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Remittances and Inequality: A Question of Migration Stage and Geographic Scale*

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Abstract: Over the past decade, the benefits from economic globalization have bypassed most developing countries, and as a result international wage-labor migration has taken on new importance. The impact of remittances on migrant origins is still, however, a subject of considerable debate. Some researchers find that remittances tend to increase income inequalities, whereas others find just the opposite—even, upon occasion, when they are writing about the same place. This study offers a spatiotemporal perspective in which the stage of migration and the spatial scale at which inequalities are measured are conceptualized as controls that help explain these divergent views. I describe a case study, based on 1988 household survey data collected in central Zacatecas state, Mexico. Interfamilial inequalities are found first to decrease and then to increase as a place's migration experience deepens. Throughout this experience, however, rural incomes improve relative to urban ones, since remittances are targeted to the predominantly rural areas of origin.

Key words: wage-labor migration, remittances, income inequality, migration stage, spatial scale.

Remittances from international wage-labor migration are often viewed as a popular response by the Third World to the failure of both formal and spontaneous mechanisms to equalize incomes among nations in the current world economy. This view is fundamentally different from that of authors such as Wallerstein (1979) and Frank (1978), who view international migrants as just another of several flows—capital, commodities, labor, inventions, entrepreneurship—manipulated by international capital to achieve its goal of recapturing control of the world economy. Structuralists tend to view migrants as unwilling pawns, dependent on forces out-

side their control that disrupt their lives, destroy their traditional livelihoods, and create new cleavages in local economies and societies. But the international migration literature since the mid-1980s, when “market triumphalism” took hold (Peet and Watts 1993), suggests that migrants are not pawns. Their migration is based on the decisions of individual families responding to basic human needs, and consequent disruptions have to be balanced against these families' (and villages') existing hopelessness and marginality.

Furthermore, remittance flows are arguably more progressive (income redistributive) than are other international flows. They are directed to migrant towns and villages in the backward regions of Third World and a few First World nations—regions such as Anatolia in Turkey (Griffin 1976), Granada in southern Spain (Rhoades 1979), the Ilocano coast of northern Luzon (McArthur 1979), Zacatecas in central Mexico (Mines 1981), and the Lesser Antilles in the West Indies

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(Rubenstein 1982). With migration, families of these regions are often able to improve their income positions vis à vis those of more economically advanced regions. Furthermore, unlike other international flows into such regions, remittances reach the hands of thousands of migrant families, rather than families of a few entrepreneurs or social leaders. The decision-making power behind migration and behind the spending of remittance earnings is similarly dispersed. Contrast this with the concentration of decision making in other matters that profoundly affect the lives of rural poor in developing nations, such as agricultural credit and infrastructural improvements by national and state government officials, establishment of local industry and commerce by entrepreneurs, provision of adequate city services by local government officials, social and political leadership by local elites, and so forth. It follows that for the poor international migration may be a more certain and secure pathway to economic and social mobility than local opportunities within the existing system (Grindle 1988, 38).

Remittances, international and internal, retain significant importance among peripheral nations vulnerable to the new global economic order that took hold in the mid-1980s. Before then, peripheral nations were encouraged by notable success stories in the Far East and Latin America, by the focus on "alternative development" schemes, and especially by the "New International Economic Order" institutionalized in the United Nations Declaration of 1974. This declaration called for replacement of the existing economic order, characterized by inequality and domination, by one based on equity and interdependence (Todaro 1989, 609-12; cited in Dicken 1992, 456-58). Unfortunately, recent globalization has created regional trading blocs that exclude much of the developing world, and the demise of communism and an emerging political conservatism worldwide have shriveled foreign aid and tightened debt and investment requirements

(Ihonvbere 1992). In light of these developments, remittances may be viewed as important survival mechanisms for many peoples (e.g., Keely and Tran 1989). This is not to say that remittances were not important before; but simply that with increasing global inequalities, new superpower priorities, and exclusionary trade blocs, remittances have increased in importance for the Third World.

International remittances have not succeeded in reducing the worldwide income gap, despite the fact that they have remained high on a per capita basis. Johnston, Taylor, and Watts (1995, 16) note that between 1960 and 1990 the per capita income ratio between the top 20 percent (in per capita income) and the bottom 20 percent of the world's countries rose from 30 to above 60! Nor have remittance transfers fomented economic transformation and development in backward regions. The relevant question, however, is whether the families of these regions are better off with migration and migrant remittances than without them. Keely and Tran (1989, 504) argue that "macroeconomic opportunities are provided by [remittances from international labor migration] that are hard to conceive being available from any other source. Though not without pitfalls, it seems to be myopic to presume that any government would forego, even if it could do so, availing itself of those opportunities. . . All gains are not merely private, but have important, positive macroeconomic effects."

It is fair to say that although many analysts agree that remittances help to redistribute income among countries, they profoundly disagree on whether this is true among families, villages, or urban areas. Are remittances funneled toward the already better-off families and towns, promoting further income inequalities? Or toward the poorer families and towns, promoting income convergence? More generally, under what conditions do remittances increase inequalities, and under what conditions do they reduce them? Does the stage of migration and the unit of analysis

chosen influence the conclusions about inequality? I attempt to answer these questions in this paper.

The Migration-Remittance System and Inequalities

Before directly addressing remittances and inequality, I consider remittances within a systems framework specifying causes and effects. Russell's (1986) decision model of the remittance system shows how the availability of remittable income, the decision to remit (and how much to remit), the networks used, and the decision on how to use remittances is a linear, linked process undergone by each migrant or family, with each link having separate determinants. The most interesting and relevant aspects of her model, however, are the long-range consequences of remittances—aspects included in her empirical discussion but not in the model itself.

In an effort to build upon the Russell model, I offer an expanded version, the "Migration-Remittance System" (Fig. 1), including explicit determinants and long-range consequences. The notion that migration characteristics are associated with development characteristics over time and space is not new; Zelinsky (1971) first addressed this possibility in his hypothesis of a "mobility transition." Zelinsky's hypothesis states that the magnitudes and directionalities of different migration flows are a consequence of development stage. My model is more specific, dealing with international migration and with only one aspect of development (inequality); in addition, in this paper migration is a cause of development (or underdevelopment), rather than a consequence. In the migration-remittance system, a key determinant of the size and use of remittances is *migration selectivity*. Many studies have shown that the process of international migration selects particular demographic subgroups of the local population. In turn, these subgroups send remittance income back to their families in proportion to their migra-

tion experience (McArthur 1979; Rhoades 1979; Massey et al. 1987, 125–38, 221). Several authors have argued that if such migrants come from lower-income families their remittances will serve to decrease interfamilial income inequalities at the origin, whereas if they come from upper-income families income equalities will be increased (Stark, Taylor, and Yitzhaki 1986; Cavaco 1993; Braun 1991; Jones 1995, 81–84). (Of great significance here, however, is how we define "origin"; see the discussion of spatial scale below.) Migration selectivity also influences inequalities in another way—in *where* and *how* families spend their remittance income. Families of above-average income tend to spend more of their income outside the town of origin, including more on imports (Brana-Shute and Brana-Shute 1982; Wiest 1984; Jones 1995, 78–81, 90–92), with the result that remittances into rural areas are siphoned away by urban centers. Families of below-average income spend more locally, and thus more is recirculated in the local rural economy. In addition, above-average-income families spend more on large consumer durable goods, housing, land, human capital (health and education), and on business investments (Russell 1986, 686–87). Again, the reverse is true when migrants are from below-average-income families. Finally, host country factors—such as the nature of the job at the destination (McArthur 1979), the wages earned and the cost of living at (and traveling to) a given destination (Rhoades 1979), the networks and channels through which money is remitted (Wood and McCoy 1985; Conover 1985), and the migrant's degree of integration into the host society (Massey 1986; Cornelius 1991; Jones 1992)—all strongly affect remittances and, in turn, inequality.

In the model, the consequences of remittances for families in the region of origin are also of academic and practical interest. There is, however, no consensus on whether remittances have a positive or negative impact on such families. In part, this is because authors disagree on what

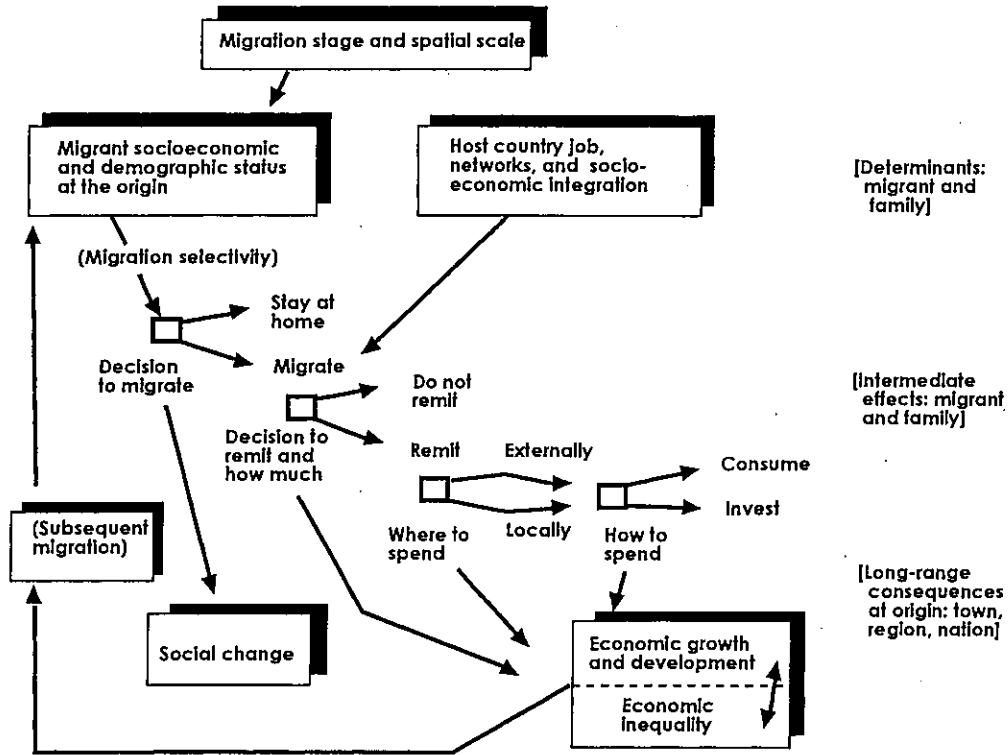


Figure 1. The migration-remittance system. Source: based on Russell (1986).

type of migration selectivity—positive or negative—is actually taking place. Figure 1 includes four strongly debated long-range consequences of international migration and remittances. Regarding *economic growth and development*, structuralists see disinvestment, conspicuous consumption, economic stagnation, and dependency (Brana-Shute and Brana-Shute 1982; Fergany 1982; Reichert 1981; Wiest 1984), whereas functionalists find substantial local investment and economic growth, if not development (Conway and Cohen, this issue; Adelman, Taylor, and Vogel 1988). In regard to *social change*, the structural school emphasizes social disintegration at the family and village levels (such as absent fathers and husbands and depreciation of village life-style and livelihoods) (Cobbe 1982; López Castro 1986), whereas the functional school argues that migration

gives hope of upward mobility where none existed and enables families to maintain their rural roots rather than pulling them up and moving elsewhere (Conway 1985; Grindle 1988, 39). Regarding the impact of remittances on *subsequent migration*, structuralists postulate a “migrant syndrome” that addicts migrant families to perpetual return trips (Reichert 1981; Kritz and Keely 1981, xxv), whereas functionalists cite examples of remittance reinvestment in productive ventures that obviate or lessen the need for further migration (Jones 1995, 2, 120).

The remittance consequence of most interest in this paper is *economic inequality*. Since migration selectivity is an important determinant of who gets the remittances and since who gets them determines changes in interfamilial inequality, it follows that inequality is strongly influenced

by the selectivity process itself. Structuralists argue that migrants tend to be drawn from above-average-income families in towns of origin, creating a "migrant elite" (Lipton 1980; McArthur 1979; Reichert 1981; Mines 1981) that exacerbates inequalities. Functionalists counter that it is those of below-average income who migrate, reducing inequalities within towns of origin (Griffin 1976; Cavaco 1993; Taylor 1987; Stark, Taylor, and Yitzhaki 1986). Functionalists also note that from a regional perspective migrant remittances improve rural over urban incomes, replacing the narrow traditional elites with a populous, emergent rural migrant class (Keely and Tran 1989; Jones 1992). Occasionally, authors writing about the same place come to different conclusions about inequality. For example, Griffin (1976, 357) concludes that Turkish wage-labor emigrants come "from the poorest groups in the country," and "emigration of the peasantry probably reduces inequality and . . . this is one of several mechanisms which tends to raise the income of the rural poor." Atalik and Beeley (1993, 170), also dealing with Turkish emigrants, reach a different conclusion: "for the distribution of personal income across the country, there is no sign of a beneficial effect of remittances on the pattern of inequality which has remained much the same, at least since 1973." As another example, Stark, Taylor, and Yitzhaki (1986, 730) find that in an emigration-prone village on Lake Pátzcuaro in northern Michoacán, Mexico, "the impact of migrant remittances upon income inequalities tends to become more favourable [i.e., inequalities are reduced] . . . as migration opportunities spread throughout the village." But Reichert (1982, 415), summarizing his research on another emigration-prone village, also in northern Michoacán, writes that "the generally higher income of legal migrants afforded them privileged access to scarce local resources, with the result that productive wealth became concentrated in the hands of families containing those individuals."

Such differences are often puzzling. They hint that important controls are at work in the migration-remittance system.

A Spatiotemporal Perspective on Remittances and Inequality

Different conclusions on inequality may stem from the fact that one author is referring to inequality among states or regions of the country; another, between rural and urban areas; another, among minor civil divisions such as counties; and another, among persons or families. The differing conclusions may also derive from the fact that the places (or types of places) are at different stages of the migration process—with one place just beginning to send migrants, another with a moderate level of experience, and another at an advanced stage, having sent migrants for many years. Thus, migration stage and spatial scale are *controls* on the relationship between migrant selectivity, remittances, and inequality (Fig. 1, top). They influence not so much migrant behavior, as how we conceptualize and explain this behavior and its consequences. They are controls that operate at the level of the town and region, not at the level of the migrant and family.

These controls help explain the examples given at the end of the last section. Closer inspection indicates that in the case of Turkish emigration, Griffin is referring to *rural-urban differences*, which are decreasing as a consequence of the fact that most emigrants are rural, and remittances are thus bringing their incomes closer to those of urban dwellers. Atalik and Beeley, by contrast, are referring primarily to *differences among persons*; these have changed little because remittances have gone into the hands of both the rural poor and the already privileged rural middle and upper classes. In the Mexican case studies, Stark, Taylor, and Yitzhaki's village is in an expansionary, *middle stage* of U.S. migration (remittances account for about a quarter of total income). Remittance income is spreading from higher- to lower-

income members, and thus inequalities are decreasing. Reichert's town, on the other hand, is at an *advanced stage* (with between half and three-quarters of its income from U.S. migrant remittances). A migrant elite is extending its dominance over a nonmigrant class. This elite—a legal migrant class—maintains strong ties with the United States as well as with the home village. At the other end of the income spectrum, a “laggard” nonmigrant class relies on local agriculture. This class lags behind the migrant class, both economically and socially.

Empirical Evidence

Recent comparative and historical studies offer proof that stage of migration may influence a town's level of (interfamilial) income inequalities. Rhoades (1979) identifies three periods in the migration history of Alcutia, Granada, in southern Spain. “Pioneer” migrants began seeking work in Germany in 1961; they came from higher-status families who had both the risk-taking propensity and the initial expense money to undertake such a venture. An expansionary stage in the 1960s involved more and more families, until by the early 1970s 75 percent of all able-bodied males had made the trip to West Germany. This phase was marked by the spread of benefits in the form of lifestyle, farming, and business expenditures to much of the population. The final phase was marked by a cessation of new migration (coinciding with Germany's cancellation of its guest worker program) and by increasing economic leadership in the local economy by the new migrant entrepreneurial class vis à vis the established professional/landlord class and the poor non-migrant class.

A similar migration history has been outlined by Massey et al. for Altamira, Jalisco, a subsistence agricultural town in Mexico's migrant hearth (1987, 46–62). Pre-1942 (pre-bracero) migrants to the United States were drawn predominantly from the property-owning class of *agricultores*—persons with a “spirit of adventure and motivation,” as well as money to make the long trip

north by rail. From the early 1940s to the early 1970s migrants were drawn from a much broader spectrum of social classes, induced by the bracero program and by a severe drought in the 1940s. The most recent period is marked by a migrant elite, whose possessions and incomes place them increasingly above a residual nonmigrant class (Massey et al. 1987, 211, 224–26). In both the Spanish and the Mexican examples, interfamilial inequalities increase, then decrease, and then increase again as migration selectivity changes.

Other comparative studies illustrate the role of spatial scale in inequalities. In a recent study of return migration to Portugal, Cavaco (1993) examines both interregional inequality (based on municipality data for all of Portugal) as well as inequality among families at the village level. At the national level, she finds that the underdeveloped northern municipalities—the traditional migration hearth for emigration to Brazil, France, and Germany—send the most migrants and receive the most remittances. This tends to equalize incomes relative to the more developed south. At the village level, however, a new migrant social hierarchy has formed, in which “returnees who before emigration were peasants or the sons and daughters of peasants became part of the bourgeoisie upon return” (Cavaco 1993, 183). In the long run, local inequalities increase as a result of migration.

In another study, Grindle (1988, 107–17) comments on inequalities in Unión de San Antonio, a U.S.-migration-prone *municipio* in northern Jalisco. The town of Unión de San Antonio, dry and unproductive agriculturally, is surprisingly prosperous compared to other towns in the vicinity, owing to migrant remittances. Its economic status, relative to such regional centers as León, Lagos de Moreno, and Guadalajara, has been improved by migration. On the other hand, a privileged migrant class has emerged in the town, as migrants have reinvested their remittances in family businesses. Quoting one observer, Grindle notes that “here (in La Unión),

individualism predominate.' (1988, 116); and elsewhere, "migrants are those who most want to better themselves" (1988, 113). In this and the Portuguese example, spatial scale influences conclusions about inequality.

A Stage Model of Migration and Inequality

A systematic argument explaining changes in selectivity and inequality across migration stages is found in two social science theories: the theory of innovation diffusion (Rogers 1983, 163–209) and the theory of income distributions (see, especially, Stark, Taylor, and Yitzhaki 1986). Analysts have suggested that international migrants come from different parts of the income distribution of a town (or region), depending on the stage of migration. Figure 2, which illustrates the appearance of the family income distribution for different migration stages, graphically illustrates such a situation. In the *Innovator Stage*, before any significant migration from the town, only the most ambitious and adventuresome migrants will make the trip, and these migrants will be positively selected from a small number of families that are already fairly well off. Their remittances, coupled with their already superior incomes, skew the income distribution to the right. Income inequalities in the town increase during this stage. In the *Early Adopter Stage* migration has diffused down the income distribution, via communications between the innovators and other residents. Remittances are now reaching a large group of families, including progressively more of the less well-off. The income distribution is normalized, and income inequalities decrease. Overall, this stage exhibits relatively low income inequalities. In the *Late Adopter Stage*, continued migration has created an international migrant class that stands increasingly apart from an expanding nonmigrant class composed of poor families who have never sent migrants or who are inactive. This migrant class is of above-average income. The income distribution in the town has

become negatively skewed and increasingly unequal. Average income inequalities for this stage are high.

This stage model has an implicit spatial component. Theoretically, in the *Early Adopter Stage* local (interfamilial) and regional (specifically, urban-rural) inequality decline together, as remittances are channeled to low- and medium-income families in rural areas. Here, I define rural-urban inequality in terms of the ratio between urban and rural average family incomes; the farther this ratio is from 1.0, the greater the inequality.

In the *Late Adopter Stage*, however, local and regional inequalities move in opposite directions; they increase at the local scale, because now remittances are funneled into above-status rural families, but continue to decline between urban and rural areas, because remittances continue to be disproportionately targeted to the villages and hamlets. (An exception to the late adopter scenario would be found in the situation where remittances to rural areas have lifted rural per capita incomes above those of urban areas. In that event, subsequent remittances would serve to increase, rather than reduce, rural-urban inequalities. That is, a point may be reached where entire rural regions, not just certain classes of families, have been economically elevated to a position above that of urban families.)

Stage, Scale, and Inequalities in Central Zacatecas, Mexico

Study Design

Zacatecas is an ideal area for a test of the spatiotemporal perspective on inequalities and migration. Its mountainous landscape, subsistence agriculture, low incomes, political marginality, and distance from the national urban-industrial core epitomize the problems of peripheral regions in Third World countries. The state is at the northern edge of the Mexican migration hearth (Fig. 3) and is acknowledged as an area of high out-migration to the United States

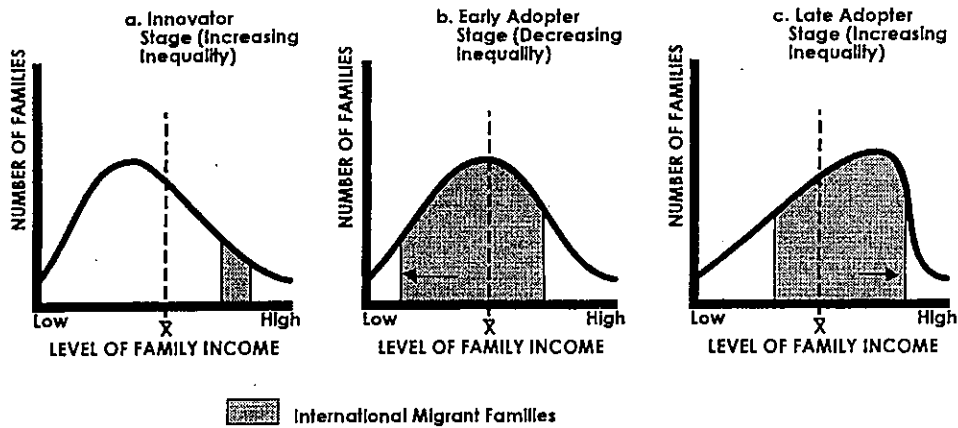


Figure 2. Family income distribution at different stages of international migration for a town (or region).

(Jones 1988). In dollar remittances per capita, it leads the country (Diez-Canedo 1984, 61). Central Zacatecas is the region extending some 160 kilometers (100 miles) from the capital city (Zacatecas). Physically, the region is part of the Sierra Madre Occidental. It is a landscape of basins and ranges, and most of the population lives in the *tierra fría* at elevations of 1,830 to 2,130 meters (6,000 to 8,000 feet).

I selected four *municipios* ("counties") in central Zacatecas for a 1988 household survey of the role of U.S. migration in the economic base of the region. These *municipios* were quite diverse by design. All are situated within 80 kilometers (50 miles) of the state capital of Zacatecas (Fig. 3). The *municipio* of Zacatecas is dominated by the capital city, a regional central place with over 100,000 population in 1990. Jerez and Luis Moya are commercial agricultural *municipios* with some subsistence crops; their *cabeceras* (county seats) serve as agricultural service centers, and had circa 34,000 and 5,000 population, respectively, in 1990. Villanueva is a subsistence agricultural *municipio* with 9,000 people in its *cabecera* in 1990. Outside of these four cities spreads a rural tapestry of some 250 hamlets and villages. This rural area generates most of the migration to the

United States. The migration history of these villages is not uniform: some began migration to the United States more than 50 years ago, while in adjacent villages migration has just begun.

Within each *municipio* I stratified towns and villages by size and location, then selected them randomly within each stratum; this procedure maintained a rural-urban and spatial balance approximating that for the *municipio* in the 1990 Mexican census. Individual households were interviewed randomly within these towns, on a variety of demographic, economic, and migration characteristics. The interview schedule contained detailed questions on the first and latest U.S. migration trips of family members. In addition, family expenditures, savings, and remittances were recorded in detail, from which it was possible to estimate each family's income in 1987. The final sample was 692 households.

Migration Stage and Inequality for *Municipios*

A *municipio's* stage of migration has at least three operational dimensions: incidence (the degree to which its families have participated in international migration); quantity (the amount of migration,

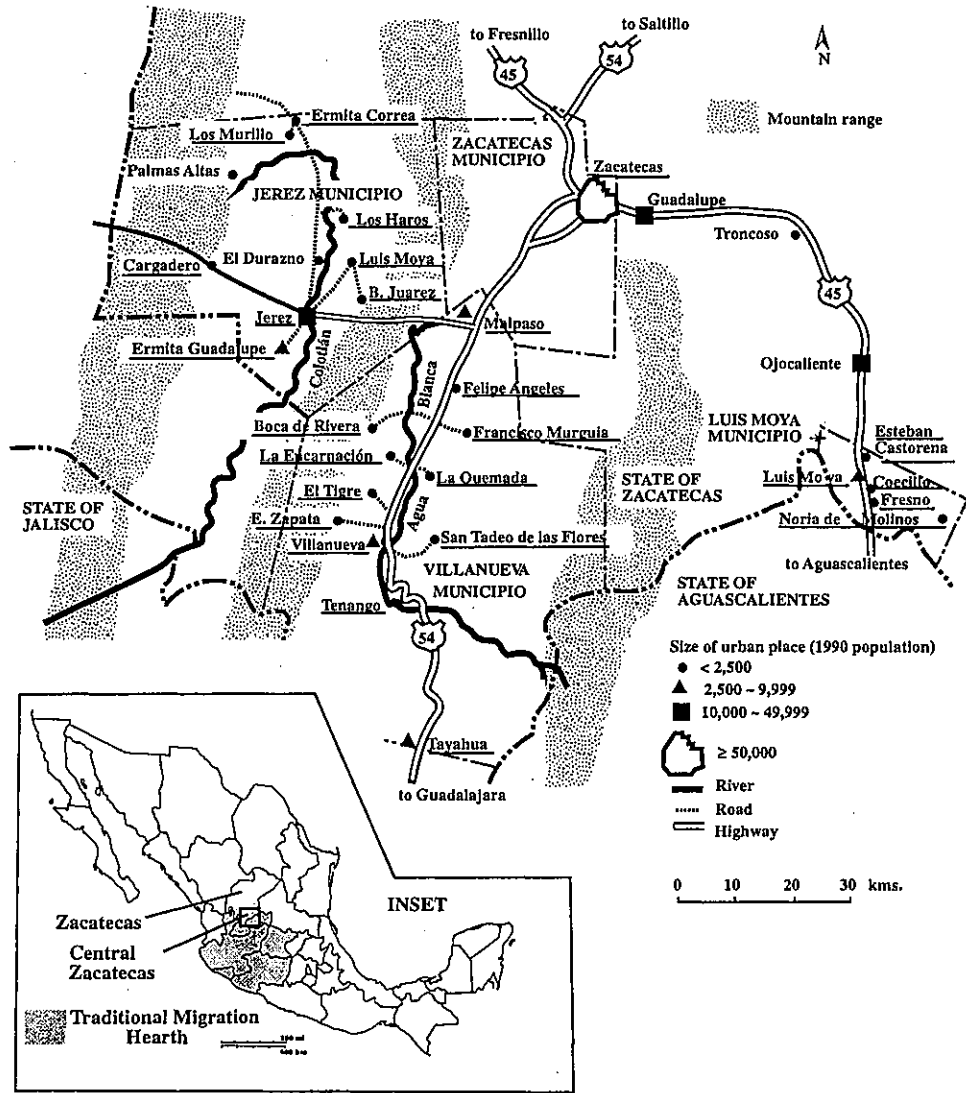


Figure 3. The area of study (underlined places were actually surveyed).

measured in terms of the time spent overseas); and antiquity (how long ago the migration took place) (Jones 1995, 59-61). Here, indicators for each dimension are defined as follows: (1) *incidence*: the percentage of families who have ever sent a member to work in the United States; (2) *quantity*: the percentage of families with five years or more of cumulated U.S. migration experience; (3) *antiquity*: the

percentage of migrant families whose first migrant went to the United States to work prior to 1976. A *municipio* with high values on each of these indicators is considered to be at an advanced stage of migration, and conversely, a *municipio* with low values is at an early stage.

Application of these criteria renders a straightforward ordering of the four *municipios* in terms of migration stage

(Table 1). Zacatecas has low incidence and quantity of U.S. migration, and this migration has been relatively recent (only half prior to 1976). Luís Moya shares this recency, but its incidence and quantity of migration are approximately double those of Zacatecas. Neither of these two *municipios* can compare with the advanced migration profiles of Villanueva and Jerez. Over two-thirds of Villanueva's families have sent U.S. migrants, and in 60 percent of these cases the first trip was prior to 1976. In Jerez, the most advanced of all, nearly 80 percent of the families have a U.S. migrant and almost 70 percent made their first trip prior to 1976. The four *municipios* fit into the migration stages (Fig. 2) as follows: (1) Zacatecas is at an initial point in the early adopter stage, which I will refer to as *Early Adopter, Phase 1*; (2) Luís Moya is *Early Adopter, Phase 2*; (3) Villanueva is *Late Adopter, Phase 1*; and (4) Jerez is *Late Adopter, Phase 2*. As a final point, notice that rural central Zacatecas is at a more advanced stage of U.S. migration than the urban portion of that region (Table 2).

The indicator used for interfamilial income inequality is the interquartile range of 1987 family incomes (from all sources) within each *municipio*. The interquartile range is defined as the difference between the third and first quartile values of a distribution. This measure has two distinct advantages over others in the literature. First, its construction is based on distributional reference points that are "typical" families; contrast this with the standard deviation, which in part because of squaring is often based on an "interstitial" average that may represent no families, partic-

ularly when data are skewed, as is income. Second, it is simple and easily interpreted, unlike various other measures, such as the Theil inequality measure or the Gini coefficient (Coulter 1989, 5-9, 106-11).

Given the migration stage model of family income distributions (Fig. 2), we expect interfamilial income inequalities to decrease during the Early Adopter Stage and increase during the Late Adopter Stage. This is just what the data show (Table 3). The interquartile range of family incomes drops as the stage advances from Early Adopter Phase 1 (Zacatecas) to Early Adopter Phase 2 (Luís Moya); and it increases from Late Adopter Phase 1 (Villanueva) to Late Adopter Phase 2 (Jerez). The same trend is found in the standardized inequality measure, obtained by dividing the interquartile range by the median (this procedure removes the effect of the magnitude of whatever metric is used for income).

There is also evidence that in the Late Adopter Stage *municipios* (Villanueva and Jerez) U.S. migrant households were being drawn from above the (premigration) income mean. This evidence derives from a surrogate for premigration family income, defined by summing the incidence of selected household possessions, thereby indexing past income (i.e., prior to 1987). The proportion of households currently receiving remittances (i.e., in 1987) is clearly higher for households with above-mean values on this possession index than for households with below-mean values. This suggests that in communities with advanced U.S. migration, migrant families

Table 1
Indicators of U.S. Migration Stage for Four Central Zacatecas *Municipios*, 1987

Indicator	Overall (N=692)	Luís			Jerez (N=192)
		Zacatecas (N=96)	Moya (N=102)	Villanueva (N=302)	
Families ever sending U.S. migrants(%)	63.9	30.2	53.9	68.2	79.2
Families with 5 years of U.S. migration(%)	26.6	7.3	18.6	27.8	38.5
Families with 1st migrant prior to 1976(%)	61.3	51.7	47.3	60.3	69.5

Source: 1988 survey of families in central Zacatecas.

Table 2
U.S. Migration Stage by Rural-Urban Status, Central Zacatecas, 1987

Indicator	Overall (N=692)	Rural	Urban
		(<5,000 Population) (N=388)	(≥ 5,000 Population) (N=304)
Families ever sending U.S. migrants(%)	63.9	71.1	54.6
Families with 5 years of U.S. migration(%)	26.6	31.7	20.1
Families with 1st migrant prior to 1976(%)	61.3	62.6	59.0

Source: 1988 survey of families in central Zacatecas.

Table 3
U.S. Migration Stage and Interfamilial Income Inequality for Four Central Zacatecas
Municipios, 1987

Income Characteristic	Overall (N=692)	Stage of Migration			
		Early Adopter		Late Adopter	
		Phase 1 Zacatecas (N=96)	Phase 2 Luís Moya (N=102)	Phase 1 Villanueva (N=302)	Phase 2 Jerez (N=192)
Median family income (1,000 pesos 1987)	2,584	3,174	2,097	2,205	3,190
Interquartile range of income ^a	2,935	3,264	1,677	2,297	3,897
Standardized interquartile range ^b	1.136	1.028	0.800	1.042	1.222

Source: 1988 survey of families in central Zacatecas.

^aDifference between the third and first quartiles of income, $Q_3 - Q_1$.

^bThe interquartile range divided by the median, $(Q_3 - Q_1) / Q_2$.

solidify their superior class positions relative to nonmigrant families, although remittance-receiving families are found at all points on the possessions spectrum, implying a broad-based migrant class rather than a narrow elite. Internal migrant remittances (from within Mexico) appear to have a similar effect; but in emigrant Mexican regions such as Zacatecas, research has shown that internal migration tends to be of minor importance (Jones 1995, 115; Zazueta and Corona 1979).

Migration Stage and Interfamilial Inequality for Towns

The aforementioned trend is based on four data points (four *municipios*); considerable variation in migration stage is possible for towns within the *municipios*. Therefore, the *town* may be a better func-

tional unit for considering migration stage than the *municipio*. The problem with considering stage and inequality at the town level is the small number of interviews (N) in several places: in 11 of 26 towns, N is less than 15, and in 7 towns, less than 9. Nevertheless, by eliminating the 7 places with $N < 9$ (Coecillo, Fresno, Los Murillo, Luís Moya, B. Juarez, San Tadeo de las Flores, and Tenango [Fig. 3]) and the 2 with $N < 15$, in which incomes are too skewed to allow unbiased interpretation (Ermita Correa and Boca de Rivera), we arrive at 17 towns with relatively normalized distributions of income, in which at least 9 families were interviewed (Table 4).

Despite the small number of towns, we can now test more definitively the relationship between migration stage and interfamilial inequality in central Zacatecas. For

Table 4
U.S. Migration Stage and Interfamilial Income Inequality for 17 Towns in Central Zacatecas, 1987

Town	Migration Stage: Families with ≥ 5 Years of Migration (%)	Inequality: Standardized Interquartile Range of Income ^a	Median Family Income (1,000 pesos)	Population in 1987	Agricultural, Business, and Government Income Which is Basic ^b (%)	Number of Families Interviewed (N)
Zacatecas ^f	7.3	1.028	3,174	99,000	80.0	96
Malpaso ^e	12.5	1.132	1,723	3,140	11.5	40
Luis Moya ^d	14.8	1.063	2,266	4,660	72.9	61
Villanueva ^e	21.1	1.058	2,618	7,290	53.0	109
Francisco Murguía ^e	22.2	0.697	2,272	810	18.3	9
Esteban Castorena ^d	22.2	1.017	1,755	970	25.2	18
El Tigre ^e	25.0	0.769	1,445	850	12.1	12
Jerez ^e	31.3	1.143	2,938	29,660	59.8	99
Emiliano Zapata ^e	33.3	0.833	3,536	360	5.6	9
Tayahua ^e	34.0	0.714	2,129	3,180	29.8	50
Noria de Molinos ^d	40.0	1.307	1,522	740	5.6	15
Felipe Angeles ^e	41.7	1.303	2,126	1,510	15.9	24
Los Haros ^e	43.8	1.776	3,333	1,140	61.0	16
La Encarnación ^e	46.7	1.365	3,730	1,170	5.8	15
La Quemada ^e	50.0	0.850	2,548	970	17.6	12
Cargadero ^e	55.6	2.059	4,240	830	58.9	18
Ermida Guadalupe ^e	66.7	1.646	4,753	3,000	27.4	18

Source: 1988 survey of families in central Zacatecas.

Note: The dotted line separates those towns in which <30% of the families have at least 5 years of U.S. migration experience from those in which $\geq 30\%$ of the families have such experience.

^aThe interquartile range, which is the difference between the third and first quartiles of income, $Q_3 - Q_1$, divided by the median: $(Q_3 - Q_1) / Q_2$.

^bBasic income is that which derives from sales of goods or services outside of the town.

^cLocated in Jerez *municipio*.

^dIn Luis Moya *municipio*.

^eIn Villanueva *municipio*.

^fIn Zacatecas *municipio*.

simplicity, a single indicator (the percentage of families with ≥ 5 years of U.S. migration) is selected to represent migration stage; in previous studies, this indicator offered the clearest detailed explanation of family economic behavior (Massey et al. 1987, Chap. 8; Jones 1995, Chap. 4). The result is a moderately strong positive correlation ($r_p = 0.597$) between migration stage and inequality (Table 5). This suggests that U.S. migration in central Zacatecas has advanced to the degree that

in the more migrant-prone towns a well-off migrant class benefits from remittances at the expense of a poor nonmigrant class, increasing the gap between the two as migration continues.

Inspection of the scatter diagram for this relationship (Fig. 4), however, suggests two separate trends: (1) for towns in which fewer than 30 percent of the families are long-term migrant households (≥ 5 years of U.S. migration) inequality *decreases* with increasing quantity of migration ($r_p =$

Table 5

Correlations between Interfamilial Inequality, U.S. Migration Stage, and Other Indicators for 17 Towns in Central Zacatecas, 1987

Indicator	Pearsonian Correlations (r_p) between Inequality ^a and Other Indicators		
	All Towns ($N=17$)	Towns Where <30% of Families are Long-Term U.S. Migrants ($N=7$)	Towns Where \geq 30% of Families are Long-Term U.S. Migrants ($N=10$)
Migration Stage: Percentage of families with \geq 5 years of U.S. migration	0.597	-0.612	0.621
Income: Median family income, 1987	0.609	0.226	0.552
Population Size: Town population, 1987	-0.098	0.206	-0.136
Basic Activities ^b as a percentage of total	0.290	0.440	0.511

Source: 1988 survey of families in central Zacatecas.

^aInequality is measured by the interquartile range, which is the difference between the third and first quartiles of income, Q_3-Q_1 , divided by the median: $(Q_3-Q_1)/Q_2$.

^bBasic activities are defined as those whose income derives from sales of goods or services outside of the town; includes agricultural, business, and government activities serving areas outside the town.

-0.612); (2) for towns in which 30 percent or more are long-term migrant households, inequality *increases* with quantity of migration ($r_p = 0.621$) (see Table 5). Inspection of residuals from the global relationship also suggests a nonlinear relationship: they tend to be positive for early and late migration stages and negative for middle stages (Fig. 4). Just as for the *municipio*-level analyses, these findings suggest that inequalities decline and then rise over the course of a town's international migration history, offering further support for the stage model of migration and inequality (Fig. 2).

The question arises of whether alternative explanations for the observed variation in inequality may exist. For example, is rising inequality simply a function of rising per capita incomes? Considerable literature suggests that the early stages of economic growth are highly unequal in terms of who benefits. Or is inequality due to a town's population size, in that larger towns possess more diversified, heterogeneous economies offering more opportunity for income disparities? Or is inequality a func-

tion of the proportion of a town's economy that is basic (i.e., derived from external demand for the town's goods and services)? The community economic base literature suggests that in small towns local income multipliers are low (i.e., relatively little basic income is spent in the town), and therefore the benefits of such income are concentrated in the hands of those fortunate enough to be involved in the basic sectors.

The small sample sizes make multivariate regression analysis impractical, but simple correlations (r_p) and logic advise that these other indicators are not as important as migration stage itself (Table 5). Neither population size nor the percent basic indicator exhibits an r_p of greater than ± 0.300 . However, median family income apparently is moderately related to family income inequality ($r_p =$ circa 0.600). Therefore, on the surface, income and migration stage are equally important determinants of inequality. The argument can be made, however, that in central Zacatecas migration stage influences the magnitude of U.S. migrant remittances,

which in turn influences local income levels. (Again, we are not talking about individual migrant or family behavior, but about *aggregated migration* and remittances for the town—who participates and who gains from it.) Thus, migration stage helps explain median town income (an r_p of 0.598 between migration stage and median income bears this out) and, in turn, income inequality.

Spatial Scale (Rural versus Urban) and Inequality

The stage model postulates that income inequality between rural and urban areas decreases with the progression of migration from Innovator to Late Adopter stages. It is not possible to test this postulate for the Early Adopter Stage because a ratio of urban-to-rural income cannot be calculated for Zacatecas or Luis Moya: Zacatecas is entirely urban, while Luis Moya is entirely rural. In the Late Adopter Stage, Villanueva and Jerez have a mixture

of rural and urban population, however, and thus the ratio can be calculated. The expectation is that Villanueva, in Phase 1 of the Late Adopter Stage, will exhibit a ratio of urban-to-rural income farther from 1.0 than will Jerez, in Phase 2.

Clearly, the data do not support this assertion. Median urban incomes in Villanueva are 23.3 percent above rural incomes, and in Jerez, they are 22.9 percent below (Table 6)—that is, inequality has remained about the same. Nevertheless, beyond our narrow definition of inequality, something noteworthy is occurring here: urban income superiority has been replaced by rural income superiority! Mexican social history suggests that it is highly unlikely that incomes in rural Jerez have always exceeded urban incomes. We must acknowledge a long-term transition between Late Adopter Stages 2 and 3, in which, some decades ago, U.S. migration for Jerez equalized incomes between rural and urban areas; subsequently, a broad-

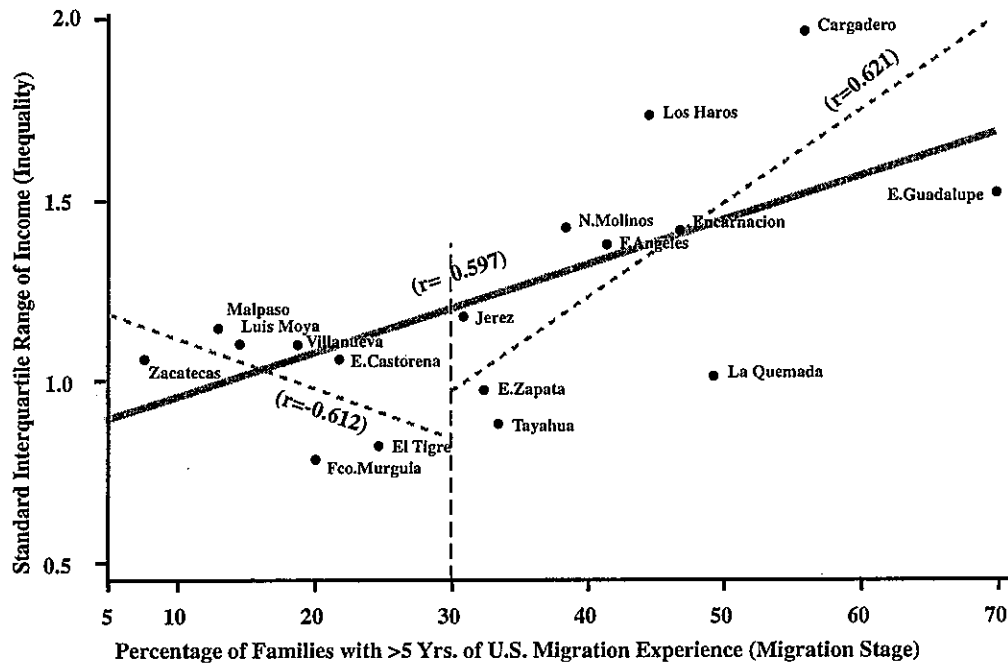


Figure 4. Relationship between migration stage and inequality for 17 towns.

scale rural elite was created that surpassed (in the aggregate) the incomes of the urban elite. This scenario fits the history of the *municipio*: in recent decades, a dynamic commercial agriculture has stood in contrast to an anemic urban service economy serving its immediate region (Jones 1995, 38-39, 119-21). The evidence from elsewhere in Mexico also suggests that agricultural improvements stimulated by former migrants have enabled the farming class to rise above the traditional urban business class. It is not possible to verify unequivocally a process as complicated and long-term as this with cross-sectional data. Other research does, however, support the process.

Based on these data, I reject the notion of declining urban-rural inequality, but discover that U.S. migration progressively improves the income position of rural versus urban dwellers. Further support for this statement is found in a comparison of the ratios between urban and rural median incomes (Table 6) for all families and for nonmigrant families alone. (I assume that nonmigrant incomes represent what a *municipio*'s income would be if it had no U.S. migration.) For Villanueva, without migration, urban incomes would exceed rural ones by 47 percent, versus only 23 percent in actuality (with migration). For Jerez, without migration, urban incomes would be 94 percent those of rural incomes, whereas they are only 77 percent in actuality (with migration).

Conclusions and Implications for Further Research

There is little agreement on whether the local impacts of remittances have been positive or negative relative to four dimensions: (1) local growth and development; (2) social change; (3) the incidence of subsequent migration; and (4) the reduction of local inequalities. This lack of agreement is in part due to the complex web of conditions that shape migration and remittances. These conditions include migration selectivity at the origin, economic characteristics of the destination job, and how remittances are transferred and spent. Each of these has profound effects on conclusions about inequalities.

I argue that two factors help to explain the divergence of views on labor migration and inequality: a place's *stage of migration* and the *geographic scale* (interregional, interurban, rural-urban, interfamilial) at which the inequalities are measured. With regard to stage of migration, evidence from central Zacatecas, Mexico, supports the proposition that interfamilial inequalities decrease with migration experience up to a point, after which they increase. With regard to geographic scale, I find that at family scale, better-off families improve their status at the expense of poorer families, with advanced stages of U.S. migration. At the rural-urban scale, by contrast, advanced stages of migration result in rural

Table 6
Urban-Rural Income Ratios in the Late Adopter Stage, Central Zacatecas, 1987

Income Characteristic	Villanueva, Late Adopter Phase 1			Jerez, Late Adopter Phase 2		
	Urban (N=109)	Rural (N=193)	Urban-Rural Ratio	Urban (N=99)	Rural (N=93)	Urban-Rural Ratio
Median family income, all families, in 1,000 pesos	2,618	2,174	1.233	2,938	3,812	0.771
Median family income, nonmigrant families, in 1,000 pesos	2,165	1,469	1.474	2,954	3,148	0.938

Source: 1988 survey of families in central Zacatecas.

places' improving their income positions vis à vis urban places.¹

The Zacatecas results suggest that remittances may play a unique role in regional and familial income and income inequality in Third World regions that are being bypassed by global trade liberalization. Under such liberalization, the more dynamic regions may be affected by foreign exchange-generating activities such as commercial agriculture, mining, export-oriented industrialization, or tourism; but migrant remittances may be the only export income reaching the poorest regions. These remittances apparently preserve rural places and rural livelihoods that otherwise would eventually disappear, their residents forced to move to urban areas in search of work. The flow of remittances enables migrants to maintain their rural roots even as they depend on the modern, high-technology sector for their livelihoods. Furthermore, migrants often invest their remittances in activities that make them less dependent on migration in the future. These include investments in agricultural inputs or family businesses as well as in education and health, which ensure future productivity. Finally, in the process of creating a new, broad-based, upwardly mobile migrant class, traditional

¹The lack of longitudinal data on migration, remittances, and economic class position for *municipios* and towns has necessitated inferring inequality change from static data—that is, from the current inequality levels of places determined to be at a particular stage of U.S. migration. In order to ameliorate this problem, I undertook follow-up research in two of the *municipios* of central Zacatecas (Villanueva and Jerez) in 1995–96. These data are in the early stages of coding and computerization. Elsewhere, longitudinal research has been undertaken for western Mexican towns by Douglas Massey, Wayne Cornelius, and their colleagues. This research has yielded many useful conclusions about the evolution of U.S. migration in these communities, although the research has not tended to focus on family income and inequality as a result of U.S. migration.

“exploitative” elites are replaced, or their economic and political power are weakened.

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