less inequality decreasing) in poorer versus richer states. In the

south, nonpoor households are more likely to receive remittances than poor households. This may then imply that remittances are likely to be inequality increasing.

- **What is the impact of remittances on development and, if it is positive, what can be done to improve this impact?** Remittances may contribute to enhance development, but the literature is unclear regarding the extent to which this is the case. Nevertheless, government initiatives such as the 3x1 Citizen Initiative Program (*Programa Iniciativa Ciudadana 3x1*) aim to increase the impact of remittances on local development in poor areas. The 3x1 Program allows that each peso obtained by international nongovernmental organizations (NGOs) and directed to local development projects, be matched by one peso from local authorities and another peso from the federal state. While still small, the program has the potential of making a difference (especially in poorer municipalities where resources are scarce) while keeping investment decisions local. Other initiatives to reduce the cost of remitting, especially in poorer areas, could foster larger amounts of remittances and thereby development.

Migration in the south of Mexico is a complex issue and it is beyond the scope of this Note to outline a detailed policy agenda in this area. Still, the note provides elements of a diagnostic that should be useful as a first step toward such an agenda. Given the population pressure and the relative scarcity of good land in the southern states, investments in education may well have the potential to raise the productivity of those who remain in rural areas, while enabling migrants to earn a better living in urban areas or abroad. While we do not discuss this issue here, it is clear that migration and remittances play an important role for poverty reduction in the southern states.

## II. The Southern States Have Large Net Permanent Emigration Flows

Data on permanent migration flows in Mexico are available from the 2000 Census at the international, interstate, and intermunicipal levels. It is feasible to use these data to answer two different but related questions.

The first question is: How many people have lived in a given state for at least five years? And among those, how many came from another municipality, another state, or another country? Table 1 provides the answer. It shows that immigration rates in Chiapas, Guerrero, and Oaxaca are below the national average. The share of residents in Mexican states who have come from another state, or from abroad, is 5.0 percent. In Chiapas and Guerrero, these shares are 2.0 and 2.8 percent, respectively, with the two states ranking 31st and 32nd out of all 32 Mexican states. Oaxaca, with 3.2 percent of its population coming from another state or abroad, ranks 28th. Within-state migration is also lower in the three southern states, at 2.7 percent in Chiapas, 2.1 percent in Guerrero, and 3.1 percent in Oaxaca, versus 3.3 percent nationally. Note, however, that among those who came from another state or abroad, less than 10 percent came from abroad in Chiapas and Oaxaca, which is close to the national average, versus 16.8 percent in Guerrero, suggesting higher rates of international migration and return migration in that state.

**Table 1. Permanent Migrant Populations in the Southern States, Mexico 2000**

|  | <i>Chiapas</i>  |              |                | <i>Oaxaca</i> |                | <i>Guerrero</i> |                |
|--|-----------------|--------------|----------------|---------------|----------------|-----------------|----------------|
|  | <i>National</i> | <i>State</i> | <i>Ranking</i> | <i>State</i>  | <i>Ranking</i> | <i>State</i>    | <i>Ranking</i> |
| State population residing for at least 5 years (thousands) | 84,794          | 3,289        |                | 3,019         |                | 2,646           |                |
| Nonmigrant   | 95.0            | 98.0         | 1              | 96.8          | 6              | 97.2            | 2              |
| Nonmigrant municipal                                       | 96.7            | 97.3         | —              | 97.1          | —              | 97.9            | —              |
| Migrant municipal  | 3.3             | 2.7          | —              | 2.9           | —              | 2.1             | —              |
| Migrant  | 5.0             | 2.0          | 32             | 3.2           | 28             | 2.8             | 31             |
| Interstate migration                                       | 91.2            | 90.1         | 20             | 91.2          | 17             | 83.2            | 27             |
| International migration                                    | 8.8             | 9.9          | 13             | 8.8           | 16             | 16.8            | 6              |

— Not applicable

Source: INEGI 2000.

The second question is: What are the net migration flows at the municipal or state level, which depend on how many people immigrate in, and emigrate from each state? Table 2 provides the answer. According to the 2000 Census data, Guerrero has a 3.26 percent emigration surplus. Only the Federal District (*Distrito Federal*—DF) and Veracruz have larger surpluses. Oaxaca and Chiapas also have surpluses (2.15 percent in Oaxaca and 1.42 percent in Chiapas). By contrast, Baja California, Quintana Roo, and Tamaulipas are destination states, with emigration deficits (or immigration surpluses) of 11.73, 16.33, and 7.04 percent, respectively. The data suggest that permanent migration flows out of the three southern states are substantial, which is not surprising given the fact that the southern states have significantly higher levels of poverty than other regions of Mexico.

**Table 2. Internal Migration Balance by State, Mexico's 2000 Census**

|                      | <i>Immigrant Population (%)</i> | <i>Emigrant Population (%)</i> | <i>Migration Balance (%)</i> | <i>Rank for Balance</i> |
|----------------------|---------------------------------|--------------------------------|------------------------------|-------------------------|
| <b>Total</b>         | <b>4.44</b>                     | <b>4.44</b>                    | <b>0.00</b>                  | -                       |
| Aguascalientes       | 5.19                            | 2.58                           | 2.61                         | 25                      |
| Baja California      | 11.73                           | 3.26                           | 8.47                         | 31                      |
| Baja California Sur  | 9.9                             | 4.78                           | 5.12                         | 30                      |
| Campeche             | 5.53                            | 4.4                            | 1.13                         | 20                      |
| <b>Chiapas</b>       | <b>1.4</b>                      | <b>2.82</b>                    | <b>-1.42</b>                 | <b>8</b>                |
| Chihuahua            | 5.84                            | 1.92                           | 3.92                         | 28                      |
| Coahuila de Zaragoza | 3.63                            | 3.52                           | 0.11                         | 15                      |
| Colima               | 6.7                             | 4.86                           | 1.84                         | 21                      |
| Distrito Federal     | 5.25                            | 10.94                          | -5.69                        | 1                       |
| Durango              | 3.09                            | 5.81                           | -2.72                        | 4                       |
| Guanajuato           | 2.42                            | 1.9                            | 0.52                         | 17                      |
| <b>Guerrero</b>      | <b>2.05</b>                     | <b>5.31</b>                    | <b>-3.26</b>                 | <b>3</b>                |
| Hidalgo              | 4.97                            | 4.23                           | 0.74                         | 18                      |
| Jalisco              | 2.88                            | 2.75                           | 0.13                         | 16                      |
| México               | 6.63                            | 4.04                           | 2.59                         | 24                      |
| Michoacán de Ocampo  | 2.68                            | 3.33                           | -0.65                        | 12                      |
| Morelos              | 6.43                            | 3.71                           | 2.72                         | 26                      |

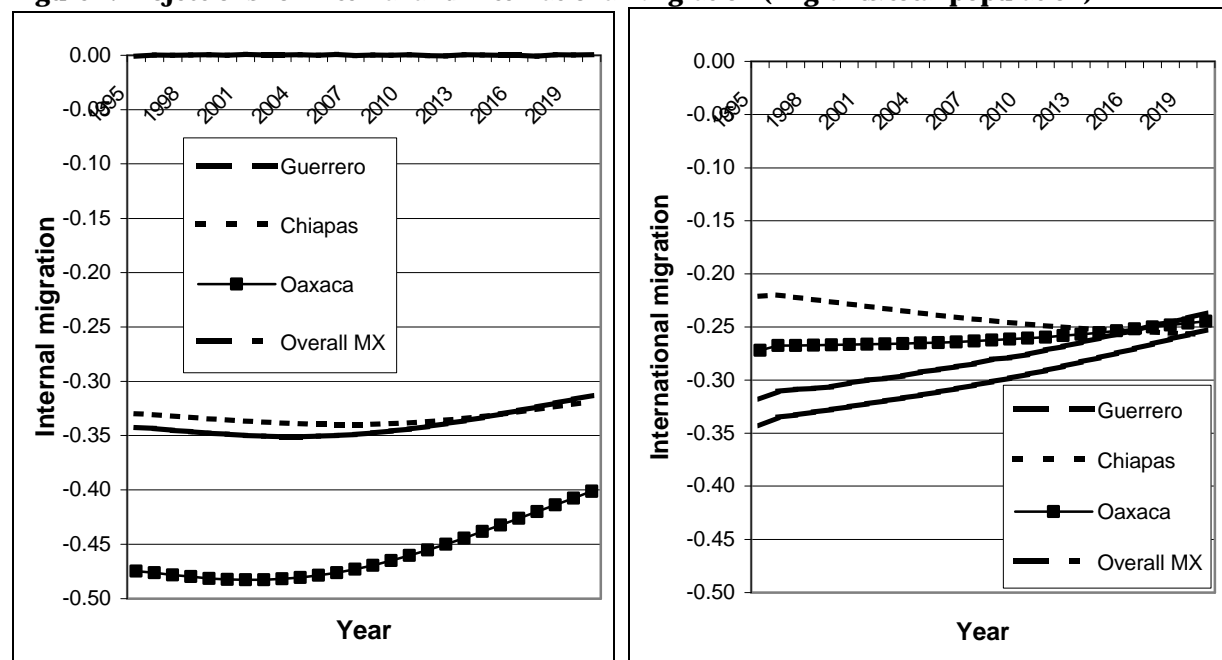
|                      |            |             |       |    |
|----------------------|------------|-------------|-------|----|
| Nayarit              | 4.25       | 5.15        | -0.9  | 11 |
| Nuevo León           | 3.99       | 2.12        | 1.87  | 23 |
| <b>Oaxaca</b>        | <b>2.7</b> | <b>4.85</b> | -2.15 | 5  |
| Puebla               | 3.07       | 3.65        | -0.58 | 13 |
| Querétaro de Arteaga | 6.52       | 2.93        | 3.59  | 27 |
| Quintana Roo         | 16.33      | 4.96        | 11.37 | 32 |
| San Luis Potosí      | 2.78       | 3.79        | -1.01 | 10 |
| Sinaloa              | 3.89       | 5.68        | -1.79 | 6  |
| Sonora               | 4.01       | 3.18        | 0.83  | 19 |
| Tabasco              | 2.69       | 4.39        | -1.7  | 7  |
| Tamaulipas           | 7.04       | 3.07        | 3.97  | 29 |
| Tlaxcala             | 5.11       | 3.37        | 1.74  | 21 |
| Veracruz-Llave       | 2.81       | 6.32        | -3.51 | 2  |
| Yucatán              | 2.99       | 2.94        | 0.05  | 14 |
| Zacatecas            | 3.03       | 4.1         | -1.07 | 9  |

Note: Statistics exclude the population living abroad in 1995 and those who did not specify their place of residence.

Source: INEGI 2000.

It is important to emphasize that emigration flows out of the southern states are expected to continue in the future. According to INEGI, while emigration flows in the south may be reduced a bit over the next 15 years, they will remain large both for internal and international migration. The former prediction is illustrated in Figure 1, which shows a projection of the number of migrants, from each of the three southern states as well as nationally, as a share of the respective population. Note that in Figure 1 the internal migration flows at the national level must sum to zero since interstate migration flows cancel each other.

**Figure 1. Projections for Internal and International Migration (migrants/total population)**



Source: INEGI (2000).

### III. The Southern States Also Have Large Net Temporary Emigration Flows

Apart from high rates of net emigration on a permanent basis, the southern states also have high rates of temporary migration. According to SEDESOL (2000), there are in Mexico between 2.7 and 3.7 million agricultural migrants or *jornaleros agrícolas*. Many of them are from the south, half are women, 40 percent are children, and a large majority are indigenous. These *jornaleros agrícolas* constitute one of the most vulnerable segments of Mexico's population. Indeed, *jornaleros* are poor farmers who migrate to search for employment in the agricultural sector during the planting and harvesting seasons. Away from home, they often live in temporary housing such as *albergues* (shelters) and *campamentos* (camping sites) that lack access to basic sanitation and other amenities.

*Jornaleros* can be classified into three subgroups according to the length of their migration and the distance covered (SEDESOL 2000). *Jornaleros pendulares* leave their place of origin for periods of four to six months, but come back to their place of residency after their job is over. *Jornaleros golondrinos* are those who move constantly, all year long, from one place to the next. *Jornaleros locales* are those employed in areas relatively close to their place of origin who do not need to migrate for long. Oaxaca and Guerrero are the two Mexican states with the highest number of migrant *jornaleros*. While Oaxaca and Guerrero are considered as "source states," characterized by high levels of poverty, land erosion, and a high volume of *minifundios* (small sub-plots of land), Chiapas is considered an "intermediate state," in the sense that it is both a source and a destination state because of mid-size farms growing coffee, banana, and corn that require labor during the harvest season.<sup>2</sup>

*Jornaleros* typically do not benefit from social security, and they lack access to health services. Another issue is the fact that many of them are children who work at a relatively young age. Estimates suggest that there are from 2 to 5 million *jornaleros*, many of whom are children, who offer their service to whoever may hire them (Sanchez Muñozhierro 1996). These working children usually follow their parents in their search for work. As noted by Brizzio de la Hoz (1996), some children work in foreign-owned modern agricultural enterprises that are export oriented (horticulture, flowers, cotton) and have a high demand for labor. In the valley of Sinoala, for instance, up to one third of the workers in horticulture could be minors. The legal interdiction for child labor is not respected by employers in part because of a lack of controls and enforcement. Employers provide verbal work contracts to minors so it is difficult to prosecute such employers. Out of necessity, parents look for work for their children, and they often accept a job only under the condition that their children work as well, because they need

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<sup>2</sup> There are several migration routes for *jornaleros* in southern Mexico. The Pacific route consists of *jornaleros pendulares* from Oaxaca and Guerrero migrating to Sinaloa, Baja California Sur, and Nayarit for five to seven months. Because these *jornaleros* work for large agro-industrial firms, their living conditions tend to be better than those of other groups of migrant workers. The Gulf and Central routes lead to Veracruz, San Luis de Potosí, Tamaulipas Nuevo Leon, and Morelos. These routes are similar in terms of employment generated. Apart from the agricultural fields of Tamaulipas, most migration flows into these regions are of short duration (two weeks to two months), yielding work for employers with medium-size plantations (onion, corn, beans, chilis, alfafa, and tomato, plus sugarcane in Morelos). The Southwestern route has Veracruz (zona norte), Campeche, and the coast of Chiapas as destinations. This route is also used by Guatemalans to work in medium or large plantain, coffee, and banana plantations.

the extra income. However, because working children may receive the same salary as adults, they are expected to perform equivalently, which imposes a lot of pressure on them to increase their productivity. Children work for up to eight or nine hours a day, six days a week, in fairly difficult conditions. Up to 70 percent of those children may not go to school, resulting in high illiteracy rates among this population.

PRONJAG is a government program with the objective of improving the living conditions of seasonal migrant workers. The budget of the program is allocated to subsidize projects in housing and sanitation, access to health services, nutrition, culture, recreation and training. PRONJAG works at two levels: with employers at the place of destination, and with the *jornaleros* at the place of origin. The program's subsidies depend on the type of project and on whether projects are carried out by the employer or by the beneficiaries. The workers' subsidy scheme, which takes place at the place of origin, can be as high as 70 percent of the overall cost for training projects; 80 percent for housing, water, sanitation, and nutrition projects; 85 percent for health; and 90 percent for education. For projects implemented by employers at the place of destination, subsidies can be used for up to three years, with the share of the subsidy as a proportion of the total cost of the projects declining over time, and also depending on the type of project. As shown in Table 3, subsidies for training are lowest, followed by subsidies for water projects. Subsidies are largest for housing, sanitation, education, health, and nutrition. For all types of projects, subsidies are also larger for smaller employers, on the assumption that firms hiring a large number of workers have a better ability to pay for projects designed to improve the living conditions of their workers. While detailed evaluations of the impact of PRONJAG are lacking, so it is difficult to make policy recommendations on the program in this Note, it is clear that the program fits a need.

**Table 3. Maximum PRONJAG Subsidies for Employers At the Place of Destination**

|  | <i>Housing</i>    |                 |                 | <i>Water</i>      |                 |                 | <i>Sanitation</i> |                 |                 |  |
|--|-------------------|-----------------|-----------------|-------------------|-----------------|-----------------|-------------------|-----------------|-----------------|--|
|  | % Maximum Subsidy |                 |                 | % Maximum Subsidy |                 |                 | % Maximum Subsidy |                 |                 |  |
|  | <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> | <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> | <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> |  |
| <b>Size of employer</b>                  |                   |                 |                 |                   |                 |                 |                   |                 |                 |  |
| Large (more than 300 <i>jornaleros</i> ) | 66                | 50              | 25              | 50                | 50              | 50              | 66                | 50              | 25              |  |
| Medium (100 to 299 <i>jornaleros</i> )   | 75                | 50              | 25              | 50                | 50              | 50              | 75                | 50              | 25              |  |
| Small (less than 100 <i>jornaleros</i> ) | 80                | 60              | 40              | 50                | 50              | 50              | 80                | 60              | 40              |  |

**Table 3 (continued)**

| <i>Health</i>     |                 |                 | <i>Education</i>  |                 |                 | <i>Nutrition</i>  |                 |                 | <i>Training</i>   |                 |                 |
|-------------------|-----------------|-----------------|-------------------|-----------------|-----------------|-------------------|-----------------|-----------------|-------------------|-----------------|-----------------|
| % Maximum Subsidy |                 |                 | % Maximum Subsidy |                 |                 | % Maximum Subsidy |                 |                 | % Maximum Subsidy |                 |                 |
| <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> | <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> | <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> | <i>1st year</i>   | <i>2nd year</i> | <i>3rd year</i> |
| 66                | 50              | 25              | 66                | 50              | 25              | 66                | 50              | 25              | 50                | 25              | 0               |
| 75                | 50              | 25              | 75                | 50              | 25              | 75                | 50              | 25              | 50                | 25              | 0               |
| 80                | 60              | 40              | 80                | 60              | 40              | 80                | 60              | 40              | 50                | 25              | 0               |

Source: SEDEDOL 2000.



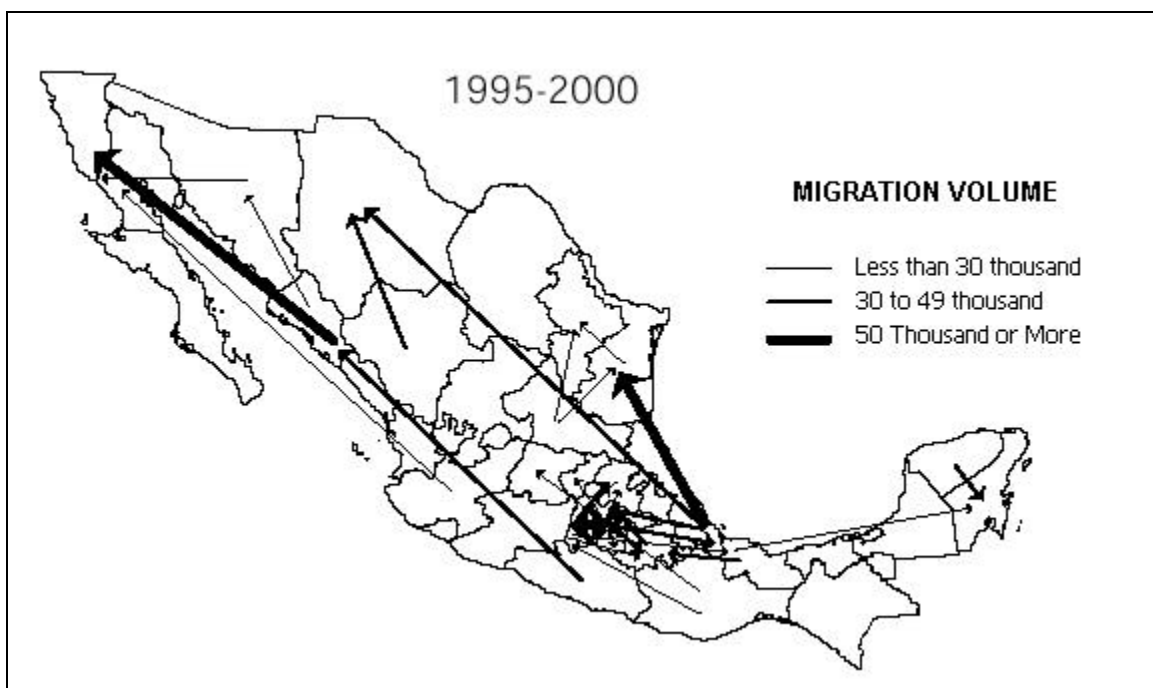
#### IV. Migration Helps Households Increase Earnings and Thereby Reduce Poverty

Why do the southern states have such large net emigration rates, both permanent and temporary? The basic answer lies in the fact that these states are very poor. As noted in the Poverty Note, estimates of income and consumption suggest that two thirds of the population in Chiapas, Guerrero, and Oaxaca are poor, versus 42 to 45 percent at the national level. The southern states have the highest indices of marginality as estimated by the National Population Council (*Consejo Nacional de Población*—CONAPO); these indices take into account access to basic infrastructure services, housing conditions, education attainment, and wage earnings. The southern states also have the lowest human development indices, which take into account per capita gross domestic product (GDP), educational achievement and enrollment, and life expectancy. Migration, whether local, interstate, or international, offers the promise of higher earnings, and thereby better living conditions for the family back home.

The fact that migrants are searching for better job opportunities can also be seen through the changes over time in their preferred destination. As shown in Figure 2, in the past, migrants often chose Mexico State and the DF as their destination. Since the late 1980s, however, the DF has lost its attractiveness (as shown in Table 2), and migrants have chosen other states as their main destination points. Sinaloa, for example, has become a destination state, in part because the state is a source of employment thanks to the demand for agricultural labor in Valle de Culiacan, Valle de Guasave, and Zona Sur, and in part because the state serves as a “bridge” to later move to Baja California and eventually to the United States.

**Figure 2. Migration Flows in Mexico, 1955–60 and 1995–2000**





Source: CONAPO.

A regression analysis based on the 1997 National Survey of Household Socioeconomic Characteristics (*Encuesta de Características Socioeconómicas de los Hogares—ENCASEH*) confirms that there are potentially large gains from migration. The analysis is conducted with the ENCASEH survey (implemented by the staff of PROGRESA) rather than with the National Household Survey (*Encuesta Nacional de Ingresos y Gastos de los Hogares—ENIGH*) because the ENIGH does not have information on migration. The model assesses the impact on the logarithm of per capita income of the following variables: (a) the geographic location of the household (urban versus rural); (b) household size variables and their square (number of infants, children, and adults); household structure variables such as whether the head of household is a woman, the age of the head of household and its square, and whether the head of household has a spouse or not; (c) a number of characteristics of the head of household, including his/her level of education, whether he/she is working and, if so, in what capacity, whether the household owns land, and the amount of land cultivated by the household (as well as the square of this amount); and (d) some of the same characteristics for the spouse of the head of household, in terms of education level. Separate regressions are estimated for the country as a whole and for the three southern states taken together (as in the Poverty Note, we do not estimate the regressions separately for each state because of a lack of representativity of the underlying data at the state level).

The coefficients in Table 4 provide estimates of the percentage increase or decrease in per capita income associated with the variables. Many of the results are similar to those reported in the Poverty Note. Controlling for other variables in the regressions, households with a larger number of infants and children have a lower level of per capita income, and thereby a higher probability of being poor, which is not surprising since the resources of the household have to be shared among a larger number of household members. Having more adults in the household is also associated with a lower per capita income, but in the south the

impact is not statistically significant at the 5 percent level (as observed in the Poverty Note), possibly because living conditions may require a larger share of adults to be working. The results also suggest that households with younger heads are more likely to be poor, which may be suggesting that they have had less time to accumulate assets. As in the Poverty Note, having a female head is associated with lower per capita income. But contrary to what was observed in the Poverty Note, households whose head has no spouse appear less likely to be poor.

Households whose head is employed have higher per capita income levels, which implies that unemployment is associated, as expected, with a drop in income. A better education clearly brings income gains, but the gains are lower for the spouse than for the head. The level of education of the head of household and of the spouse have a large positive impact on per capita income. Households living in urban areas have on average higher levels of per capita income, and the difference is likely to be robust to differences in the cost of living between urban and rural areas. By contrast, as observed and discussed in detail in the Indigenous Note, being indigenous leads to a reduction in income.

The main finding of our research for this Note is that both temporary and permanent migration are associated with an increase in per capita income. Temporary migration is observed over a period of one year. Permanent migration is observed over a five-year period. The gain from temporary migration is equivalent to 20 to 25 percent of per capita income, while the gain from permanent migration is lower, but nevertheless positive (although not statistically significant in the south). While these results have to be interpreted with caution (more detailed analytical work would be needed to better estimate the gains from migration), they suggest income gains from migration, which is of course why migrants choose to migrate in the first place. Practically, this means that efforts to reduce migration could be counterproductive. It is probably better to facilitate migration, and to provide services to improve the living conditions of temporary migrants.

**Table 4. Determinants of per Capita Income, Including Migration, Mexico 1997**

|                                 | <i>National</i> | <i>South</i>  |                                 | <i>National</i> | <i>South</i> |
|---------------------------------|-----------------|---------------|---------------------------------|-----------------|--------------|
| <b>Demographics</b>             |                 |               | <b>Land and occupation</b>      |                 |              |
| Number of babies                | - 0.29*         | - 0.34*       | Number of hectares cultivated   | 0.02*           | NS           |
| Number of babies square         | 0.02*           | 0.03*         | Number of hectares square       | 0.00*           | NS           |
| Number of kids                  | - 0.29*         | - 0.21*       | Land owner                      | - 0.39*         | - 0.45*      |
| Number of kids square           | 0.03*           | NS            | Head agricultural worker        | 0.29*           | 0.28*        |
| Number of adults                | - 0.09*         | <u>- 0.13</u> | Head self-employed or employer  | 0.26*           | NS           |
| Number of adults square         | 0.01*           | <u>0.01</u>   | Head worker, employee, or other | 0.24*           | NS           |
| <b>Household structure</b>      |                 |               | <b>Education</b>                |                 |              |
| Head of household (head) female | - 0.11*         | NS            | Head primary                    | 0.13*           | <u>0.15</u>  |
| No spouse                       | 0.40*           | 0.34*         | Head primary completed          | 0.24*           | 0.28*        |
| Age of head                     | 0.03*           | 0.04*         | Head secondary and more         | 0.54*           | 0.65*        |
| Age of head square              | 0.00*           | 0.00*         | Spouse some primary             | NS              | NS           |
| <b>Ethnicity</b>                |                 |               | Spouse primary completed        | <u>0.06</u>     | NS           |
| Indigenous                      | - 0.13*         | <u>- 0.11</u> | Spouse secondary and more       | 0.33*           | 0.45*        |
| <b>Migration</b>                |                 |               | <b>Location</b>                 |                 |              |
| Temporary migration             | 0.25*           | 0.20*         | Urban                           | 0.29*           | 0.33*        |
| Permanent migration             | <u>0.15</u>     | NS            | Constant                        | 5.02*           | 4.94*        |

NS, not statistically significant.

\* Coefficients are statistically significant at a 5 percent level, unless they are underlined (10 percent level).  
*Note:* Number of observations: 9,409 at the national level; 1,267 in the southern states. R<sup>2</sup> of 0.32 at the national level, and 0.45 in the southern states.  
*Source:* Authors' estimation using ENCASEH 1997.

## V. What Determines the Decision to Migrate?

The main determinant of migration is the expectation of better earnings at the place of destination. Yet some factors may encourage migration, while other factors may discourage it. An analysis by Gonzalez-Konig and Wodon (2002a) sheds some light on the determinants of migration in Mexico. Although the analysis was not conducted specifically for the southern states, its main findings are likely to be valid for these states. The authors use the 1997 ENCASEH to analyze the determinants of migration in Mexico. The survey is (quasi) nationally representative, but they focus on the rural sample (2,754 observations). As already mentioned, both temporary and permanent migration of household members are observed, and they affect 10.6 and 1.2 percent, respectively, of all households living in the rural areas of Mexico.

Among demographics, for both permanent and temporary migration, the variable with the largest and significant impact is the number of adults in the household, probably because it is easier for some adults to migrate while others stay with the children at home. More children between 5 and 14 years of age also leads to a higher likelihood of permanent migration. Temporary migration is more frequent when the head of household is young. This is not surprising since younger workers are more willing to take risks, and they have less to lose back at home. Permanent migration by contrast is slightly more frequent when the head of household is older (but the impact is small). This may be because the cost of permanent migration is higher, so that some savings are required, and older heads have more time to accumulate such savings. Female headship is strongly associated with permanent migration, but there may be reverse causation at work here since the permanent migration of male household members is what may have led the household to be headed by a woman in the first place. There is also some evidence suggesting that households with better-educated heads or spouses have less temporary migration, probably because they do not need to search for agricultural employment, which, as already mentioned, requires less educated laborers to engage in temporary migration.

Home ownership is positively correlated with both permanent and temporary migration, possibly because higher financial means may increase the capacity to send away household members. There is also some evidence that households with heads working in the agriculture sector are less likely to have members migrating, possibly because they need their family members to be working in their fields. Somewhat contrary to expectations, households with indigenous heads are more likely to have members migrating permanently.<sup>3</sup> As for state-

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<sup>3</sup> Permanent migration rates could be lower among indigenous households for a number of reasons. Migration is costly, and many indigenous households may not have the means to send members to other states or abroad. Beyond economic considerations, indigenous groups have a special attachment to their land, and language barriers and discrimination may further reduce geographic mobility. Migration may also be seen as a threat to a community's human capital, with return migrants potentially seen as undermining local social practices and traditions. Migration may lead to a decline in self-reliance and self-sufficiency as the community becomes dependent upon remittances.

level variables, apart from geographic variables, a higher share of urban population in a state results in more migration. States with a higher share of their population living in marginalized areas also have more migration, as would be expected. Furthermore, the higher the income level of the state, the lower the level of temporary migration, again probably because there is less need for household members in these states to find short-term employment to make a living. Controlling for all the above variables, temporary migration is lower in the south and in the North Pacific regions. Permanent migration is lower in the central and North Pacific regions.

One interesting result from the analysis of Gonzalez-Konig and Wodon (2002a) is that there is a negative impact of receiving PROCAMPO transfers on both temporary migration (significant at the 10 percent level) and permanent migration (significant at the 5 percent level). PROCAMPO is one of the largest cash transfer programs run by the government. Agricultural producers receive a fixed payment per hectare previously devoted to nine basic crops. The program was implemented in 1994, following the liberalization of the agricultural sector as agreed upon in North American Free Trade Agreement (NAFTA). The program is transitional and will be terminated in 2008. Gonzalez-Konig and Wodon (2002a) argue that the impact of a program such as PROCAMPO on migration is indeterminate a priori because its transfers may be used to pay for the cost of migration, but they can also make more attractive the decision not to migrate if it is more difficult to receive the payments upon migration. Yet they show that if there is a negative impact of PROCAMPO on migration, this impact is likely to be larger for permanent migration than for temporary migration, which is indeed what is observed in the regression analysis. According to Gonzalez-Konig and Wodon, this is essentially because the likelihood of continuing to receive the PROCAMPO transfers is higher under temporary migration than under permanent migration.

## **VI. Remittances Reduce Poverty, but the Impact on Inequality Is Less Clear**

Remittances are a key source of revenue. The Bank of Mexico calculated that US\$5.6 billion in wire transfers and money orders were remitted from international migrants in 1998. These remittances were equivalent to 50 percent of total agricultural output, 55 percent of net *maquiladora* exports, 70 percent of the value of oil exports, and 5 percent of all exports. Table 5, which provides estimates for 2001, suggests that remittances represent 1.7 percent of GDP and 6.5 percent of exports in Mexico. While these levels are below those obtained for some Central American and Caribbean countries, they are still very high. The figures probably underestimate the actual amount of remittances because they do not account for money brought back in cash person to person.

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The rise in access to consumer goods and services may also induce indigenous communities to replace their traditional crafts with factory-made substitutes, which may not be seen favorably among some indigenous groups.

**Table 5: Remittances in Mexico and other Latin American countries, 2001**

|                    | <i>Remittances (US\$<br/>millions)</i> | <i>Remittances<br/>as % of GDP</i> | <i>Remittances<br/>as % of Exports</i> |
|--------------------|--|------------------------------------|--|
| Mexico             | \$9,273                                | 1.7                                | 6.5                                    |
| Brazil             | \$2,600                                | 0.4                                | 4.0                                    |
| El Salvador        | \$1,920                                | 17                                 | 60                                     |
| Dominican Republic | \$1,807                                | 10                                 | 27                                     |
| Ecuador            | \$1,400                                | 9                                  | 20                                     |
| Jamaica            | \$959                                  | 15                                 | 30                                     |
| Cuba               | \$930                                  | 5                                  | 40                                     |
| Peru               | \$905                                  | 1.7                                | 10.6                                   |
| Haití              | \$810                                  | 24.5                               | 150                                    |
| Colombia           | \$670                                  | 0.75                               | 2.4                                    |
| Nicaragua          | \$610                                  | 22                                 | 80                                     |
| Guatemala          | \$584                                  | 3.1                                | 16                                     |
| Honduras           | \$460                                  | 7.5                                | 17                                     |
| Bolivia            | \$103                                  | 1.3                                | 6.7                                    |

Source: Inter-American Development Bank.

Remittances are an important source of income for poor families in rural areas where employment opportunities are limited and agricultural production leaves many households vulnerable to seasonal conditions. To measure the impact of remittances on poverty, we can use state sample data from the 12th National Census carried in 2000 by INEGI. These data can be downloaded from the web. They consist of a 7 percent sample file of the Census for each state. The data provide measures of per capita income at the household level. The sources of income that are taken into account to estimate per capita income are labor income, pensions, remittances or private transfers from family members living abroad, remittances or private transfers from family members living in Mexico, income from PROCAMPO or PROGRESA (both transfers are lumped together in the questionnaire), and income from rents and capital.

Additionally, it is feasible to estimate allocations from FISM to municipalities according to the formula published in the Fiscal Coordination Law. According to this law, for 2002, if per capita income is below \$419.76 pesos per month, the household should be considered poor. This is the poverty line used in Table 6. Both this poverty line and the income aggregate used for poverty measurement in the Census differ from those based on the ENIGH survey and used in the Poverty Note. Hence the results presented here are not comparable with those of the Poverty Note. Still, the impact of remittances on poverty can be illustrated and compared with the impact of other income sources.

The results in Table 6 differ substantially for each of the three states. In Guerrero, households benefit from large amounts of international remittances (37.7 pesos per person per month on average). The size of international remittances in Oaxaca is smaller (13.7 pesos per month per person), and it is almost zero in Chiapas (2.6 pesos per month per person). The mean amount of remittances from within the country is more similar between the three states (12.4 pesos per month per person for Oaxaca, versus 11.7 pesos in Guerrero, and 8.6 pesos in Chiapas). While the amounts of remittances for households in poverty are much lower, meaning that richer households tend to have much higher levels of remittances, they do contribute to reducing poverty levels.

In Guerrero and Oaxaca especially, where remittances are higher, the share of the population in poverty, as well as the poverty gap (which takes into account the distance separating the poor from the poverty line) and the squared poverty gap (which takes into account inequality among the poor) are reduced by approximately 2 percentage points thanks to remittances. This may not appear to be a very large impact on poverty, but it is as large, if not larger, than the impact of PROCAMPO and PROGRESA as measured in the Census data. Also, the impact on poverty of remittances is almost as large as the potential value of the transfers provided to municipalities through FISM, assuming for the transfers an equal per capita distribution within municipalities, no administrative costs or leakages, and a value for the households of the projects carried by FISM equal to their cost. In other words, one could say that private transfers through remittances in the southern states may well matter as much as public government transfers for poverty reduction.

**Table 6. Impact of Remittances on per Capita Income and Poverty Measures in Mexico's Southern States, 2000 Census**

|                               | <i>Income and Poverty without International Remittances</i> | <i>Income and Poverty without Local Remittances</i> | <i>Income and Poverty with No Remittances At All</i> | <i>Income and Poverty without PROCAMPO and PROGRESA</i> | <i>Actual Income and Poverty as Observed in Census in Data Files</i> | <i>Income and Poverty with Equal FISM Transfers per Capita</i> | <i>Income and Poverty with Equal FISM Transfers per Household</i> |
|-------------------------------|---|---|--|---|--|--|---|
|                               | <b>Chiapas</b>  |   |  |   |  |  |   |
| Number of poor (thousands)    | 2507  | 2516  | 2521   | 2536  | 2502   | 2407   | 2401  |
| Headcount, %                  | 68.5  | 68.7  | 68.8   | 69.2  | 68.3   | 65.7   | 65.5  |
| Poverty gap, %                | 46.0  | 46.3  | 46.4   | 48.5  | 45.9   | 36.6   | 37.1  |
| Squared poverty gap, %        | 36.7  | 37.1  | 37.2   | 40.3  | 36.6   | 24.5   | 25.3  |
| Per capita income             | 609.0   | 602.5   | 600.4  | 573.0   | 611.1  | 658.2  | 658.2   |
| Per capita income, poor only  | 129.5   | 128.6   | 128.4  | 117.2   | 129.7  | 184.2  | 181.9   |
| Income from source            | 2.1   | 8.6   | 10.7   | 38.1  | —  | 47.1   | 47.1  |
| Income from source, poor only | 0.2   | 1.1   | 1.3  | 12.5  | —  | 67.0   | 52.2  |
|                               | <b>Guerrero</b>   |   |  |   |  |  |   |
| Number of poor (thousands)    | 1593  | 1573  | 1615   | 1570  | 1552   | 1484   | 1484  |
| Headcount, %                  | 55.6  | 54.9  | 56.3   | 54.7  | 54.1   | 51.7   | 51.8  |
| Poverty gap, %                | 37.9  | 37.0  | 38.7   | 38.1  | 36.3   | 29.1   | 29.5  |
| Squared poverty gap, %        | 31.2  | 30.3  | 32.0   | 32.2  | 29.6   | 20.1   | 20.7  |
| Per capita income             | 727.9   | 753.9   | 716.2  | 749.5   | 765.7  | 807.0  | 807.0   |
| Per capita income, poor only  | 125.6   | 128.1   | 123.4  | 118.2   | 130.3  | 183.7  | 181.3   |
| Income from source            | 37.7  | 11.7  | 49.4   | 16.1  | —  | 41.3   | 41.3  |
| Income from source, poor only | 4.7   | 2.3   | 7.0  | 12.1  | —  | 53.4   | 50.9  |
|                               | <b>Oaxaca</b>   |   |  |   |  |  |   |
| Number of poor (thousands)    | 2043  | 2043  | 2069   | 2040  | 2018   | 1942   | 1937  |
| Headcount, %                  | 63.4  | 63.4  | 64.2   | 63.3  | 62.6   | 60.3   | 60.1  |
| Poverty gap, %                | 44.4  | 44.4  | 45.4   | 45.8  | 43.4   | 34.6   | 35.0  |
| Squared poverty gap, %        | 36.7  | 36.8  | 37.8   | 39.2  | 35.8   | 23.8   | 24.5  |
| Per capita income             | 547.9   | 549.2   | 535.7  | 542.5   | 561.4  | 606.8  | 606.8   |
| Per capita income, poor only  | 118.5   | 118.2   | 115.6  | 107.6   | 121.0  | 177.6  | 175.6   |
| Income from source            | 13.7  | 12.4  | 25.9   | 19.2  | —  | 45.1   | 45.1  |
| Income from source, poor only | 2.5   | 2.8   | 5.4  | 13.4  | —  | 56.6   | 54.6  |

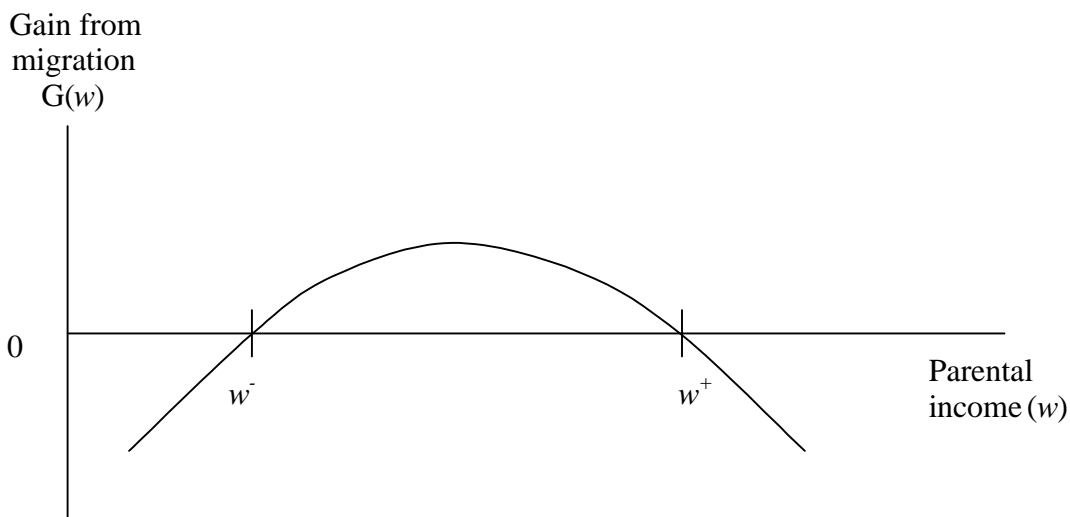
— Not applicable

Source: Authors' estimation using Mexico 2000 Census sample data files.



While remittances must reduce poverty (as compared with a situation with migration but no remittances), their impact on inequality is not clear a priori. To understand this, Figure 3 from Gonzalez-Konig and Wodon (2002b) is useful. The figure presents a stylized relationship between the income level of parents at home and the gain from sending one household member to migrate. For very low income levels, the cost of migration is too high, so the household chooses not to send any member away, essentially because large sacrifices would have to be made in terms of current consumption to pay for the cost of migration. For very high income levels, the wage at the place of destination is too low to yield income gains for the household in comparison to what household members can earn at home, so that there is also no migration at that level.

**Figure 3. Hypothetic Location of Households with Migrants in the Distribution of Income**



Source: Gonzalez-Konig and Wodon (2002b)

The result of the intuition behind Figure 3 is that migration should be concentrated among households with middle-level incomes. This intuition seems to be corroborated by basic statistics on the living conditions of households with and without international migrants in Table 7. As was the case with Table 6, the data are from Mexico's 2000 Census sample files. Given that there should be both poor and rich households without migrants, we may not be able to clearly state whether households with migrants are richer or poorer than households without migrants. Inspection of Table 7 suggests that this is the case in the three southern states taken as a whole. For some indicators and states, households with migrants are doing better than households without migrants, while the reverse is observed for other indicators and states.

**Table 7. Characteristics of Households with and without International Migrants, 2000 Census**

|                             | <i>Chiapas</i>                  |                                    | <i>Guerrero</i>                 |                                 | <i>Oaxaca</i>                   |                                    |
|-----------------------------|---------------------------------|------------------------------------|---------------------------------|---------------------------------|---------------------------------|------------------------------------|
|                             | <i>Households with Migrants</i> | <i>Households without Migrants</i> | <i>Households with Migrants</i> | <i>Households with Migrants</i> | <i>Households with Migrants</i> | <i>Households without Migrants</i> |
| Per capita income           | 699.2                           | 653                                | 724.5                           | 830.2                           | 662.8                           | 599.6                              |
| Years of schooling (age 6+) | 4.3                             | 4.7                                | 4                               | 5.2                             | 3.6                             | 4.7                                |
| Literacy rate, %            | 80.8                            | 78.2                               | 74.5                            | 80.0                            | 79.5                            | 80.9                               |
| Bedrooms per household      | 1.8                             | 1.6                                | 1.5                             | 1.8                             | 1.9                             | 1.6                                |
| Lack of sanitation, %       | 33.6                            | 44.8                               | 57.2                            | 0.6                             | 65.2                            | 61.9                               |
| Access to electricity, %    | 94.4                            | 86.4                               | 92.1                            | 86.2                            | 93.5                            | 82.7                               |
| % Households with migrants  | 1.0                             | 91.00                              | 8.10                            | 86.70                           | 5.1                             | 86.8                               |

*Source:* Authors' estimation using Mexico 2000 Census sample data files.

The fact that middle-income-level households are more likely to migrate also makes it difficult to predict a priori the impact of remittances on inequality, since this impact depends on where exactly households (with migrants) are located in the distribution of income. If households with migrants are relatively poor, remittances may decrease inequality since they will be received by poorer households. By contrast, if households with migrants are richer, remittances may increase inequality. What can be argued, however, is that remittances should be more inequality increasing (or less inequality reducing) in poorer versus richer areas. In the case of Mexico's southern states, remittances could well be inequality increasing, even if we don't see striking differences in terms of the profile of households with migrants in Table 7. We did not estimate the impact of remittances on inequality using the Census data in this Note, but Table 6 shows that the amount of remittances received by all households (and thus nonpoor households) is larger than the corresponding amount received by the poor, which may indeed increase inequality.

## **VII. Remittances Have the Potential to Contribute to Local Development<sup>4</sup>**

The economic literature has not reached a consensus about the impact of remittances on local development in Mexico. Critics of international migration stress that while remittances may increase individual and household income, it rarely enables communities to emerge from a marginal position. Some studies have found that remittances are directed toward consumption rather than productive investments. Durand and Massey (1992), in a review of 37 different case studies about U.S.-Mexican migration, find that remittances are often spent on basic needs, the remodeling of houses or construction, and the purchase of consumption goods. Durand and others (1996) find that 76 percent of households in western Mexico spent remittances on consumption alone. This has prompted researchers to see migration as little more than a

<sup>4</sup> This section benefited from input from Victoria Malkin.

palliative to rural poverty, and as lacking any role in the creation of new productive opportunities or in the stimulation of local economic development.<sup>5</sup>

Yet, in order to have a fair assessment of the use of remittances, the above figures should be compared with the use of other sources of income. In this respect, case studies from other countries are revealing. Using data from Honduras, Wodon, Gonzalez-Konig, and Siaens (2002) find that remittances are used much more than other sources of income for housing improvements, which can be considered as investment. Using data from Bolivia, Gonzalez-Konig and Wodon (2002c) find that remittances are used more than other sources of income for investments in children's schooling. In both cases, the results are not surprising if one thinks about the fact that a better house and better-educated children also benefit the migrant (upon return), while consumption expenditures do not. In other words, in order to continue to receive remittances, household members at the place of origin have an incentive to spend the proceeds on investment goods that benefit both themselves and the migrant.

There is also research suggesting that even without productive investments, remittances may stimulate the local economy through the increased demand for local and national goods. Durand, Parrado, and Massey (1995) use a social accounting matrix to estimate the multiplier effect of US\$2 billion remitted into the Mexican economy at that time. They estimate that remittances generated US\$6.5 billion of additional production in Mexico. They find, however, that most of the multiplier effect benefited urban producers and skilled workers. The multiplier also depended on how the local economy was connected to capital markets and on the households' initial assets (Taylor 1995; Taylor and Wyatt 1996), as richer households may be more able to reap the benefits of increased local economic activity thanks to remittances. Meanwhile, although initial assets may be key in determining the marginal effect of remittances on household income, the value of remittances may be larger for households that have illiquid assets, and hence use remittances to loosen production constraints.<sup>6</sup>

More generally, as illustrated among others by Taylor and others (1996a, 1996b), the "New Economics of Labor Migration" emphasize migrants as social actors using migration as one of several activities in a portfolio that enables household members to combat poverty and alleviate risk. For example, households migrate when their access to credit and other capital

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<sup>5</sup> Reichert (1982) has described a "migrant syndrome" whereby migrants become a privileged class of rural residents who do little to reduce poverty and inequality among nonmigrants. Furthermore, as international migrants spend their income on foreign goods, dependence on foreign imports is said to be increasing. In the long term, at the local level, international migration may do little to reduce further migration and benefit nonmigrant households.

<sup>6</sup> Taylor (1995) uses village-level data from 1988 to show that U.S. remittances favor large and small landholders differently. Small landholders received on average 56 cents out of every dollar remitted, but this increased to 84 cents through the indirect effects (originating from the increased demand for local goods such as corn and beans, the increased demand for labor, the increased need for small outlets in the community). Large landholders received 39 cents out of every dollar remitted, and this increased to 67 cents through the indirect effects. Landless households only received 4 cents out of every dollar remitted, which increased to 7 cents through the indirect effects. Thus, landless households appear to benefit the least from remittances (see also Adams 1998). First, they receive less remittances. Next, they fail to benefit from the increase in local demand that remittances generate. Finally, it has been observed that many migrant households choose to increase their own labor input on family farms rather than use hired labor to compensate for a household member's absence. This means that the landless also fail to benefit from the extra employment or wage increases that could be predicted from the reduction in the local labor supply.

ventures is limited in their place of origin. Migration is also seen as a means for households to increase their productive output, as opposed to being a survival strategy alone. Individuals migrate in order to overcome market failures that constrain local production. With matched longitudinal data of a rural village between 1982 and 1988, Taylor (1992) used Gini decompositions to show that although international migration may at first have a less than unitary relation with income, six years later migrant remittances have a greater than unitary relation with household income. While the initial loss of a household member's labor may not be compensated for by remittances, after some time the household farm may be able to adjust and use the accumulated remittances to increase its productivity. The change in productivity of rural households can be partially explained by an increase in the number of cattle. De Janvrey, Sadoulet, and Gordillo (1997) also find that small farmers in the communally held farm lands (*ejido*) sector with migrants invest in cattle as an accumulation strategy.

There is also evidence that some households use international remittances to start businesses. Durand, Parrado, and Massey (1995) report anecdotal evidence showing that remittances from the United States are used for the creation of small businesses. Escobar and Martinez (1988) find that 31 percent of migrants surveyed in a *colonia* (neighborhood) in Guadalajara used U.S. migrant remittances to help set up a business. The probability that households will use their remittances on productive investments depends on both local and household characteristics. In their analysis of data from western Mexico, Durand, Parrado, and Massey (1995) found that remittances and savings were spent more productively if a migrant already owned land, a business, or a home. In a further study, Massey and Parrado (1998) look specifically at entrepreneurial activity of migrant households and find that U.S. migration increases the probability of forming a business by 3 percent a year, but those most likely to do so have higher human capital and live in economically active areas.

### **VIII. Government Programs Can Help to Increase the Impact of Remittances**

Remittances from the United States can be sent by migrants to specific households. But they can also be sent to communities through so-called Home Town Associations. These associations collect funds abroad in order to use them for social programs at the place of origin. Some associations are fairly sophisticated, raising large amount of funds (see the work by Alarcón and others [1998]). The government's 3x1 Program is an attempt harness the expertise and fundraising power of these associations for investments in projects promoting local economic development. Specifically, the program encourages international remittances by matching every peso contributed to the program by a foreign NGO at the federal and local levels, so there are three pesos in resources for the project. The program is in principle targeted to projects of social development within regions of extreme poverty. More precisely, while the exact regions or municipalities where projects are implemented depend on the choice of the NGO, the government gives preference to projects that are carried out in the microregions defined by SEDESOL.

To be eligible for the 3x1 Program, projects must (a) be presented by an NGO with the consent of the community and the local government; (b) be equally financed by the NGOs, the local government (state of municipality), and the federal government; (c) improve infrastructure or basic services, or enhance productivity and job creation; and (d) not duplicate other existing

projects and benefit populations already reached by other programs. To guarantee transparency, project selection is conducted by a committee with representatives of NGOs, SEDESOL, and local authorities. These committees seek input from the communities, and the communities are in charge of monitoring the projects. For this, they must issue periodic reports on implementation and use of resources. Once projects are completed, the committee is responsible for ensuring proper maintenance. The state development planning agencies (*Comité de Planeación para el Desarrollo del Estado*—COPLADEs) are involved in the evaluation of proposed projects on behalf of SEDESOL. This is done not only to ensure quality at entry of the projects, but also to avoid duplication.

In principle, the maximum financial contribution of the federal government is 250,000 pesos per project. This is also the maximum amount matched by local authorities. Larger projects can be approved by a central technical committee, but in all cases, the contribution of the federal government may not exceed 40 percent of total costs. For monitoring and supervision purposes, SEDESOL contributes financial resources of up to 7 percent of the program's costs. NGOs must submit proposals to COPLADE and to the state delegation of SEDESOL. Foreign organizations submit their projects to offices of the Mexican government abroad (consulates), which then pass the information to the respective local government and SEDESOL for evaluation and approval.

While the program has potential, only 7.6 percent of the program's budget for 2002 was targeted to the states of Chiapas, Oaxaca, and Guerrero. This amount also represents 8 percent of the total budget allocated to these three states by SEDESOL for implementing social programs. Given the relatively high rates of poverty in these states, these amounts are not especially large, perhaps because of a lack of NGOs applying for projects, or because of lower rates of international migration than in some other states, or both. The program has higher potential in states such as Zacatecas, with a strong organized civil society of international migrants in the United States. In 1982, four Zacatecas NGOs operating in Los Angeles decided to create the L.A. Federation of Mexican Clubs. In 1986, the Federation of Zacatecan Clubs in California was founded with a total of 17 NGOs. Since then, the federation has continued to grow, and it has funded many projects to benefit the state of Zacatecas. Some of these projects are presented in Annex 1 for illustration (the average cost of projects funded by the 3x1 Program is half a million U.S. dollars).

Today, according to the Worldwide Association of Mexicans Abroad (AMME; 2002), Zacatecas has more than 240 active NGOs operating mainly in Atlanta, Austin, Chicago, Dallas, Denver, Los Angeles, San Bernardino, San Francisco, and Santa Ana. By contrast, there are only 131 NGOs in the United States whose mission is to help development of the three southern states. Among the three southern states, Guerrero is the state with the largest amount of international remittances, and it is also the state with a larger number of NGOs promoting local development. In Chicago, for example, of 120 NGOs working with the Mexican consulate, 35 operate in Guerrero. Oaxaca also has a number of active NGOs, especially from California (Alarcón 2000).

## IX. Initiatives to Reduce the Cost of Remitting Should Also Increase Impact

Whether remittances are sent to households or communities through Home Town Associations or privately, the cost of remitting can be high. According to Orozco (2002b), fees charged and exchange rate costs can add up to 15 percent of the amount of remittances sent. This estimate is based on a study performed with more than 70 firms handling remittances for 10 Latin American countries, including Mexico. The cost is substantial because many emigrants to the United States are poor (according to the 2000 U.S. Census, more than 60 percent of all Latino households earned less than US\$35,000 a year), so they cannot afford to remit large amounts of money. Almost half (46 percent) of Latin immigrants in the United States don't have good banking services. Thus, many immigrants cash their salary check at check-cashing stores and then use part of their income to send remittances back home. In the process, they are penalized twice.

The cost of sending US\$200 varied in Orozco's sample from US\$7 to US\$26 depending on the firm and country. The cost in percentage terms is higher for smaller amounts of remittances, which is problematic since two thirds of all remittances sent are for transfers less than US\$250. Table 8 gives details on the distribution of fees and exchange rate costs for various countries. Transaction costs are lower in Mexico because competition between firms is higher, but even here they remain substantial.<sup>7</sup> Some firms mislead clients by advertising low transfer fees, but in fact charge high fees for exchange without revealing this in a transparent and straightforward way.

**Table 8. Fee Charged in Percentage Terms for a US\$200 Remittance, 10 Countries, 2001**

|                | <i>Under 5%</i> | <i>5 to 7%</i> | <i>7 to 9.5%</i> | <i>Over 9.5%</i> |     |
|----------------|-----------------|----------------|------------------|------------------|-----|
| Mexico         | 56.0            | 24.0           | 20.0             |                  | 100 |
| Guatemala      | 40.9            | 22.7           | 22.7             | 13.6             | 100 |
| El Salvador    | 38.1            | 23.8           | 23.8             | 14.3             | 100 |
| Colombia       | 25.0            | 25.0           | 25.0             | 25.0             | 100 |
| Dominican Rep. | 10.0            | 10.0           | 43.3             | 36.7             | 100 |
| Haiti          | 20.0            |                | 40.0             | 40.0             | 100 |
| Jamaica        | 14.3            |                | 42.9             | 42.9             | 100 |
| Nicaragua      | 38.5            | 7.7            | 7.70             | 46.2             | 100 |
| Cuba           |                 |                |                  | 100.0            | 100 |
| All countries  | 32.6            | 16.3           | 27.1             | 24.0%            | 100 |

Source: Orozco 2002b.

Even NGOs suffer from the high cost of remitting. A study by the North American Integration and Development Center at UCLA, based on focus group discussions with members of six NGOs from Zacatecas and five from Jalisco residing in Metropolitan Los Angeles, reveals

<sup>7</sup> The competition in Mexico ranges from small business to large corporations, with banks entering into the remittances market. For example, the Commerce Bank (*Banco de Comercio*—BANCOMER), the Foreign Commerce Bank of Mexico (*Banco de Comercio Exterior de México*—BANCOMEX), and the National Bank of Mexico (*Banco Nacional de México*—BANAMEX) offer direct money transfer services and work jointly with money transfer companies such as MoneyGram. Western Union has gradually lost market share in Mexico because of the entrance of these new competitors. Thanks to competition, Mexico is the country offering the lowest fees (56 percent of all transactions have a fee of less than 5 percent of the amount in Table 8).

that this is why NGOs prefer to use informal mechanisms to send money for investment projects in Mexico. According to Alarcón (2000), on one occasion the members of Club Mesillas from Zacatecas sent US\$2,000 to support a project in their town. Since they had to send the money quickly, they used the services offered by Western Union. Members from the club at home picked up the money in a store, receiving only 7.50 pesos for each dollar, while the official exchange rate was 8.50 pesos per dollar. The service fee was US\$64. Now, members of the club in the United States send the funds using personal checks through friends in the community.

A number of new initiatives have been taken by the government, multilateral organizations, and private operators to reduce the cost of remitting. With a grant from the Inter-American Development Bank, the Bank of National Savings and Financial Services (*Banco del Ahorro Nacional y Servicios Financieros*—BANSEFI) will soon upgrade its technological capabilities to install a new ATM rural network. The program is designed to help small and medium entrepreneurs access remittances and open new lines of credit. Another recent initiative is a partnership established between the National Bank of Mexico (BANAMEX) and Citibank to facilitate financial transactions between the United States and Mexico. Clients of Citibank who have an account and a credit card can now transfer money from their account in the United States to any of the 1,400 branches of BANCOMEX in Mexico. The transactions can be done through the web, whether the receiver has or does not have an account in Mexico. The service offers a guaranteed rate of exchange. The partnership is also offering a new line of credit that allows clients in the United States to borrow and transfer money to Mexican counterparts who can then disburse the funds for housing improvements. These types of initiatives are expanding credit in Mexico and contributing to the productive use of remittances.

## **X. Conclusion**

Because migration yields the promise of higher earnings, it may help poor households to emerge from poverty. Migration can also be used by households to overcome credit constraints resulting from market imperfections. For households living in isolated locations with no access to loans, migration may be the only alternative to obtain capital to invest, be it in entrepreneurial ventures, housing, or land. Migration is also a strategy used to cope with shocks. This is true whether migration is permanent or temporary, internal or international. During periods of crisis, households often reorganize themselves in order to reduce spending and diversify their sources of income, in part through migration.

Yet migration can also have negative effects. It may lead to long periods of separations within families, with heads of household or other members living away, and possibly providing for two households, one at the place of origin and one at the place of destination. Without remittances, migration may leave those left at home with fewer resources, forcing children to drop out of school and engage in various forms of labor. As for the migrants, they may be forced to live in poor housing conditions at their place of destination. And although on average migration may bring earnings gains, it also leads to higher risk and vulnerability, especially if the migrant individuals or households are young, poorly educated, and lacking good social networks.

Analyzing all these potential benefits and costs of migration in the southern states was well beyond the scope of this Note. But the Note does present some important facts or findings: (a) the three southern states differ in terms of their migration profile, but they all have large net emigration flows, both permanent and temporary, in the latter case through agricultural workers who tend to be poor; (b) migration typically leads to a substantial increase in per capita income for the household members staying at the place of origin; (c) there are clear determinants of migration, both in terms of the profile of migrants, and the characteristics of the states sending migrants; (d) remittances lead on average to a reduction in the share of the population of poverty of 2 percentage points, which is similar to the impact of public transfer programs such as PROCAMPO, PROGRESA, and FISM; (e) while the evidence of the literature on the impact of remittances on local development is mixed, initiatives such as the 3x1 Program and new ways to reduce the cost of remitting have the potential to increase the impact of remittances. While these findings do not amount to a policy agenda with respect to migration for the southern states, they provide elements of a diagnostic which could be used for developing such a policy agenda.



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## Annex 1. Home Town Associations: Examples of Projects Implemented by the Federation of Zacatecan Clubs in California

Construction of  
a Public Library  
US\$267,800



Construction  
of 5 km of Paved Road  
from San Jerónimo  
to Abrego  
US\$2,829,454



Perforation of a  
Well for  
Drinking Water  
US\$359,790



Extension of the  
Electrical Net  
in Santa Juana  
US\$180,297



Construction of  
a Center for  
Secondary  
Education  
US\$1,348,315



Construction for Two  
Classrooms  
for Telesecondary  
Education  
in la Pitahaya  
US\$213,300



Source: Federation of Zacatecan Clubs in California. ([www.federacionzacatecana.com](http://www.federacionzacatecana.com)).