



MIGRATION INFORMATION SOURCE

FRESH THOUGHT, AUTHORITATIVE DATA, GLOBAL REACH

In Mexico, Mother's Education and Remittances Matter in School Outcomes

By Adam Sawyer
Harvard Graduate School of Education

March 29, 2010

Since 1980, Mexican immigrants have been the largest immigrant group in the United States. According to the US Census Bureau's American Community Survey, 11.4 million Mexican-born people lived in the United States in 2008, about 10 percent of Mexico's population and about a third of the foreign-born population in the United States.

While scholars and policymakers have focused on how Mexican immigration affects all aspects of life in the United States, how this movement has reconfigured such domains in Mexican society has received relatively scant notice.

Preliminary scholarship on migration's impact on Mexico suggests that migration brings both costs and benefits to the nation as a whole, and for the communities from which migrants depart. While out-migration can entail human capital loss, break down communities and families, and exacerbate existing inequalities, it can also bring human capital and income to needy migrant-sending communities.

Yet much remains to be learned about the extent and complexities of the changes migration to the United States has caused. Remittances provide a useful independent variable as they are one of the most concrete and tangible results of migration. Also, remittances are hypothesized — based on both direct and indirect evidence — to boost educational opportunity within migrant-sending communities.

This article, by examining how remittances affect schooling outcomes in one migrant-sending community in the southern Mexican state of Oaxaca, contributes to existing knowledge of how migration is related to development in Mexico.

Remittances alone do not appear to influence a child's educational aspirations and attainment, but the effect of remittances is related to the mother's education. Specifically, receiving remittances is associated with increased schooling aspirations for youth whose mothers have *below-average* levels of education. Remittances also provide an apparent boost in improving the chances of high school completion for youth whose mothers have *above-average* levels of education.

In other words, having remittances to pay for schooling expenses can help, but only in conjunction with other scholastically important aspects of a youth's background. Thus, money alone does not improve schooling outcomes in the educationally marginalized, migrant-sending regions of southern Mexico.

Remittances and Educational Opportunity in Mexico

Observers have noted that international migrants often keep a foothold in their country of origin and the one in which they settle, a process that affects both places. Remittances, money migrants send to loved ones in the origin country, are one of the most concrete manifestations of these "transnational" ties.

In Mexico, remittances totaled US\$23.9 billion in 2007 according to the National Bank of Mexico, making them the second largest source of foreign trade after tourism. Also, remittances represented 3 percent of the nation's gross domestic product.

How much remittances help migrant families in Mexico is a matter of debate. As research has shown, they allow families to meet expenses they otherwise might not be able to afford. But remittances also appear in some cases to increase existing inequalities and come at the cost of family separations.

In terms of education, preliminary studies have found that remittances are used to pay for schooling in some Mexican migrant households — but usually after the more immediate needs of food, shelter, and clothing have been met.

Remittance income is relevant to schooling in Mexico because students in rural areas, especially at the higher grade levels, have to pay tuition. Compulsory education laws in Mexico only require school attendance through ninth grade. This means the government subsidies that provide textbooks and other forms of assistance to schools and families in the compulsory grades are mostly unavailable for high school.

For example, in San Miguel Tlacotepec, Oaxaca — the field site for this study — expenses at the high school level are roughly \$21 per month per family, or 8 percent of monthly per capita income.

Given these financial obstacles to attending high school, some researchers and policymakers have hypothesized that remittances can help families in mostly rural, migrant-sending communities meet educational expenses, reduce the need for child labor, and ultimately increase school enrollment and attainment.

No previous study has directly measured whether remittance income in Mexico is related to its recipients having higher educational outcomes than children whose families receive no remittances. There are, however, several nationally representative and multisite studies that have gotten at the question indirectly by comparing students from migrant families to those from nonmigrant households in regards to schooling attainment, performance, and aspirations.

The results from these studies have been inconclusive.

For example, in 2002, economist Gordon Hanson found on a national level — using Mexican census data — that after controlling for other factors, students from migrant households attained more schooling on average than their nonmigrant counterparts.

But economists David MacKenzie and Hillel Rapoport found nearly the opposite in their oft-cited 2006 examination of a Mexican government-commissioned longitudinal household survey. Members of migrant households had lower schooling aspirations and probabilities of completing lower and upper secondary schooling compared to those without family members living in the United States. While migration negatively affected both genders in terms of schooling, outcomes for males dropped much more dramatically than those for females.

One possible reason remittances failed to boost education outcomes might be that youth — especially young men — with a family member in the United States prefer to join that family and participate in the US labor market rather than continue their own education.

While these studies provide some insight into the role remittances may or not be playing in schooling, they do not measure their impact directly. That is, it is not known which families identifying as "migrant" actually receive remittances on a regular basis. Thus, it is impossible to discern how much of these findings are actually related to remittance income. This study attempts to fill this gap in the research literature by comparing education outcomes for self-identified remittance receiving households to those that do not receive remittances.

Methodology

To test whether remittances boost the educational outcomes of Mexico-based recipients, I compared average educational aspirations and high school completion rates for remittance- and nonremittance-receiving youth in San Miguel Tlacotepec, a rural indigenous municipality of 1,696 people in southern Mexico.

While people from Tlacotepec have long migrated to other regions of Mexico, this movement has increasingly flowed to the United States rather than to internal destinations since the 1980s (see Figure 1).

Figure 1. History of Migration from San Miguel Tlacotepec, Oaxaca



As a result, strong transnational ties and migrant-generated wealth are not as developed as they are in "traditional" migrant-sending communities in states such as Jalisco, Michoacán, Zacatecas, and Guanajuato, where large-scale migration to the United States dates as far back as World War II. Thus, it might be possible to detect a remittance effect on education in Tlacotepec, though perhaps not to the extent one might find within an older migrant-sending community.

Data for Tlacotepec came from the University of California, San Diego's Mexican Migration Field Research and Training Program's (MMFRP) 2007-2008 survey (more on MMFRP [here](#)). This 158-item questionnaire, conducted in both Tlacotepec and Vista, California (a city north of San Diego where most *Tlacotepense* in the United States live), examined issues related to education, health, migration and settlement behavior, and transnational ties. It was possible for this author to design the education portion of a survey of Tlacotepec, making it the ideal place to test ideas about education and remittances.

In all, 820 individuals between the ages of 15 and 65 responded to the survey, including all known members of this age group still residing in Tlacotepec and a sample of the Tlacotepense migrant community in California. In addition to remittance status, the MMFRP survey allows researchers to compare individuals across different background variables.

For the question of education aspirations, I limited the MMFRP sample to the 133 youths 15 to 19 who were still in school. The next step involved comparing average educational aspirations between remittance and nonremittance receivers, then examining two variables that have emerged as the the most salient predictors of education outcomes in the migrant-sending regions of Mexico: the mother's education level and the gender of the individual. Analysis included controlling for factors like age, birth order, and participation of the youth's household in the government's antipoverty cash-transfer program *Oportunidades* (Opportunities).

Data for high school completion rates came from a subsample of 132 remittance- and nonremittance-receiving youth between 18 and 22; the same variables (e.g., mother's education) were used to assess the results.

San Miguel Tlacotepec: Remittances and Poverty

Before delving into the findings, it is important to know more about San Miguel Tlacotepec.

Mexican government statistics report that 353 Tlacotepenses emigrated to the United States between 1995 and 2000, followed by an additional 712 between 2000 and 2004. While young men traditionally — and generally continue — to make up most of the flow, working-age women (over 18) have begun to compose a larger percentage of the town's emigrants.

For these reasons, mainly senior citizens, some working-age women, and young children live in Tlacotepec, whose economy depends greatly on remittances. In 2008, 47 percent of the town's residents (and 89 percent of those with immediate family members in the United States) reported receiving remittances, while 72 percent of the municipality's US-based migrants reported

remitting money to their families in San Miguel Tlacotepec.

Tlacotepense remittance senders reported in the MMFRP survey that they remitted an average of \$350 per month in 2008, though amounts and frequency of remittances varied widely.

The Mexican government measures poverty by its Marginalization Index, which includes such factors as literacy rates, condition of dwellings, and access to basic services such as plumbing, electricity, and drinking water. San Miguel Tlacotepec is considered a "highly marginalized" municipality, the second highest degree of poverty. In 2005, 47 percent of Tlacotepense families lived in dwellings with dirt floors, 32 percent of adults in the town were illiterate, and another 57 percent lacked a complete elementary school education.

For residents of Tlacotepec, remittances first go to basic needs like food and shelter, with education as a secondary use. Nevertheless, in 2008, 33 percent of households reported using remittances for schooling expenses.

Education in San Miguel Tlacotepec

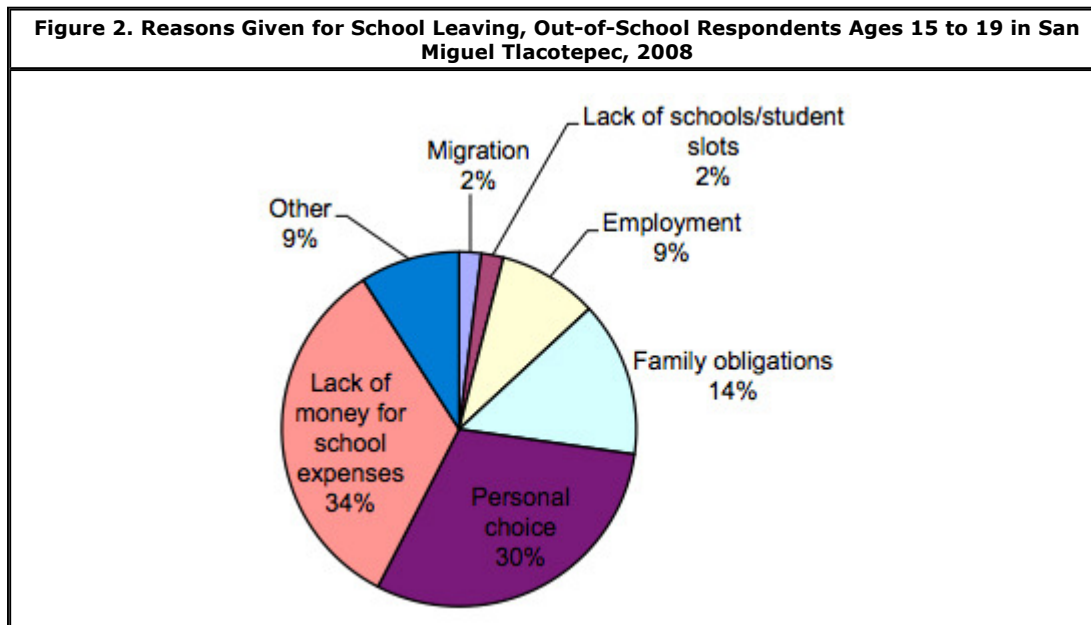
Tlacotepec is similar to many other comparable destinations in Mexico where national investments to expand education access have taken hold. The town now has more schools than a few decades ago, and educational attainment for boys and girls has increased. Yet its students still lag well behind state and national averages across a range of education indicators. For example, educational attainment is only 6.7 years of schooling on average compared to 8.1 years nationwide (see Table 1).

Table 1. Selected Education Indicators in Mexico by Place, Population Age 15 and Older, 2005

Indicator	Mexico	Federal District	Oaxaca	San Miguel Tlacotepec
Literacy rate	90.5	97.0	80.6	68.2
Percent attended school	91.6	97.0	93.6	87.0
Percent incomplete primary	14.3	6.5	20.6	57.0
Average years of schooling attained	8.1	10.5	6.4	6.7

Source: INEGI, CONAPO.

Economic constraints apparently remain a significant barrier to educational opportunity in Tlacotepec, as nearly a third of the out-of-school population said they left school due to financial constraints and another 9 percent because they began working (see Figure 2).



Source: Mexican Migration Field Research and Training Program, 2008.

In 2008, 65 percent of Tlacotepenses between the ages of 15 and 19 had completed the compulsory junior high level, while only 13 percent of 18-to-22-year-olds had completed high school, and just 7 percent of 22-to-30-year-olds had attended college (Note: it was possible to capture education data for older offspring as long as one parent still lived in Tlacotepec).

Although high school and college degrees are increasingly needed to access stable, well-paying professional opportunities in Mexico's cities, such credentials are not necessary for entry-level work in the US agricultural and construction industries that many young Tlacotepenses see as their most probable future.

Remittances and Education Aspirations

Remittance receivers and nonremittance receivers aspired to complete 15.3 years of schooling — roughly the third year of college in Mexico (see Table 2). In terms of gender, girls, regardless of whether their families receive remittances, had slightly higher education aspirations (15.5 years) than boys (15 years). Remittances did not appear to significantly affect this gender breakdown.

Table 2. Mean Levels of Education Aspirations (Years of Schooling Attainment Desired) for San Miguel Tlacotepec Youth Ages 15 to 19 by Gender and Remittance Status, 2008

	Boys	Girls	All youth 15 to 19
Remittance receivers	15	15.5	15.3
Nonremittance receivers	15	15.5	15.3
Total	15	15.5	15.3

Source: MMFRP, 2008.

While remittance-receiving status did not make a difference in aspiration, the mother's education level did matter. Children in school whose mothers had more than 4.8 years of schooling — the average in San Miguel Tlacotepec — aspired to a full year more of schooling (15.8 years) than those with below-average maternal education (14.8 years) (see Table 3).

Table 3. Mean Levels of Education Aspirations (Years of Schooling Attainment Desired) for Youth Ages 15 to 19 in San Miguel Tlacotepec by Maternal Education and Remittance Status, 2008

	Less than 4.8 years of maternal education	More than 4.8 years of maternal education	All youth 15 to 19
Remittance receivers	15.4	15.2	15.3
Nonremittance receivers	14.2	16.4	15.3
Total	14.8	15.8	15.3

Source: MMFRP, 2008.

But remittance-receiving children whose mothers had a less-than-average education aspired to complete 15.4 years of school compared to an average of 14.2 years in the absence of remittances — a statistically significant difference. On the other hand, those whose mothers had above-average education levels actually aspired to fewer years of schooling on average (15.2) when receiving remittances than when not (16.4).

Extensive evidence has shown that higher maternal education can mean higher scholastic aspirations and success for their children. These findings suggest that remittances might boost the expectations of relatively disadvantaged youth at least in terms of what they can attain in school.

Remittances and High School Completion

When it came to completing high school, the most advanced and expensive education level possible in San Miguel Tlacotepec, nonremittance receivers had higher rates of upper secondary

school completion (32 percent) than remittance receivers (29 percent) (see Table 4).

Also, females had much higher completion rates (39 percent) than males (18 percent), probably because they are less likely to migrate during their teen years. Receiving remittances appeared to make little difference in this gender disparity.

Table 4. High School Completion Percentages (in Mexico) for Individuals in San Miguel Tlacotepec Ages 18 to 22 by Gender and Remittance Status, 2008

	Boys	Girls	All 18-to-22-year-olds
Remittance receivers	18	43	29
Nonremittance receivers	21	38	32
Total	18	39	30

Source: MMFRP, 2008.

Maternal education once again emerged as a significant advantage: exactly half of Tlacotepec youth whose mothers had more than 4.8 years of education completed high school as compared to just 18 percent of those below this threshold (see Table 5).

Table 5. Upper Secondary School Completion Percentages (in Mexico) for Individuals in San Miguel Tlacotepec Ages 18 to 22 by Maternal Education and Remittance Status, 2008

	Less than 4.8 years of maternal education	More than 4.8 years of maternal education	All 18-to-22-year-olds
Remittance receivers	16	54	29
Nonremittance receivers	21	46	32
Total	18	50	30

Source: MMFRP, 2008.

In contrast to the finding on aspirations, remittances do not reduce this maternal-education gap.

Among those whose mothers had above-average education levels, the high school completion rate was 54 percent for those receiving remittances and 46 percent for those who did not. Meanwhile, children whose mothers had below-average education levels actually had lower rates of high school completion (16 percent) when receiving remittances than children who received no remittances (21 percent).

These findings suggest that aspirations do not necessarily translate to attainment for disadvantaged youth, and that remittances may ultimately benefit children who already have the advantage of relatively educated mothers.

Study Limitations

The data used here were collected in a single migrant-sending community at one moment in time. Given that remittance income can fluctuate due to external factors and that Mexico's migrant-sending communities can vary greatly in terms of educational offerings and economic structures, it is important to use caution in drawing any broad conclusions from these results.

It is also important to note that the US recession dramatically reshaped the landscape of Mexico-US migration in the years since the data were obtained. In addition to a drop in new flows of unauthorized immigrants observed in US and Mexican data, annual remittance sending from the United States has decreased 11.7 percent — a full \$2.8 billion — when comparing the prerecession levels of 2007 (\$23.9 billion) levels to those observed for 2009. The National Bank of Mexico also reports that the frequency of remittances has dropped.

The recession's long-term impact on Mexico is still taking shape, but it is likely that this decrease in remittance flows will negatively affect schooling — at least in the short run — in places like San Miguel Tlacotepec.

What the Results Mean

With these limitations in mind, the results provide three takeaways. First, it seems remittances can improve the education aspirations of children whose mothers have relatively little education although this boost does not seem to translate to educational attainment. For these children, completing high school may depend on other characteristics in their background, such as their parents' ability to help them with schoolwork.

Second, remittances can exacerbate existing inequalities in migrant-sending areas, a finding in line with previous research. Ultimately, youth from relatively well-educated families (and presumably ones with more money for education) seem to get an added boost from remittances in terms of educational attainment.

Since educational attainment correlates with numerous other outcomes related to overall well-being, such as labor market earnings and health, this finding is of crucial importance to larger issues of national development and equity.

Third, females — who are less likely to migrate and do so at older ages — are best positioned to take advantage of increased education opportunities. While the attainment gap between females and males may be a cause for concern, it is also worth noting that these better-educated females, if and when they become mothers, will help their children attain higher levels of schooling.

Final Thought

Remittances, as vital as they are to migrant households in Mexico, do not appear to solve all problems. Furthermore, as the recession demonstrates, remittances may not be as stable an income source for the developing world as once thought.

As debate on remittances moves forward, it would behoove researchers and policymakers alike to take note that remittances are likely no substitute for formal international and state actions to promote higher levels of education in the world's migrant-sending regions.

Adam Sawyer can be reached at Adam [dot] Sawyer [at] post [dot] Harvard [dot] edu.

Sources

Banamex. 2008. *Review of the Economic Situation of Mexico*. Vol. LXXXIV, February 2008: 25, 27.

Banamex. 2010. *Review of the Economic Situation of Mexico*. Vol. LXXXV, February 2010: 509.

Bhagati, J. and C. Rodriguez. 1975. Welfare-theoretical analysis of the brain drain. MIT Working Papers, 158.

Bracho, T. 2000. Poverty and Education in Mexico. In *Unequal Schools, Unequal Chances*, ed. Fernando Reimers. Pp. 249-281. Cambridge, MA: Harvard University, David Rockefeller Center for Latin American Studies.

Cabrera, B., E. Hildreth, A. Rodríguez, V. Zárate. 2009. San Miguel Tlacotepec as a Community of Emigration. In *Migration from the Mexican Mixteca: A Transnational Community in Oaxaca and California*, eds. Wayne A. Cornelius, David Fitzgerald, Jorge Hernández Díaz, and Scott Borger. San Diego CA: Center for Comparative Immigration Studies, University of California, San Diego.

Cohen, J. 2004. *The Culture of Migration in Southern Mexico*. Austin, TX: University of Texas Press.

CONAPO (Consejo Nacional de Población). 2005. Migración México-Estados Unidos: Panorama Regional y Estatal. Mexico, DF: CONAPO. **Available online.**

Cornelius, Wayne and Jorge Bustamante. 1989. *Mexican Migration to the United States: Origins, Consequences, and Policy Options*. San Diego, CA: Center for US-Mexico Studies, University of California, San Diego.

Cornelius, Wayne. 1990. *Labor Migration to the United States: Development Outcomes and Alternatives in Mexican Sending Communities*, Working Paper No. 38, U.S. Commission for the Study of International Migration and Cooperative Economic Development, Washington, D.C., May 1990. California.

Cornelius, Wayne and Adam Sawyer. 2008. *Does Migration Impact Educational Mobility? Evidence from a Oaxacan Sending Community and its U.S. Satellites*. Paper presented at the 2008 Annual Meeting of the American Educational Association, New York, NY.

Delgado-Wise, R. and L.E. Guarnizo. 2007. *Migration and Development: Lessons from the Mexican Experience*. Washington, DC: Migration Information Source. [Available online](#).

Fitzgerald, D. 2009. *A Nation of Emigrants: How Mexico Manages its Migration*. Berkeley: University of California Press.

Fix, Michael, Demetrios G. Papademetriou, Jeanne Batalova et. al. 2009. *Migration and the Global Recession: A Report Commissioned by the BBC World Service*. Washington D.C: Migration Policy Institute. [Available online](#).

Flores, S. and G. Treviño. 2004. *Student Migration and Return: Data Analysis of Cross-Border Flows Using the Mexican and US Census*. Paper presented at the seminar: Educación y Migración México-Estados Unidos: Retos y Perspectiva, December 2004, San Pedro, NL, México.

Hamann, E. 2004. *Pensando en Cynthia y su hermana: The Educational Implications of US/Mexico Transnationalism Among Children*. Paper presented at the seminar: Educación y Migración México-Estados Unidos: Retos y Perspectiva, December 2004, San Pedro, NL, México.

Hanson, Gordon and Christopher Wooddruff. 2003. *Emigration and Educational Attainment in Mexico*. UCSD Working Paper. [Available online](#).

Holmes, S. 2006. An Ethnographic Study of the Social Context of Migrant Health in the United States. *PLoS Medicine* 3, no. 10: 1776-1793.

INEGI (Instituto Nacional de Estadística, Geografía e Informática). 2005. *Censo General de Población y Vivienda*. Aguascalientes, México: INEGI.

Kandel, W. and G. Kao. 2001. The impact of temporary labor migration on Mexican children's educational aspirations and performance. *International Migration Review* 35, no. 4: 1205-1231.

Kandel, William and Douglas S. Massey. 2002. The Culture of Mexican Migration: A Theoretical and Empirical Analysis. *Social Forces* 80: 981-1004.

Kapur, Devesh and John McHale. 2005. *Give us Your Best and Brightest: The Global Hunt for Talent and Its Impact on the Developing World*. Washington, DC: Center for Global Development.

Levitt, Peggy. 2001. *The Transnational Villagers*. Berkeley: University of California Press.

Macias, J. 1990. Scholastic antecedents of immigrant students: schooling in a Mexican immigrant-sending community. *Anthropology & Education Quarterly* 21, no. 4: 291-318.

McKenzie, David and Hillel Rapoport. 2006. *Can migration reduce educational attainment? Evidence from Mexico*. Washington, DC: World Bank Working Papers. [Available online](#).

Newland, Kathleen. 2007. *A New Surge of Interest in Migration and Development*. Washington, DC: Migration Information Source. [Available online](#).

Orozco, Manuel. 2009. *Understanding the Continuing Effect of the Economic Crisis on Remittances to Latin America and the Caribbean*. Washington, DC: Inter-American Development Bank, Multilateral Investment Fund. [Available online](#).

Portés, A. 1996. Global Villagers: The rise of transnational communities. *The American Prospect* 25: 74-77.

Ratha, Dilip. 2003. Worker Remittances: An Important and Stable Source of External Development Finance. In *Global Development Finance 2003*. Washington, DC: World Bank. [Available online](#).

Reimers, F. 2002. *Unequal Schools, Unequal Chances*. Cambridge, MA: Harvard University, David Rockefeller Center for Latin American Studies.

Santibañez, L., G. Vernez, and P. Razquin. 2005. *Education in Mexico: Challenges and*

Opportunities. Santa Monica, CA: Rand Corporation. **Available online.**

Sawyer, A., D. Keyes, C. Velásquez, G. Lima, and M. Batista. 2009. Going to School, Going to El Norte: The Impact of Migration on the Education of Oaxacan Students. In *Migration from the Mexican Mixteca: A Transnational Community in Oaxaca and California*, eds. Wayne A. Cornelius, David Fitzgerald, Jorge Hernández Díaz, and Scott Borger. San Diego: Center for Comparative Immigration Studies, University of California, San Diego.

Smith, R.C. 2006. *Mexican New York: Transnational Lives of New Immigrants*. Berkeley: University of California Press.

United Nations Department of Economic and Social Affairs Population Division. 2006. International Migration, 2006 (Wall Chart). New York.

Copyright © 2010 Migration Policy Institute. **All rights reserved.**
MPI • 1400 16th St. NW, Suite 300 • Washington, DC 20036
ph: (001) 202-266-1940 • fax: (001) 202-266-1900
source@migrationpolicy.org