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# Mexican Microenterprise Investment and Employment: The Role of Remittances

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# MEXICAN MICROENTERPRISE INVESTMENT AND EMPLOYMENT: THE ROLE OF REMITTANCES

**Christopher Woodruff** *

*Using data from Mexican surveys of Microenterprises conducted between 1992 and 1998, we examine the association between migration to the US and investment in microenterprises, the use of paid and unpaid labor, and the earnings of micro entrepreneurs. We find that investments in microenterprises are positively associated with migration rates and that in enterprises owned by females, migration is also associated with greater use of unpaid labor. For males, the connection between migration and the log of invested capital grew much stronger during the 1990s. Given the rapid increase in out-migration and remittance flows during the 1990s, this is consistent with expectations. These results apply to the migration rate of the microenterprise owner's state of birth, regardless of his/her current state of residence, and hold when current migration rates are instrumented for using historical migration rates. Kernel densities show that entrepreneurs born in high migration regions in Mexico have higher earnings, especially after controlling for characteristics of the entrepreneur.*

## I. INTRODUCTION

There is a growing literature assessing the impact of remittances on development in migrant sending countries. This research is altering the conventional wisdom that remittances are used for consumption but not investment. For example, there is evidence from several countries that remittance flows are associated with higher educational attainment among receiving families. (See Yang [2004] for evidence from the Philippines, Cox-Edwards and Ureta [2003] for El Salvador; and Hanson and Woodruff [2003] for Mexico). Hildebrandt and McKenzie [2004] show that migration is associated with better health outcomes among children, measured by higher birth weights and lower mortality rates. There is evidence that remittances are associated with investment in microenterprises as well. (See, for example, Woodruff and Zenteno [2005]; Mesnard [2004]; Mesnard and Ravallion [2005]). None of these studies suggest that the majority of remittances are used for productive investments. But they do suggest that some part of remittances is used for local development, and that the cumulative impact of these investments over time is significant.

The literature has identified the impacts of migration on investments in the migrants' country of origin in a number of ways. Here we focus on intertemporal changes in the flow of remittances. Remittances flowing to Mexico increased quite rapidly during the 1990s, from US$ 3.1 billion in

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1992 to US$ 5.6 billion in 1998, a compound growth rate of almost 11% per year. On a *per capita* basis, remittances were US$ 36 in 1992 and US$ 58 in 1998. If remittances are being channeled into microenterprises, we should observe an increase in the strength of the association between migration and microenterprise investment between the first half and second half of the decade.

Woodruff and Zenteno [2005] use the geographic pattern of migration to identify impacts of migration on microenterprises in Mexico. The proportion of individuals migrating to the US varies markedly across states in Mexico, with the highest migration rates occurring in the central-western states. Moreover, current migration patterns have deep historical roots. Migration during the latter half of the 1990s is highly correlated with migration during the latter half of the 1950s. Using the geographic variation in migration rates, Woodruff and Zenteno find that individuals born in regions with higher migration rates have larger enterprises, regardless of whether they continue to live in those regions or not.

Woodruff and Zenteno use data from the 1998 version of the same survey of microenterprises used in this paper. Because the data come from a single crossed section, they are subject to the criticism that the association between migration and remittances found in the data is the result of unmeasured regional differences. That is, it may be that individuals from high migration regions are more entrepreneurial than individuals from low migration regions. In that case, migration and investment levels will be correlated, but not in a causal manner. This paper addresses this concern by looking at the connection between migration and microenterprises across time. If the connection between migration and investment levels identified by Woodruff and Zenteno is the result of unmeasured differences, then we would expect to find that the association is as strong in 1992 as it is in 1998. If, on the other hand, migration is causally related to investment levels, we should find that the link becomes stronger during the 1990s, as remittance flows increase.

In addition to examining the effect of migration on the level of investment in microenterprises, we also examine the association between migration and employment in enterprises. We should stress that this analysis is limited to the impact of migration on employment in microenterprises. Since the survey we use is limited to firms with fewer than five employees (or 15 in the manufacturing sector), we will not uncover the impacts of remittances on employment generation in larger firms. Nevertheless, the use of both paid labor and unpaid family labor by microenterprises is an interesting area for analysis. Only a minority of enterprises employ anyone aside from the owner. Among those headed by males, 27% have at least one paid employee and 17% at least one unpaid employee. Among female-owned enterprises, unpaid employment is more common, with 30% having at least one unpaid employee and 16% a paid employee.

Finally, the well being of households in Mexico comes not from increased investment or labor, but from increased profits which those investments generate. Is migration associated with higher rates of profits for microenterprises? In the penultimate section of the paper, we examine kernel densities of raw earnings and of earnings adjusted for measured characteristics.

The paper relates to a growing literature on the impact of migration on sending country development. Much of the rather large literature on the relationship between migration and economic development of sending regions focuses on rural-urban migration within countries (Stark [1978], [1980]; Rozelle, Taylor and DeBrauw, [1999] pp. 287-291). The earliest studies focused on international migrants examined the impact in rural areas, which are the largest

source of international migrants in many countries, including Mexico. Lucas ([1987] pp. 313-330) and Lucas and Stark ([1985] pp. 901-918) analyze the impact on earnings returned by migrant workers in South African mines. Taylor ([1992] pp. 187-208) and Taylor and Wyatt ([1996] pp. 899-912) examine agricultural asset accumulation in a sample of rural households receiving remittances in Mexico.

There is more recent literature focusing on self-employment impacts in migrant-sending countries. This literature is quite geographically dispersed. Early evidence of a correlation between migration, remittances and entry into self-employment in Nicaragua is provided by Funkhouser ([1992] pp. 1209-1218). The employment choices of migrants returning to Pakistan are examined by Ilahi ([1999] pp. 170-186). Mesnard ([2004] pp. 242-262) and Mesnard and Ravallion [2005] examine employment choices of Moroccan immigrants returning from abroad, and Dustmann and Kirchkamp ([2002] pp. 351-372) analyze data on Turkish immigrants returning from Germany. These authors find evidence that migrants are more likely to enter self-employment upon returning to their home country, and that the likelihood of entering self-employment is increasing in the amount of savings accumulated while working abroad. With respect to Mexico, there is some direct evidence on the importance of remittance in enterprise investment for small, regionally-focused samples. Massey and Parrado ([1998] pp. 1-20) examine enterprise formation in a sample of 30 communities in central-west Mexico, including five neighborhoods in large cities. They conclude that earnings from work in the US provided an important source of startup capital in 21% of the new business formations. Escobar and Martinez [1991] report that earnings from US migration were an important source of startup capital in seven of 19 manufacturing firms they surveyed in Guadalajara.

The main challenge in understanding the impact of migration or remittances on the economies of sending countries is identification. For migration, the cleanest identification strategies in the existing literature derive from short-terms shocks.[1] Munshi ([2003] pp. 549-599) uses changes in rainfall (e.g., droughts) to identify the strength of migration networks among a set of communities in high migration states in Mexico. Yang [2004] uses the Asian currency crisis as a source of changes in the value of remittances received by Filipino families with migrants overseas. He takes advantage of the fact Filipino migrants work in many different countries. The use of data from repeated cross sections during a period of time in which migration and remittance flows increased dramatically is clearly not as clean an identification strategy as that employed by Munshi and Yang. But so long as the establishment of historical migration networks is exogenous to the outcomes we measure, as Section II argues is the case, then the results here should be interpreted as measuring a longer term impact of migration on microenterprises in Mexico. These may differ from the response to transient shocks identified through shocks like weather and exchange rates.

[1] Mesnard and Ravallion [2005] use a change in policies by destination countries of Tunisian migrants as a source of exogenous variation.

## II. MIGRATION NETWORKS

Our main interest is in the impact of migration and remittances on investment, labor and profits of microenterprises. Of course, migration may be related to economic outcomes for any of several reasons. Importantly, migration may either be the cause of or an effect of some economic outcome. Or, economic conditions unmeasured in available data may cause both migration and economic outcomes. For example, migration from Mexico to the US may be associated with entrepreneurial activity because migration provides the capital necessary to open a business, or because families who are entrepreneurial enough to send migrants to the US are also more likely to start businesses.

To make a credible claim that migration is a cause of an economic outcome, these endogeneity issues must be addressed. We address them here by using historical migration rates as an instrument for current rates. The argument has three steps. (1) Mexico-US migration has a distinct geographic pattern: migration is more likely among households in some states than in others. (2) This pattern has deep historical roots. At the state level, the correlation between migration rates in the 1950s and migration rates in the 1990s was 0.71. (3) The pattern was established for reasons that are exogenous to entrepreneurial ability or the environment for microenterprise. The central-western part of Mexico has high migration rates because that is where the rail lines went in the early 20th century, when migration flows began. We discuss each of these points in turn.[2]

In the empirical work, we also use differences in migration and remittance flows across time to test the importance of migration networks on microenterprises. Migration from Mexico to the US and remittance flows back to Mexico both increased dramatically during the 1990s. If migration networks are exogenous to other factors affecting microenterprises, then the importance of attachment to migration networks should have increased during the 1990s. If the association between migration and enterprise investment identified by Woodruff and Zenteno is driven by unobservable factors associated with migration networks, then the impact of migration networks should not have changed during the 1990s.

### A. Patterns of Migration and their Causes

The map in Figure 1 and the first column of Table 1 show the state-level rates of out-migration in the 1995-2000 period. Both of these use data from the 10% sample of Mexico's 2000 population census (*Instituto Nacional de Estadística, Geografía e Informática* - INEGI [2000]). Households in the census were asked a series of questions about the migration of household members to other countries during the 1995-2000 period. The questions referred to either temporary or permanent migration, for any purpose. We focus on migration to the US because that migration is most likely to be for the purpose of working.[3] Migration to the US represents about 95% of emigration

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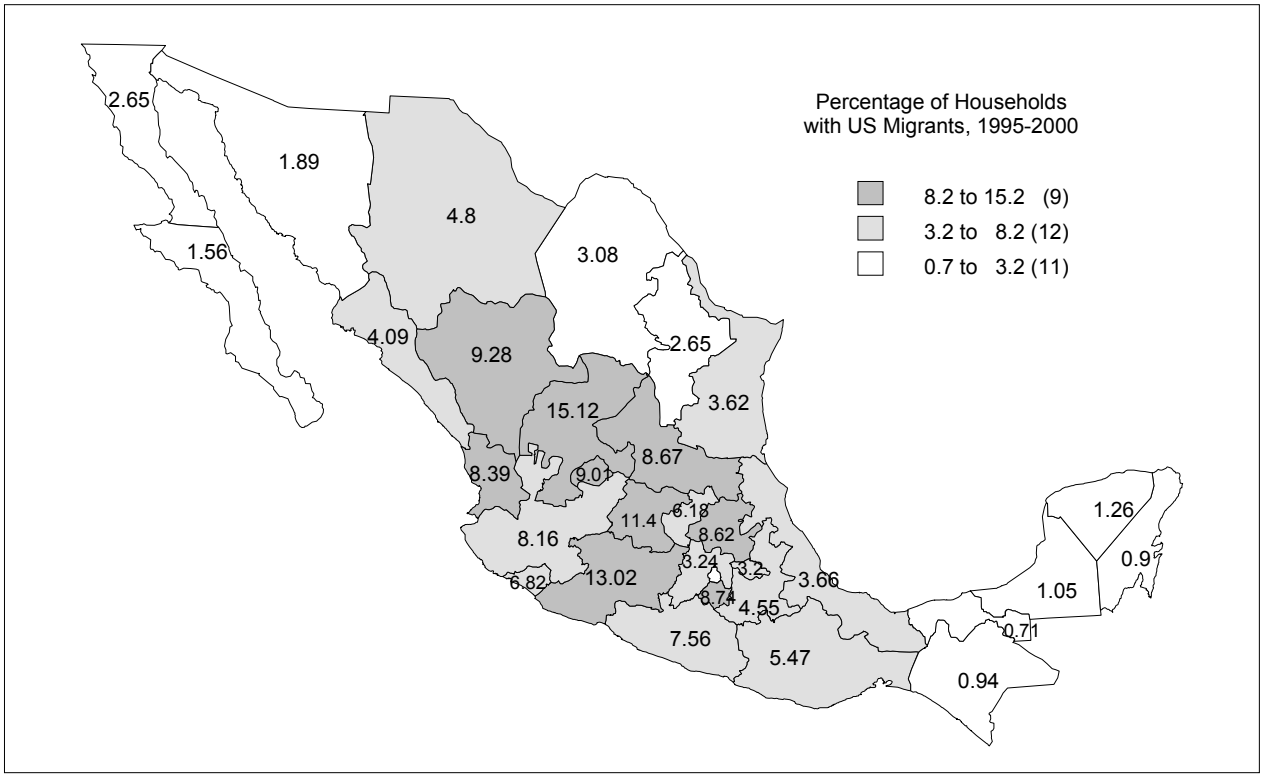
[2] The discussion of these issues here is somewhat informal. Exogeneity of migration networks and selection of who chooses to migrate to the US are both dealt with more formally in Woodruff and Zenteno [2005].

[3] The purpose of migration was not among the questions asked in the census, but the characteristics of European migrants and their households (for example, age of migrants and education of household heads) suggest that a larger portion of migration to Europe is for educational purposes. Since migration to the US represents 95% of all migration from Mexico, the results discussed in the paper are not impacted by the focus on migration to the US.

from Mexico. The first column of Table 1 shows the percentage of households in the 2000 population census reporting that at least one member migrated to the US during the 1995-2000 period. States are grouped in the table by region, using the 4 migration regions identified by Durand (Durand, Massey and Zenteno [2001]): the historical region includes states in the central-western part of Mexico in which migration rates have historically been highest; the border region includes states in the northern part of Mexico; the central region is Mexico City and surrounding states; and the southeast includes both the southern state of Chiapas and the Yucatan peninsula. The state level pattern is shown on Figure 1.

**FIGURE 1**
**MIGRATION RATE BY STATE**




Note: The rate for the Federal District is 2.05%.

**TABLE 1**
**STATE LEVEL DATA**

| | Households with International Migrants, 1995 to 2000 (%) | % of Residents Migrating Annually, 1955-1959 | Remittances *per Capita*, 1995 in US$ | *Per capita* GDP, 1995 in US$ |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| *Border:* | | | | |
| Baja California | 2.65 | 0.84 | 14.75 | 1,912 |
| Baja California Sur | 1.56 | 0.84 | 11.81 | 1,947 |
| Coahuila | 3.08 | 2.75 | 31.12 | 2,058 |
| Chihuahua | 4.80 | 3.38 | 23.04 | 2,062 |
| Nuevo León | 2.65 | 2.66 | 10.82 | 2,586 |
| Sinaloa | 4.09 | 0.46 | 45.20 | 1,195 |
| Sonora | 1.89 | 0.53 | 13.32 | 1,803 |
| Tamaulipas | 3.62 | 0.88 | 18.46 | 1,623 |
| | *3.04* | *1.54* | *21.06* | *1,898* |
| *Center:* | | | | |
| Distrito Federal | 2.05 | 0.10 | 23.10 | 3,823 |
| Guerrero | 7.56 | 1.32 | 76.89 | 796 |
| Hidalgo | 8.62 | 0.26 | 33.85 | 966 |
| Mexico State | 3.24 | 0.57 | 13.76 | 1,205 |
| Morelos | 8.74 | 0.79 | 90.58 | 1,263 |
| Oaxaca | 5.47 | 0.83 | 49.32 | 653 |
| Puebla | 4.55 | 0.30 | 38.47 | 1,006 |
| Querétaro | 6.18 | 1.44 | 56.61 | 1,817 |
| Tlaxcala | 3.20 | 0.52 | 24.88 | 823 |
| | *5.51* | *0.68* | *45.27* | *1,372* |
| *Historical:* | | | | |
| Aguascalientes | 9.01 | 3.22 | 132.59 | 1,728 |
| Colima | 6.82 | 1.34 | 56.08 | 1,600 |
| Durango | 9.28 | 5.49 | 53.48 | 1,329 |
| Guanajato | 11.40 | 4.06 | 85.41 | 1,062 |
| Jalisco | 8.16 | 1.99 | 77.87 | 1,479 |
| Michoacán | 13.02 | 3.06 | 154.19 | 901 |
| Nayarit | 8.39 | 0.81 | 64.20 | 914 |
| San Luis Potosí | 8.67 | 2.49 | 54.49 | 1,094 |
| Zacatecas | 15.12 | 5.94 | 85.64 | 878 |
| | *9.99* | *3.16* | *84.88* | *1,221* |

**TABLE 1** (continued)

| | Households with International Migrants, 1995 to 2000 (%) | % of Residents Migrating Annually, 1955-1959 | Remittances *per Capita*, 1995 in US$ | *Per Capita* GDP, 1995 in US$ |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| *South:* | | | | |
| Campeche | 1.05 | 0.01 | 5.69 | 2,341 |
| Chiapas | 0.94 | 0.00 | 5.50 | 678 |
| Tabasco | 0.71 | 0.20 | 1.87 | 951 |
| Quintana Roo | 0.90 | 0.02 | 6.95 | 2,437 |
| Veracruz | 3.66 | 0.04 | 11.31 | 912 |
| Yucatán | 1.26 | 0.18 | 7.35 | 1,159 |
| | *1.42* | *0.08* | *6.44* | *1,413* |

Notes: Columns 1 and 2 are calculated using data from the 2000 census of population. Column 4 are registered participants in the Bracero program between 1955 and 1959, from González Navarro [1974]. Column 4 is an estimate from the Bank of Mexico. The GDP data were taken from the website of INEGI.

Among states in the historical migration region, just under 10% of households report sending at least one member to the US during the 1995-2000 period. About 5% of households in Mexico City and the surrounding states report US migration, while 3% and 1.4% of households in the northern border region and the southeast, respectively, report US-bound migrants. Columns 3 and 4 of Table 1 show the remittances *per capita* and Gross Domestic Product (GDP) *per capita* in 1995. The remittances data are from the *Banco de Mexico* and the GDP data are from INEGI. Remittances are clearly an important part of income in states that make up the historical migration region. They represent more than 17% of income in Michoacan and almost 7% of income in the region as a whole.

The correlation between contemporary migration and historical migration is shown by the data in the second column of Table 1. These show migration as a percentage of the states population during the second *Bracero* -or guest worker- program, which was in effect from 1942 to 1965. Column 2 shows the total number of migrants during the peak years of the program, 1955 to 1959, divided by the state's estimated population in 1957.[4] The correlation between migration in the second half of the 1950s and the second half of the 1990s is 0.72.

The geographic pattern of out-migration from Mexico dates back to the early 1900s. Mexican workers were recruited to work in the US in large numbers during the first two decades of the 20th century. As migration from Europe slowed during and after World War I, the US established the first *Bracero* program. Pulled by the promise of work and pushed by the chaos of the Mexican revolution, large numbers of workers left Mexico for the US during the 1910s and 1920s. The recruiters going to Mexico in search of laborers and the migrants going north to the US both used the major north-south rail lines which were built between 1880 and 1910. The Central Mexican Railroad went from the state of Colima on the Pacific Coast through Guadalajara, turning north

[4] González Navarro [1974] provides data on the number of migrants registered in the *Bracero* program by year and state. The population data are estimated using a linear extrapolation of the 1950 and 1960 population census data.

through the states of Guanajuato, Zacatecas and Chihuahua before terminating on the Texas border at what is now Ciudad Juárez. The Mexican International railroad connected Durango to Piedras Negras. The third major line was the Mexican National Railroad, which went north from Mexico City through San Luis Potosí and Monterrey, terminating Nuevo Laredo and Brownsville in eastern Texas. The first two lines were more important because they connected with US railroads at El Paso and Eagle Pass. The major migrant-sending states, both during the *Bracero* era and currently, were all served by these rail lines. The rail lines were the foundation of migration networks which survive to the present.[5]

Of course, it may be the case that migration rates are high in certain states because the people there are naturally more entrepreneurial, or because economic conditions there make migration an appealing option. The historical rates will not filter out the endogenous component of current migration if the former is true, and they will not do so if the latter is true and the conditions causing migration also create an environment conducive to microenterprises. The routes of the railroads were largely determined by their endpoints, making it unlikely that their location was driven by a desire to cross through areas with particularly high levels of entrepreneurial ability. But even if they did not pass through such areas by design, they might have done so by happenstance.

However, the available data suggest no positive correlation between entrepreneurial activity prior to the wave of migration that began in 1942 and subsequent migration rates. State-level rates of self-employment calculated from the 1940 Mexican population census show an insignificant but negative (-0.05) correlation with *Bracero* era migration rates. The correlation between the 1940 self-employment rate and current (1995-2000) migration rates is positive but very low (0.07). There are similarly small and insignificant correlations between *Bracero* migration rates and occupation structure in 1940.[6] There is some correlation between levels of education and subsequent migration rates. Migration rates are higher in states with a larger percentage of residents with less than 6 years of schooling (0.31) and smaller in state with more population having 6-8 years of schooling (-0.31) or 9-11 years of schooling (-0.19), though the latter correlation is not significant at the 0.10 level. To the extent that educational attainment is correlated with entrepreneurial ability (a standard assumption in the literature), these last data suggest that there may be some negative correlation between migration rates and entrepreneurial ability. This would make finding a positive connection between migration and enterprise size more difficult to find. The lack of any positive correlation between pre-*Bracero* entrepreneurial activity and subsequent migration supports the validity of the historical migration rates as instruments for current migration.

## B. Migration Flows across Time

In this paper, we subject the exogeneity of migration networks to a further test by looking at the relationship between migration and microenterprise investment across time. Both migration and

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[5] Munshi [2003] shows the importance of migration networks both in the migration decision and in the likelihood of finding employment in the US.

[6] The correlation between *Bracero* migration rates and the percentage of employment in agriculture (0.07), trade (-0.10), manufacturing (-0.07) and professional services (-0.03) are all low and highly insignificant.

remittance flows increased markedly during the 1990s. Data from the US Population Census indicate that the Mexican-born population resident in the US more than doubled during the 1990s, increasing from 4.3 million in 1990 to 9.2 million in 2000. The *Banco de México* estimates that flows of remittances more than tripled during the 1990s. Flows more than doubled between 1992 and 1998, the two end points of the survey data used in this paper, increasing from US$ 3.07 billion in 1992 to US$ 6.53 billion in 1998. Given the rapid increase in both migration and remittance flows during the 1990s, the association between migration and enterprise size should be stronger in the late 1990s than it was in the early 1990s.

Before turning to the regression results, we present some direct evidence of a connection between remittances and microenterprises from the Mexican population census. The data on Table 2 report rates of remittance receipts for individuals between the ages of 18 and 65 residing in urban areas (with population above 100,000) by job type. We are particularly interested in knowing whether self-employed workers are more likely than others to receive remittance payments, a pattern which might indicate that remittance flows are supporting microenterprise investments. The three columns report the percentage of all individuals, males and females who receive remittances. For all individuals, remittance rates are highest among those not employed (1.59%), followed by the self-employed (1.03%), and wage workers (0.65%). Among females (Column 3), the self-employed receive remittances at a rate 75% higher than wage workers (1.76% vs. 1.01%).[7] Note that self-employed females are at least twice as likely to receive remittances as are self-employed males. (Compare Column 2 with Column 3). The remittance patterns on Table 3 suggest that remittances may indeed be a source of capital for the self-employed in urban areas. The impact appears to be greater for females than for males.

**TABLE 2**
**PERCENT OF INDIVIDUALS RECEIVING REMITTANCES**

| | All Individuals | Males | Females |
|---|---|---|---|
| Not Working | 1.59% | 1.61% | 1.59% |
| Wage Worker | 0.65% | 0.43% | 1.01% |
| Self Employed | 1.03% | 0.68% | 1.76% |

Source: Mexican Population Census [2000].

[7] The fact that those not working are most likely to receive remittances raises the possibility that remittances might allow some individuals to stay out of the workforce. If remittances result in the most marginal of the self-employed choosing to stay out of the labor force, then remittances might be associated with higher average investment levels simply because they truncate the lower tail of the distribution of investment levels. Woodruff and Zenteno [2005] report results of regressions which show no effect of migration on overall self employment rates.

**TABLE 3**
**RECEIPT OF REMITTANCES**

| | Full Sample (Male) | Internal Migrants Only | Full Sample (Female) | Internal Migrants Only |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Migration Rate in State of Residence | 3.34 | 4.49 | 11.12 | 12.82 |
| | (2.69) | (3.32) | (5.40) | (5.79) |
| Migration Rate in State of Birth | 2.58 | 3.27 | 4.47 | 5.68 |
| | (3.32) | (3.96) | (4.83) | (7.28) |
| Variable Indicating Person is Internal Migrant | 0.05 | | 0.09 | |
| | (1.31) | | (1.33) | |
| Number of Observations | 827656 | 278778 | 913490 | 312079 |
| % of Sample Receiving Remittances | 0.63 | 0.69 | 1.40 | 1.51 |
| Psuedo R-squared | 0.036 | 0.035 | 0.035 | 0.027 |

Notes: T-values in parentheses. Standard errors are for the migration rate in state of residence are adjusted for clustering at the level of state of residence, and standard errors for migration rate in the state of birth are adjusted for clustering at the level of the state of birth. All regressions also include 9 age and 6 schooling indicator variables.

## C. Demand and Supply Side Effects

Though historical rates may allow us to examine the effect of the exogenous component of migration on microenterprises, remittances may still affect the size of microenterprises through either of two channels. First, remittances may increase the level of spending on goods and services supplied by microenterprises. The increase in demand for their products might lead to an increase in investments. Second, remittances may alleviate capital/wealth constraints among recipient households, leading them to make additional investments in enterprises.

We separate these channels by focusing on connections to migration networks coming through an individual's state of birth rather than his state of residence. The simple framework developed by Woodruff and Zenteno shows that remittances associated with higher migration in the state of residence affect the size of enterprises through either the demand for goods or supply of capital channel. Remittances associated with the state of birth, however, do not affect the size through the demand for capital, so long as firms sell in local rather than national markets. Given the small size of the enterprises in the survey used in this paper, this is a reasonable assumption.

The microenterprise data we use in this paper do not contain information on direct remittance receipts by owner of the enterprises or other members of his/her household. Given both measurement and endogeneity issues, it is not clear how useful such data would be in any case. What the data do tell us is the state of residence and the state of birth of the enterprise owner. We expect that individuals residing in states with higher rates of migration are more likely to receive remittances. If individuals retain family and social networks from their state of origin even after they relocated to another state, we would also expect individuals born is states with higher

migration rates to be more likely to receive remittances. In other words, if an individual relocates from a high migration state to a low migration state, that individual has a higher probability of receiving remittances than his neighbors do. While his business operates in an area with low remittance flows, and hence the demand for his output is not affected by remittances, remittances may still affect his investment through the wealth/liquidity channel.

Data from the 2000 Mexican population census confirm that migration networks survive internal relocation. The population census asks individuals if they receive remittances from outside Mexico. The regressions reported on Table 3 show that ties to regions with higher rates of migration survive when an individual migrates within Mexico. Individuals born in states/regions with higher migration rates generally have higher migration rates regardless of where they currently live. On Table 3, Columns 1 (for males) and 3 (for females) show the results of a probit where the dependent variable is one if the individual reports that he/she receives remittances, and zero he/she does not. The regression includes controls for the individual's age and education, but for brevity we show in Table 3 only two variables representing migration rates. [8] The first is the average migration rate among households in the respondent's state of current residence. The second is the average migration rate among households in the respondent's state of birth. For males and for females, the probability of receiving remittances is increasing in the migration rates in both the state of residence and the state of birth. The migration rate in the state of residence has a larger effect, but the migration rate in the state of birth also has an important effect on the likelihood a household receives remittances. For males, the effects of state of residence and state of birth are of roughly the same magnitude. For females, the effects of state of residence are more than twice as large as the effects of state of birth. Columns 2 and 4 limit the sample to internal migrants, those living in a state other than their state of birth. Again, the migration rates of both the state of residence and state of birth are positively related to receipt of remittances.

In sum, migration from Mexico has a distinct geographical pattern. This pattern was established through links to early rail lines, and available evidence indicates that migration is not positively associated with entrepreneurial ability at the state level. In order to separate the impact of individual's connection to a migration network from broader community level impacts of migration and remittances, we measure an individual's connection to migration networks with the migration rate in the individual's state of birth.

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[8] For the regressions, the sample is limited to people between the ages of 18 and 65 who currently reside in a city with more than 100,000 people. Those born outside of Mexico are also removed from the sample. The sample criteria mimic those used in the microenterprise investment regressions reported below. All standard errors are adjusted for clustering based on groups representing the individual's state of birth.

## III. ENTERPRISE DATA

The microenterprise data come from the National Survey of Microenterprises (*Encuesta Nacional de Micronegocios* - ENAMIN). The survey was conducted by the INEGI, four times during the 1990s. The first three surveys were carried out in the first quarter of 1992, 1994, and 1996, respectively. The fourth was carried out during the fourth quarter of 1998.

The ENAMIN was administered in urban areas. The sample is drawn from the quarterly household labor survey, the *Encuesta Nacional de Empleo Urbano* (ENEU). Enterprise owners employing fewer that five people -15 in manufacturing- were eligible for the ENAMIN survey. Nationally, the sample was more than 10,000 in each of the four years. For the analysis, we limit the sample to individuals between the ages of 22 and 60 who work full time, at least 35 hours per week. Eliminating firms with missing data, the sample is 19,433 in all, with between 3,342 and 5,776 observations per year. The first three surveys sampled in 18 different states,[9] while the final survey sampled in at least one city in all 32 federal entities in Mexico. When we compare enterprises across time, we limit the sample to data from only the states included in the first three surveys.

The largest number of firms are involved in retail trade. These represent 33% of the sample. An additional 17% of the firms are in repair services, and 13% in manufacturing. The remaining firms are divided between construction (8%) restaurants/hotels (8%), professional services (8%), transportation (7%), and miscellaneous services (6%).

Capital investment is measured in the ENAMIN as the replacement cost of equipment used in the business plus inventories. The questions regarding equipment are asked with respect to tools, machinery, buildings, transportation equipment, and other equipment. The median level of capital invested in the enterprises over the four surveys is US$ 801. The distribution is skewed to the right; the mean investment level is US$ 4,553. Enterprises owned by males (median US$ 865) are larger than those owned by females (median US$ 640). The median investment level is somewhat higher in the earlier surveys: US$ 841 in 1992 and US$ 1,044 in 1994, compared with US$ 735 in 1996 and US$ 741 in 1998.

There are some differences between the survey instruments used in the different years, but they are generally consistent. The most important difference is that the 1992 survey does not specifically ask about buildings and real estate in the list of assets. It is unclear whether owners reported buildings as a part of "other assets" in the survey. The median investment level is similar in 1992 to that in 1996 and 1998. There is also consistency in the percentage of firms with paid and unpaid employees across time. 23% of enterprises have paid employees in 1992 and 1998, 25% in 1996 and 27% in 1994.

Before turning to regressions, we show the raw data for entrepreneurs born in high migration states and low migration states separately. Table 4 shows raw data on the log of capital investment and the log of labor hours worked by paid and unpaid employees for a sample of entrepreneurs born in states with historical migration rates (1955-1959) above 1.9% (the ten highest migration states) and

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[9] There were a small number of observations -less than 10- in an additional 6 states. Where the sample is limited to states present in all four surveys, these observations are eliminated.

entrepreneurs born in states with migration rates lower than 0.5% (the ten lowest migration states). The data are divided by gender and shown for each of the four survey years.

The intention of Table 4 is to show the trend of enterprise characteristics among high migration entrepreneurs relative to the trend among low migration entrepreneurs. For example, among males in 1992, the log of the average investment by high migration entrepreneurs was 6.92, while the log of capital invested by low migration entrepreneurs invested 6.87, a difference of 5 log points. By 1998, this difference had increased to 28 log points (an average log investment of 6.64 for high migration entrepreneurs compared with an average log investment of 6.36 for low migration entrepreneurs). Given the rapid increase in migration and remittances during the 1990s, this is exactly the trend we would expect to find if remittances are being channeled into microenterprises. For females, however, the raw trend much less clear. The difference between high- and low-migration entrepreneurs is greatest in 1992, smallest in 1994, and in between these levels in 1996 and 1998. In use of labor, the clearest trends are with unpaid labor. For females, the ratio of unpaid labor is increasing during the 1990s, consistent with a migration-remittances effect, while among male-owned enterprises, the trend appears to go in the opposite direction. Of course, many factors affect the capital investment and use of labor in enterprises, so these raw differences may be misleading. In the next section, we control for some of these other factors in regressions.

**TABLE 4**
**LOG CAPITAL STOCK AND HOURS WORKED BY PAID AND UNPAID EMPLOYEES**

| | MALES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Log Capital Stock | | | Log Hours, Paid Employees | | | Log Hours, Unpaid Employees | | |
| | 10 High Migration States | 10 Low Migration States | Difference | 10 High Migration States | 10 Low Migration States | Difference | 10 High Migration States | 10 Low Migration States | Difference |
| 1992 | 6.92 | 6.87 | 0.05 | 1.11 | 1.18 | -0.07 | 0.63 | 0.53 | 0.10 |
| 1994 | 6.92 | 6.76 | 0.16 | 1.39 | 1.05 | 0.34 | 0.73 | 0.55 | 0.19 |
| 1996 | 6.48 | 6.33 | 0.15 | 1.22 | 1.10 | 0.12 | 0.62 | 0.58 | 0.04 |
| 1998 | 6.64 | 6.36 | 0.28 | 1.15 | 1.02 | 0.13 | 0.57 | 0.69 | -0.12 |
| | **FEMALES** | | | | | | | | |
| | Log Capital Stock | | | Log Hours, Paid Employees | | | Log Hours, Unpaid Employees | | |
| | 10 High Migration States | 10 Low Migration States | Difference | 10 High Migration States | 10 Low Migration States | Difference | 10 High Migration States | 10 Low Migration States | Difference |
| 1992 | 6.70 | 5.98 | 0.72 | 0.835 | 0.635 | 0.20 | 1.235 | 1.260 | -0.02 |
| 1994 | 6.14 | 6.24 | -0.10 | 1.110 | 1.445 | -0.34 | 1.219 | 1.160 | 0.06 |
| 1996 | 6.23 | 5.96 | 0.27 | 0.594 | 0.497 | 0.10 | 1.244 | 0.807 | 0.44 |
| 1998 | 6.29 | 5.97 | 0.32 | 0.582 | 0.565 | 0.02 | 1.088 | 0.880 | 0.21 |

Source: ENAMIN survey data, various years. Sample limited to individuals 22-60 years of age working 35 or more hours per week.

## IV. REGRESSION RESULTS

We begin by estimating the following empirical model:

$$(1)\ Y_{ijkl} = c + \varphi w_{kl} + \beta \Gamma_i + \gamma \Omega_j + \eta_1 M_j + I_l + \varepsilon_{ijkl}$$

where $Y$ is either the log of invested capital in the microenterprise, the log of hours worked by paid employees, or the log of hours worked by unpaid family members.[10] The regressors include a vector of entrepreneur and firm level characteristics $\Gamma_i$ (for example, education, age, and age of firm), a vector of characteristics of the state of birth $\Omega_j$ (for example, *per capita* income), the wage rate in the state and industry in which the firm operates $w_{kl}$, the migration rate in the state of birth of the entrepreneur $M_j$, and an error term.

Because our main variable of interest is measured at the state-of-birth level, and because the controls for characteristics of the state of residence are unlikely to capture all of the factors affecting the environment for microenterprises, we also estimate the following model with state of residence and survey year fixed effects:

$$(2)\ Y_{ijkl} = c + \beta \Gamma_i + \gamma \Omega_j + S_k + \eta_1 M_j + I_l + Y + \varepsilon_{ijkl}$$

Where $S_k$ is a state fixed effect for the state of residence, $Y$ is the year fixed effects, and the other regressors are as described above. The state fixed effects control for all differences in the state of residence of the entrepreneur. Since the fixed effects also wash out most of the variation in the state-industry wage rates, that variable is dropped from equation 2 as well.

We begin by examining capital investment in the enterprises. Tables 5 and 6 report regressions for males and females, respectively. The first column in each of the tables reports the results of an Ordinary Least Squares (OLS) regression, with errors clustered at the state-of-birth level. For both males and females, we find that the migration rate in an entrepreneur's state of birth is positively associated with the log of invested capital in the enterprise. For males, a one standard deviation increase in the migration rate (0.036) is associated with an increase of 16.5 log points. For females, the effect is slightly larger -23 log points-. The second columns in both tables reports the results when current migration is instrumented using the migration rate in the 1950s. The migration effect remains highly significant for both males and females, and increases in magnitude, especially for males. However, once we add state of residence and year fixed effects to the IV regression (Column 3), the coefficients become smaller. In the case of females, the migration effect becomes insignificant. For males, the effect remains significant at the 0.05 level. The bottom panel of both tables reports the first stage regressions. Historical migration rates are quite a strong instrument, with partial r-squares in the 0.60 range.

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[10] For both paid and unpaid labor, we take the log of hours worked plus one, since many enterprises do not employ any paid or unpaid workers.

## TABLE 5A
## REGRESSION RESULTS - MALES
(log of replacement cost of invested capital)

| | | | | 1992-1994 | 1996-1998 |
|---|---|---|---|---|---|
| | **OLS** | **IV** | **IV** | **IV** | **IV** |
| | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| *State Level Variables:* | | | | | |
| Migration Rate in the State of Birth | 4.64 | 7.03 | 2.60 | -0.38 | 3.29 |
| | (4.45) | (4.13) | (2.02) | (0.17) | (1.83) |
| State FE | No | No | Yes | Yes | Yes |
| Industry Controls | Yes | Yes | Yes | Yes | Yes |
| Number of Observations | 15387 | 15387 | 15387 | 6491 | 7427 |
| R-Squared | 0.282 | 0.281 | 0.301 | 0.289 | 0.324 |

## TABLE 5B
## FIRST STAGE FOR IV REGRESSIONS
(migration rate in the entrepreneur's state of birth)

| | | | | 1992-1994 | 1996-1998 |
|---|---|---|---|---|---|
| | **OLS** | **IV** | **IV** | **IV** | **IV** |
| | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| Migration Rate 1955-1959 | | 1.54 | 1.85 | 1.91 | 1.81 |
| | | (5.74) | (8.92) | (7.95) | (9.92) |
| State Fixed Effects | | No | Yes | Yes | Yes |
| Year Fixed Effects | | No | Yes | Yes | Yes |
| Industry Controls | | Yes | Yes | Yes | Yes |
| Number of Observations | | 15387 | 15387 | 6491 | 7427 |
| Partial R-Sq of Instrument | | 0.56 | 0.60 | 0.62 | 0.60 |

Notes: t-values in parentheses. Standard errors are corrected for clustering at the state of birth level. Sample limited to owners 22-60 years of age working at least 35 hours per week. The regressions also include the following variables measuring individual owner and enterprise characteristics: years of schooling and its square; experience calculated as experience-age-6; age of the enterprise and its square; a dummy indicating the enterprise was started within the past 6 months, a dummy indicating the owner owns more than one enterprise, and the log *per capita* income in the owner's state of birth.

**TABLE 6A**
**REGRESSION RESULTS - FEMALES**
(log of replacement cost of invested capital)

| | | | | 1992-1994 | 1996-1998 |
|---|---|---|---|---|---|
| | **OLS** | **IV** | **IV** | **IV** | **IV** |
| | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| *State Level Variables:* | | | | | |
| Migration Rate in the State of Birth | 6.53 | 7.30 | 4.37 | 6.11 | 4.31 |
| | (4.37) | (4.06) | (1.33) | (1.92) | (1.25) |
| State Fixed Effects | No | No | Yes | Yes | Yes |
| Year Fixed Effects | No | No | Yes | Yes | Yes |
| Industry Controls | Yes | Yes | Yes | Yes | Yes |
| Number of Observations | 4046 | 4046 | 4046 | 1409 | 2013 |
| R-Squared | 0.148 | 0.147 | 0.203 | 0.221 | 0.191 |

**TABLE 6B**
**FIRST STAGE FOR IV REGRESSIONS**
(migration rate in the entrepreneur's state of birth)

| | | | | 1992-1994 | 1996-1998 |
|---|---|---|---|---|---|
| | **OLS** | **IV** | **IV** | **IV** | **IV** |
| | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| Migration Rate 1955-1959 | | 1.67 | 1.82 | 1.926 | 1.788 |
| | | (6.15) | (8.47) | (6.58) | (11.12) |
| State Fixed Effects | | No | Yes | Yes | Yes |
| Year Fixed Effects | | No | Yes | Yes | Yes |
| Industry Controls | | Yes | Yes | Yes | Yes |
| Number of Observations | | 4046 | 4046 | 1409 | 2013 |
| Partial R-Sq of Instrument | | 0.59 | 0.59 | 0.61 | 0.62 |

Notes: t-values in parentheses. Standard errors are corrected for clustering at the state of birth level. Sample limited to owners 22-60 years of age working at least 35 hours per week. The regressions also include the following variables measuring individual owner and enterprise characteristics: years of schooling and its square; experience calculated as experience-age-6; age of the enterprise and its square; a dummy indicating the enterprise was started within the past 6 months, a dummy indicating the owner owns more than one enterprise, and the log *per capita* income in the owner's state of birth.

Next, we break the sample into two time periods. Column 4 reports results for the survey years 1992 and 1994, and Column 5 for the survey years 1996 and 1998. For males, the migration effect is nearly zero in the early part of the decade, and positive and significant in the second half of the decade. Consistent with the idea that remittances are being channeled into microenterprises, the association between migration and enterprise investment grows during the decade. Indeed, when the sample is broken by survey year, the measured effect of migration on enterprise investment

shows a monotonically increasing trend: -1.88 in 1992, 1.24 in 1994, 1.97 in 1996, and 5.63 in 1998 (results not shown on table). For females, however, we find no increasing trend across the decade. The results reported on Table 6 show that the effect is larger in the first two survey years than in the last two. There is also no clear trend when separate regression are run for each survey year. We will speculate on explanations for these differences in the concluding section.

Next, we ask whether remittances are associated with the use of labor in the enterprise. Among enterprises owned by males, 27.5% hire at least one paid employee and 17.5% at least one unpaid employee. Among those owned by females, unpaid employees are much more common -only 15.5% of enterprises have at least one paid employee, but 31.5% have at least one unpaid employee-. Is there an association between migration and the use of labor in the enterprises? Table 7 reports regressions with the log of hours (plus one) worked by paid employees, using the specification given by equation (2), with state and year fixed effects. Both OLS and IV results are reported. For males, there appears to be no association between migration and the use of paid labor. For females, the measured effect is larger than for males, but is still well below the 0.10 level of significance. There are no clear trends across the decade. Migration is not significantly associated with the use of paid labor either in the first half or the second half of the 1990s.

We do find a positive association between migration and the log of unpaid hours (plus one) employed in the enterprise among female owners. The effect is quite strong, and of very similar magnitude in the OLS and IV regressions. A one standard deviation increase in the migration rate is associated with an increase of almost 28 log points. In enterprises owned by males, the measured effect is actually negative, but not significantly so. Again, there are no clear trends across the decade. Migration is significantly associated with use of unpaid labor in female owned enterprises in both the early and later period, and the measured effect is nearly the same. The labor hours regressions also include indicators for the presence of children aged 0-5, 6-12, and 13-18 in the household. For both males and females, the use of unpaid labor is strongly correlated with the presence of children between the ages of 13 and 18 in the household.

Migration is associated with an increase in capital investment and, for females at least, the increase in the hours worked by unpaid employees. Both of these would be expected to lead to an association between migration and the earnings of the micro entrepreneurs. Estimating the returns to self-employment is complicated due to the level of noise in earnings data and the large range of capital stocks. Parametric estimates which impose a functional form may smooth over important non-linearities in earnings.[11] Given this, we use kernel densities to examine profits. Figure 2A shows the kernel densities of earnings for males born one of the ten states with the lowest migration rates in the 1955-1959 period and males born in one of the ten states with the highest migration rates during that period. To make the graphs more readable, the data are presented only for individuals earning less than US$ 1,000 per month. Figure 2B shows the kernel densities for females in the same two groups. For males, there is a perceptible shift to the right in the earnings densities among individuals born in high migration states. For females, the two densities appear similar.

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[11] See Woodruff and Zenteno [2005] for parametric profit regressions using the 1998 ENAMIN data.

**TABLE 7**
**REGRESSION RESULTS**
(hours worked by paid employees

| | MALES | | | | FEMALES | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | | | 1992-1994 | 1996-1998 | | | 1992-1994 | 1996-1998 |
| | OLS | IV | IV | IV | OLS | IV | IV | IV |
| *State Level Variables:* | | | | | | | | |
| Migration Rate in the State of Birth | 0.01 | 0.40 | 1.05 | 0.21 | 2.45 | 2.10 | 1.92 | 0.27 |
| | (0.01) | (0.29) | (0.49) | (0.14) | (1.38) | (1.30) | (0.57) | (0.17) |
| State Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of Observations | 12641 | 12641 | 5500 | 7162 | 3109 | 3109 | 1156 | 1945 |
| R-Squared | 0.089 | 0.089 | 0.111 | 0.088 | 0.174 | 0.174 | 0.317 | 0.122 |

Notes: t-values in parentheses. Standard errors are corrected for clustering at the state of birth level. Sample limited to owners 22-60 years of age working at least 35 hours per week. Dependent variable is the 1 plus the log of hours worked by paid employees. The regressions also include the following variables measuring individual owner and enterprise characteristics: years of schooling and its square; experience calculated as experience-age-6; age of the enterprise and its square; a dummy indicating the enterprise was started within the past 6 months, a dummy indicating the owner owns more than one enterprise, the number of children in the owners household between the ages of 0 and 5, 6 and 12, and 13 and 18, and the log *per capita* income in the owner's state of birth.

**TABLE 8**
**REGRESSION RESULTS**
(hours worked by unpaid employees)

| | MALES | | | | FEMALES | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | | | 1992-1994 | 1996-1998 | | | 1992-1994 | 1996-1998 |
| | OLS | IV | IV | IV | OLS | IV | IV | IV |
| *State Level Variables:* | | | | | | | | |
| Migration Rate in the State of Birth | -0.88 | -1.32 | -0.51 | -1.96 | 7.79 | 7.75 | 7.78 | 7.13 |
| | (1.24) | (1.13) | (0.39) | (1.38) | (4.28) | (3.21) | (4.06) | (1.89) |
| State Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of Observations | 12643 | 12643 | 5500 | 7164 | 3109 | 3109 | 1156 | 1945 |
| R-Squared | 0.156 | 0.156 | 0.127 | 0.175 | 0.110 | 0.110 | 0.141 | 0.139 |

Notes: t-values in parentheses. Standard errors are corrected for clustering at the state of birth level. Sample limited to owners 22-60 years of age working at least 35 hours per week. Dependent variable is the 1 plus the log of hours worked by unpaid employees. The regressions also include the following variables measuring individual owner and enterprise characteristics: years of schooling and its square; experience calculated as experience-age-6; age of the enterprise and its square; a dummy indicating the enterprise was started within the past 6 months, a dummy indicating the owner owns more than one enterprise, the number of children in the owners household between the ages of 0 and 5, 6 and 12, and 13 and 18, and the log *per capita* income in the owner's state of birth.

**FIGURE 2A**

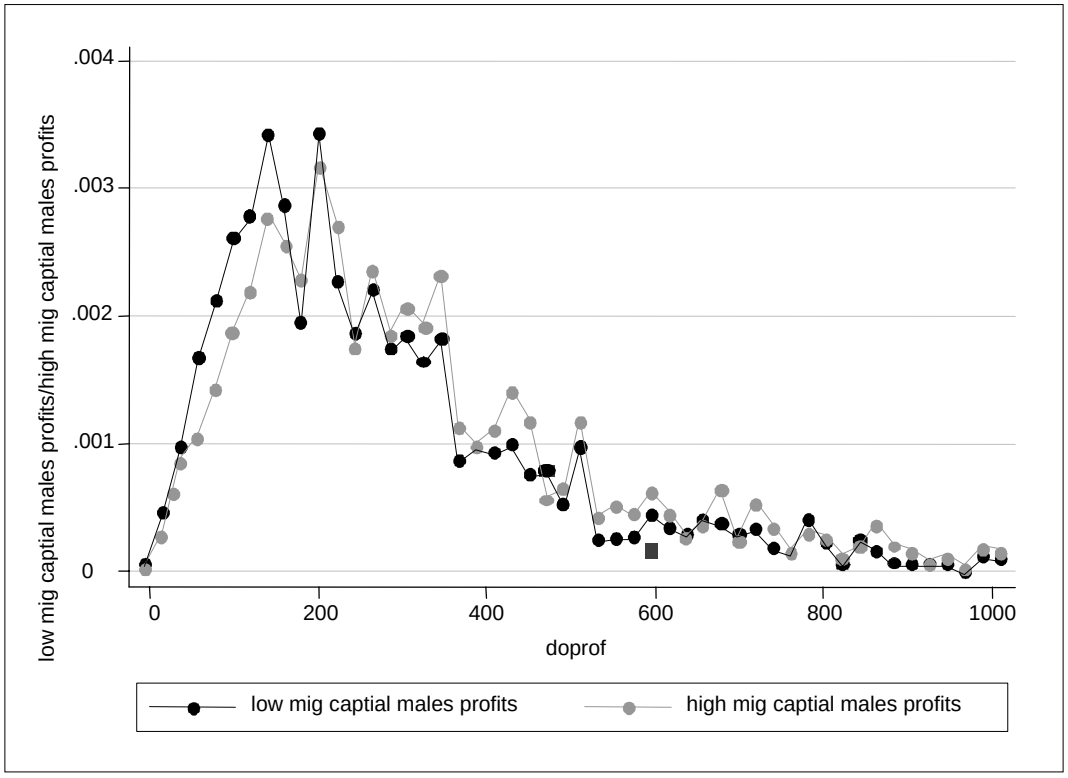
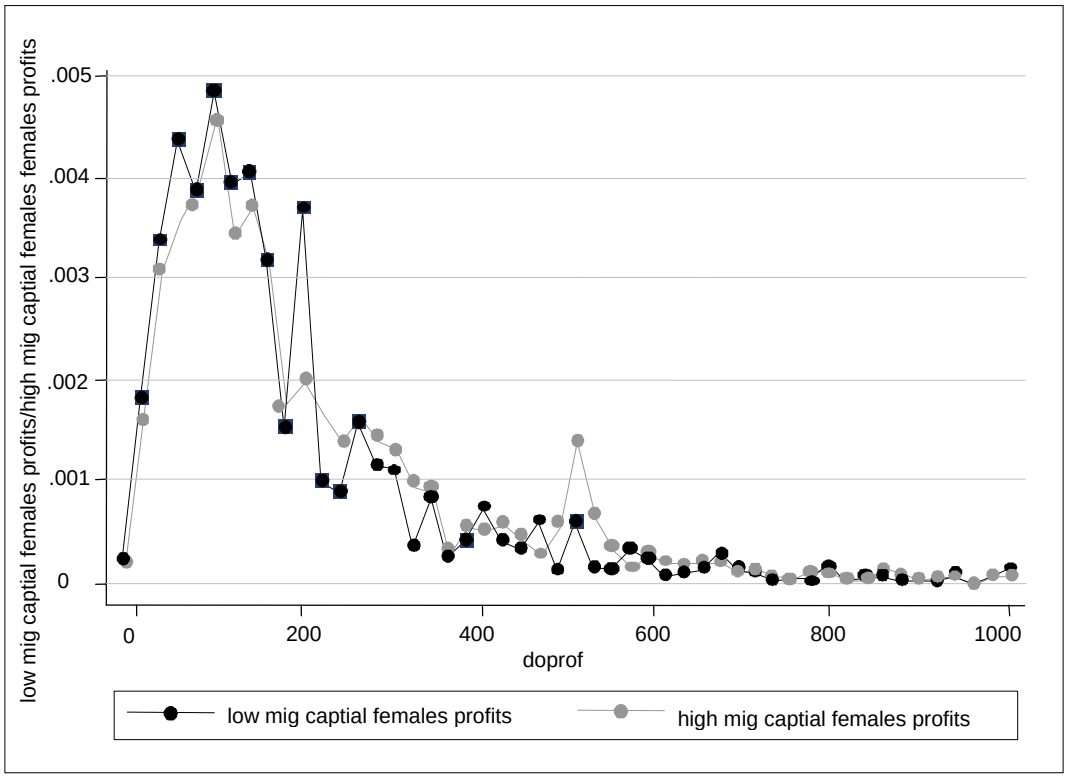



**FIGURE 2B**



As the data on Table 1 indicate, high migration states have lower *per capita* incomes on average than do low migration states. Among males, those born in one of the high migration states have education levels which are almost a year lower than those born in low migration states. For females, the difference is about a half a year in the same direction. Hence, all else equal, we might have expected profits to be higher in low migration states. We next look at earnings densities controlling for some of the differences in characteristics of the micro entrepreneurs. We do this by first regressing log profits against the same controls for entrepreneur and enterprise characteristics, but not controlling for capital stock. The controls are the same ones used in the investment regressions reported on Tables 5 and 6. We then plot kernel densities of the residuals from these regressions. These are shown on Figures 3A (males) and 3B (females). In the residual plots, the rightward shift is clear for both males and females. These densities provide support for a connection between access to migration networks and the profitability of enterprises. These data suggest that connection to migration networks is associated with higher levels of income among Mexico's microentrepreneurs.

**FIGURE 3A**

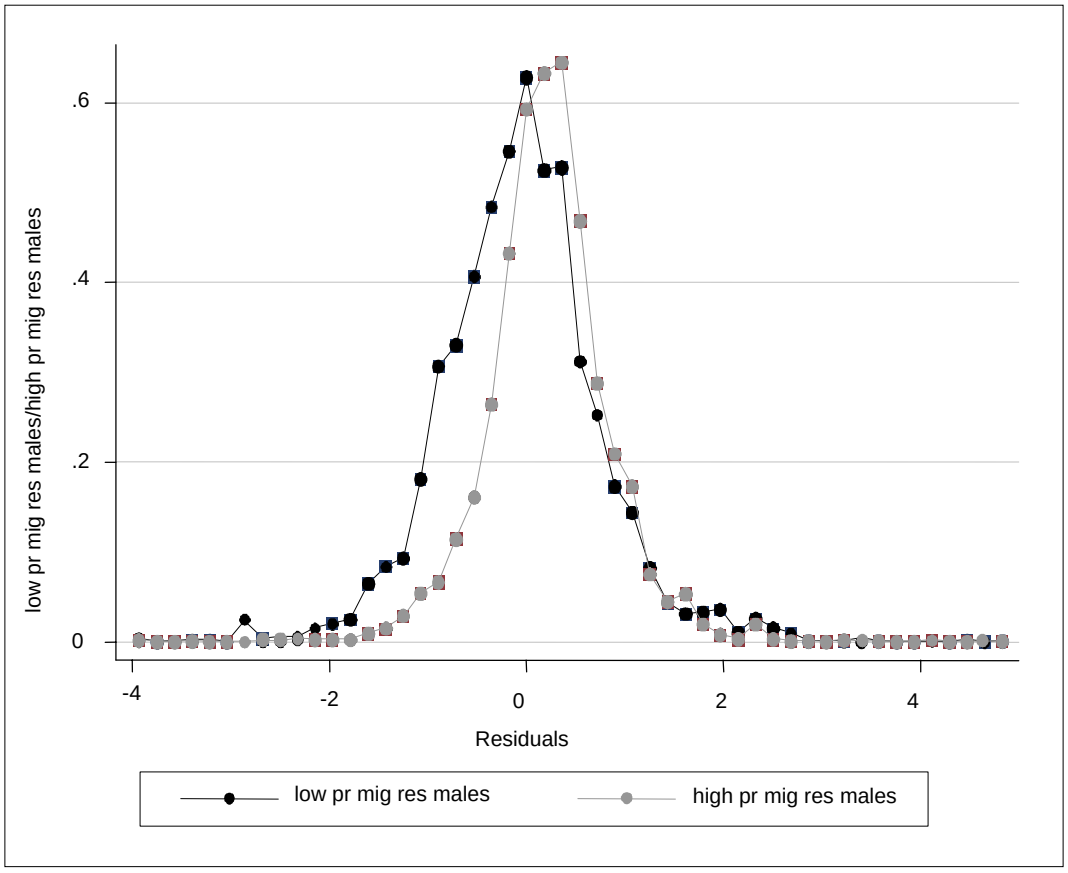
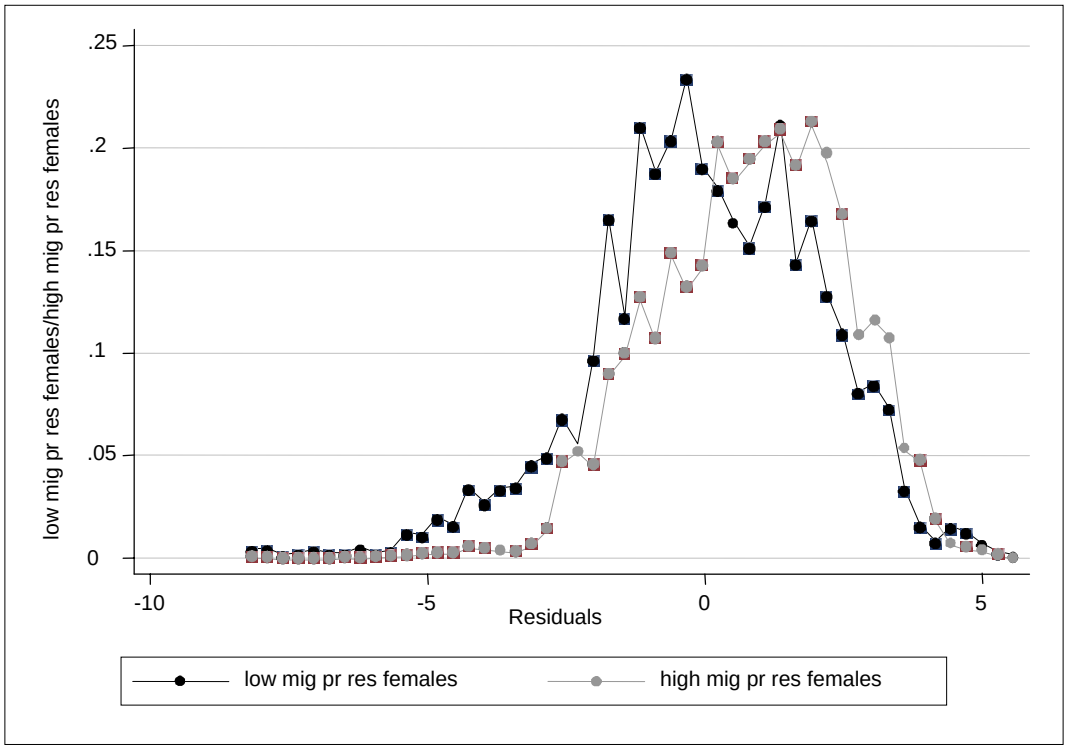


**FIGURA 3B**


low mig pr res females/high mig pr res females
.25
.2
.15
.1
.05
0
-10
-5
0
5
Residuals
low mig pr res females
high mig pr res females

## V. CONCLUSIONS

Both migration to the US and remittance flows back to Mexico increased dramatically during the 1990s. If remittances are being channeled into microenterprises, the relationship between migration and investment in microenterprises should have strengthened during the decade. Both the raw data and regressions suggest that this is exactly what occurred in enterprises owned by males. Attachment to migration networks is positively associated with enterprise size in the latter half of the decade, but not in the earlier part of the decade. The measured effect of migration on invested capital increases in each of the survey years between 1992 and 1998.

The pattern for females is different. Though we generally find a positive association between migration and enterprise investment, the effect is at least as large early in the decade as it is later in the decade. It is not entirely clear why there should be a difference between the two genders. The sample size is much smaller for females, so differences may simply be harder to identify in the female sample. Alternatively, we note the 1990s were a period of rapidly increasing out-migration, but also a period of increasing return migration. Before the 1990s, males were more likely to migrate to the US than were females. Thus, migrants returning in the early 1990s were more likely to be males. It could be the case that money channeled to enterprises run by the female spouses of migrants early in the decade was used by males returning from the US later in the decade. Unfortunately, the ENAMIN data do not allow us to examine this possibility more carefully.

With respect to the use of labor in enterprises, we find limited evidence that migration is associated with increased demand for workers in microenterprises. Among females, we do find robust evidence of an association between migration and the use of unpaid family workers. However, we find no evidence that this association strengthened during the 1990s. Kernel densities of profits, adjusted for measured characteristics such as the entrepreneurs education level, do suggest that migration is associated with higher profits for microenterprises. Though the difficulty of estimating profit regressions limits the evidence in this regard, this is certainly one of the most important indicators of the migration effect.

Surveys asking households in Mexico how they use remittances routinely find that the overwhelming majority of remittances are spent on current consumption. The ENAMIN data suggest that either these surveys understate the amount of remittances allocated to microenterprise investment, or that the small amounts (usually around 5%) reported in these surveys cumulate over time to produce a significant effect on enterprise investment. The Inter-American Development Bank (IDB) has recently begun projects in several Latin American linking microlenders in migrant-sending countries with remittance transmission firms in the migrant-receiving countries. Perhaps these projects will provide additional evidence on the link between remittances and productive investments in the migrant-sending countries.

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Contents

# INTAL PUBLICATIONS

## Regular Publications

*Integration & Trade*. Two journal issues (English and Spanish) by subscription or individual issue purchase.

*INTAL Monthly Newsletter* (English, Portuguese and Spanish - Internet).

## Sub-regional Integration Reports

*Andean Report*. Annual publication (Spanish). English version: Internet.

*CARICOM Report*. Annual publication (English).

*Central American Report*. Annual publication (Spanish). English version: Internet.

*MERCOSUR Report*. Annual publication (English, Portuguese and Spanish).

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*Rueda de Negocios.*

# Red INT SERIES

## The Integration Research Centers Network (RedINT)

**Second Call:**

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