Do Migrant Remittances Lead to Inequality?[1]

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Remittances to developing countries…

…amount to 240 billion US$ annually

…have potential to disrupt the distribution of income and create a new system of social stratification

Question

How do remittances affect the **wealth inequality** among households in origin communities?

Who migrates?

Who, among migrants, remits?

Prior work asked these questions **separately**, this study connects them.

My Argument

Migration and remittance decisions are connected.

Similar factors determine both outcomes, it is necessary to specify an **integrated model**.

Compared to an isolated model of remittances, the integrated model leads to significantly **different conclusions** about the distributional impact of remittances in Mexico.

Theoretical Framework

Motives for Migration

- Increasing earnings (Neoclassical microeconomics)
- Diversifying risks to earnings (New economics of labor migration)

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Motives for Migration

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Motives for Remittances

- Increasing household's welfare (Altruism)
- Future expectations from household (Contractual)

Theoretical Framework - Expectations

	Neoclassical Economics	New Economics of Labor Migration
Migrants are…	Low wealth	Medium/High wealth
Remittances are…	Altruistic	Contractual
Inequality is likely to…	Decline	Increase

Methodological Implications

Remittances are observed for migrants, a non-random subset of the population, leading to **selection bias**.

Threat to external validity: Wrong conclusions about the distributional impact of remittances in the **overall population**

Threat to internal validity: Potentially wrong conclusions about the determinants of remittances even **among migrants**

Study Setting

Mexico-U.S. migration

- the largest migration stream in the world
- started with the Bracero program (1942-1964)
- continued with chain migration and increasing undocumented migrant streams (1965-present)

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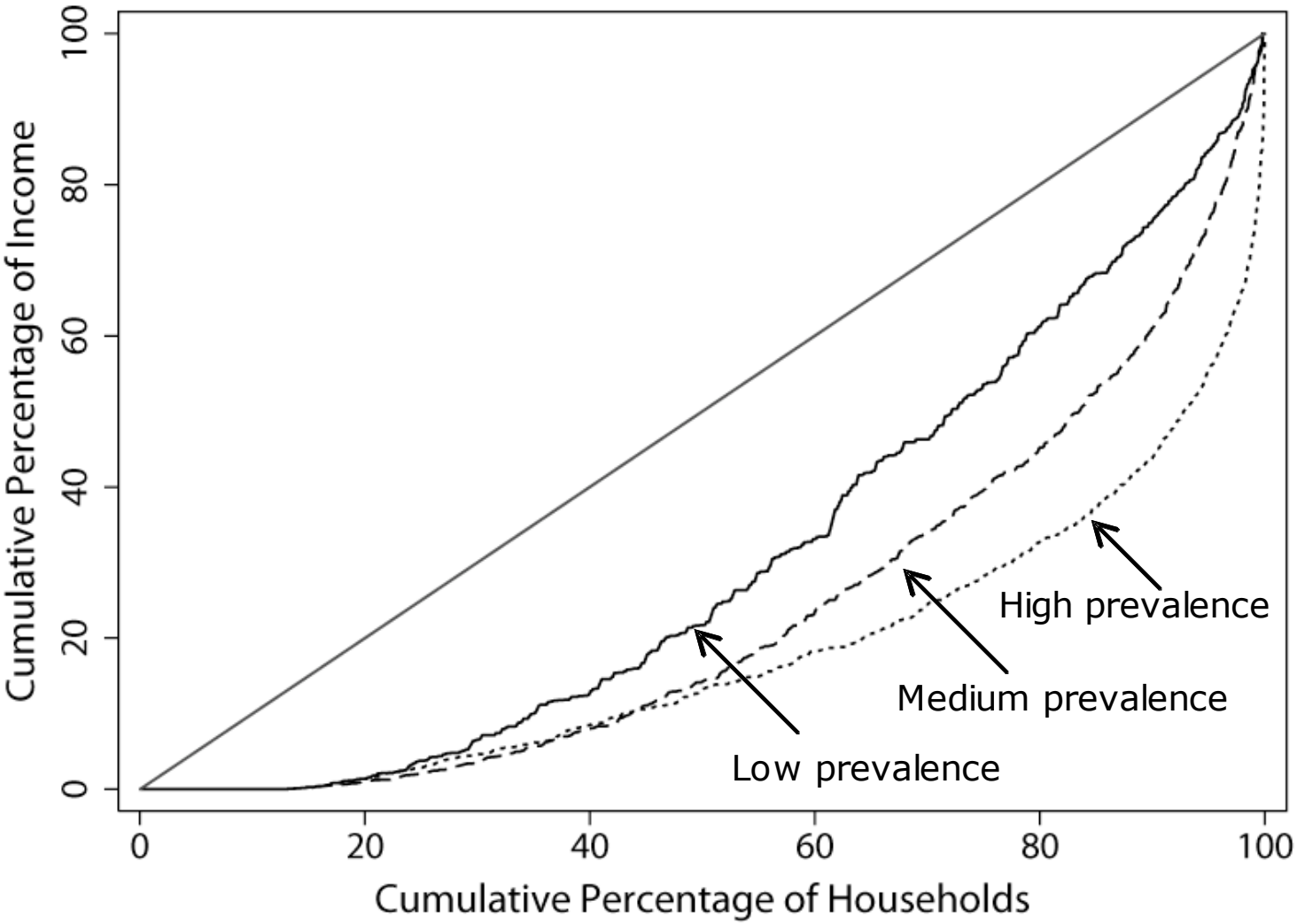
Mexican Migration Project Data

- Random sample of ~200 households in 119 communities (1982-2008)
- Migration histories of **household heads**
- Remittance information on the **last trip**
- N ~ 16,000 individuals, 3000 migrants

Migration and Inequality in Mexico



An Integrated Model of Migration and Remittances

y_{i1} is the amount remitted by individual *i*

$$y_{1i} = x_{1i}\beta_1 + \varepsilon_{1i}$$

y_{2i} is the binary migration decision of individual *i*, related to a latent variable y_{2i}^*

$$y_{2i}^* = x_{2i}\beta_2 + \varepsilon_{2i}$$

$$y_{2i} = \begin{cases} 1 & \text{if } y_{2i}^* > 0 \\ 0 & \text{if } y_{2i}^* \leq 0 \end{cases}$$

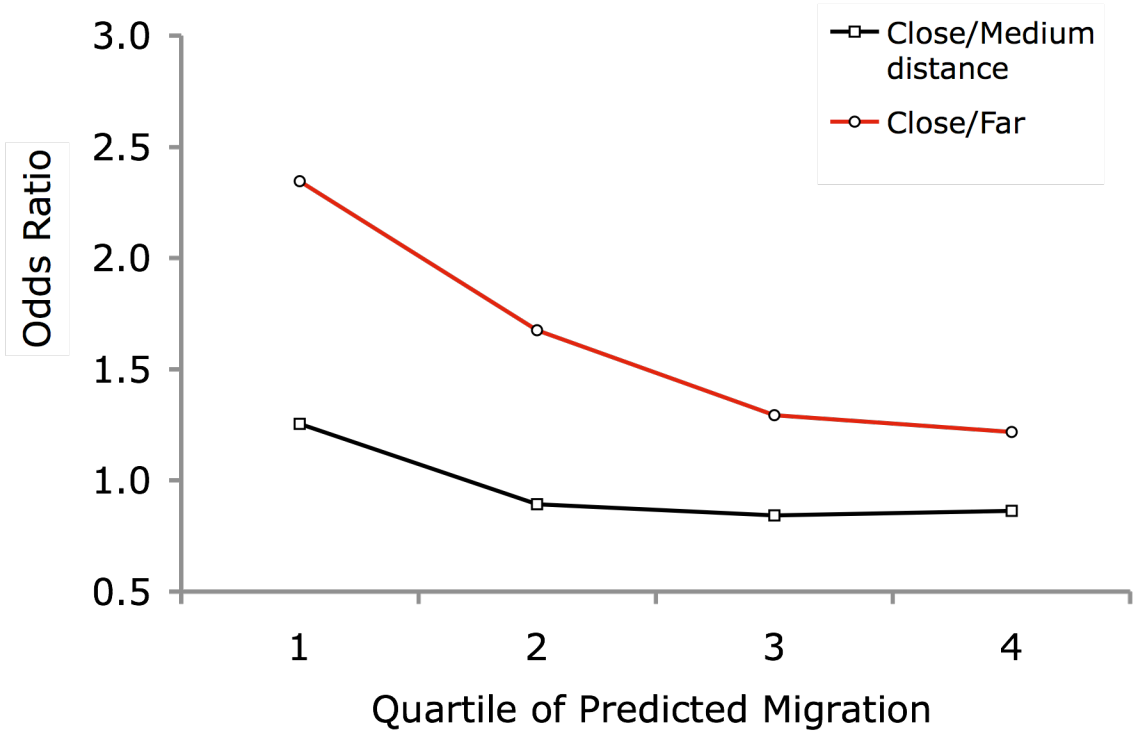
We observe remittances, y_{i1}, only if a person migrates $y_{2i} = 1$.

We can estimate these models separately only if the error terms are uncorrelated, that is, $corr(\varepsilon_{1i}, \varepsilon_{2i}) = \rho = 0$.

To estimate ρ, instead of assuming it is zero a priori, we can use **Heckman's two-step selection model**.

Geographic Variation as an Instrument for Selection

Does Distance Matter?



Note: Prediction equation does not contain distance indicators and is fit to a sub-sample of far villages to the border (>750km).

Does Distance Matter?

	Migration to the U.S.			
	(1)		(2)	
Live far from the border(>750km)	-0.003	**	-0.005	**
	(0.0004)		(0.0005)	
Proportion ever migrated	0.015	**	0.011	**
	(0.001)		(0.001)	
Live far from the border * Proportion ever migrated			0.015	**
			(0.002)	
N	366,309		366,309	
Pseudo - R^2	0.181		0.185	

**p<0.01, *p<.05. Standard errors are in parentheses.

Does Distance Matter?

	Migration to the U.S.		Wages in the U.S.		Migration in Mexico	
	(1)	(2)	(3)	(4)	(5)	(6)
Live far from the border(>750km)	-0.003 **	-0.005 **	0.085	0.071	-0.0001	-0.0004
	(0.0004)	(0.0005)	(0.049)	(0.063)	(0.001)	(0.001)
Proportion ever migrated	0.015 **	0.011 **	0.090	0.056	0.008 **	0.007 **
	(0.001)	(0.001)	(0.116)	(0.150)	(0.001)	(0.001)
Live far from the border * Proportion ever migrated		0.015 **		0.074		0.004
		(0.002)		(0.209)		(0.003)
N	366,309	366,309	3,059	3,059	366,309	366,309
Pseudo - R^2	0.181	0.185	0.198	0.198	0.048	0.048

**p<0.01, *p<.05. Standard errors are in parentheses.

Wealth, Migration & Remittances

Variable	Migration (1)	
Household wealth		
Logarithm of value of household land in 2000 US$	0.0011 (0.0003)	***
Logarithm of number of rooms in household properties	0.0007 (0.0003)	**
ρ		
N	366,309	
R^2	0.18	

***p<0.001, **p<0.01, *p<0.05. Standard errors are given in parentheses.

Why Do the Wealthy Migrate?

Variable	First Migration	Repeat Migration
	(1)	(2)
Household wealth		
Logarithm of value of household land in 2000 US$	0.0001	0.0011 **
	(0.0001)	(0.0004)
Logarithm of number of rooms in household properties	-0.0001 **	0.0013 **
	(0.0001)	(0.0004)
N	364,388	365,129
Pseudo-R^2	0.11	0.25

***p<0.001,**p<0.01, *p<0.05 (two-tailed tests).

Wealth, Migration & Remittances

Variable	Migration (1)		Remittances (2)		Remittances (3) Selection bias corrected	
Household wealth						
Logarithm of value of household land in 2000 US$	0.0011	***	0.05		0.07	*
	(0.0003)		(0.03)		(0.03)	
Logarithm of number of rooms in household properties	0.0007	**	0.13	**	0.13	***
	(0.0003)		(0.04)		(0.04)	
ρ					0.17	
					(0.05)	
N	366,309		3,101		366,309	
R^2	0.18		0.11			

***p<0.001, **p<0.01, *p<0.05. Standard errors are given in parentheses.

Theoretical Connections

Migrants originate from poor households.

Motive ~ Income Maximization

Remittances ~ Altruistic

Through repeated trips and cumulative remittances, migrants accumulate wealth.

Motive ~ Risk Diversification

Remittances ~ Contractual

Theoretical Connections

	Neoclassical Economics	New Economics of Labor Migration
Migrants are…	Low wealth	Medium/High wealth
Remittances are…	Altruistic	Contractual
Inequality is likely to…	Decline	Increase

First-time migrants

Repeat migrants

Theoretical Connections

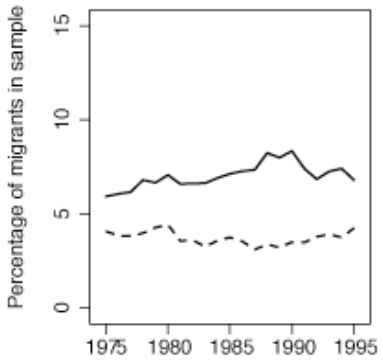
The link between household wealth and migration-remittance behavior varies over the different stages of an individual's migration careers.

We need to study migration-remittance behavior from **a life-course perspective**.

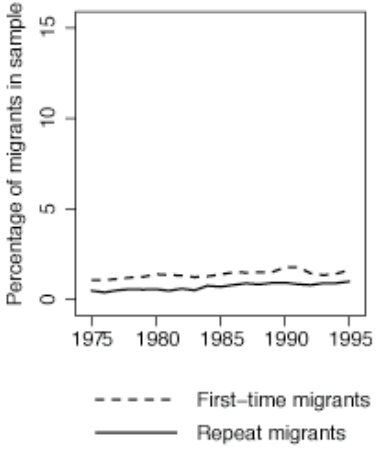
Implications for Inequality

(1) Migrant Composition

(a) High Migration Communities (N=60)



(b) Low Migration Communities (N=59)



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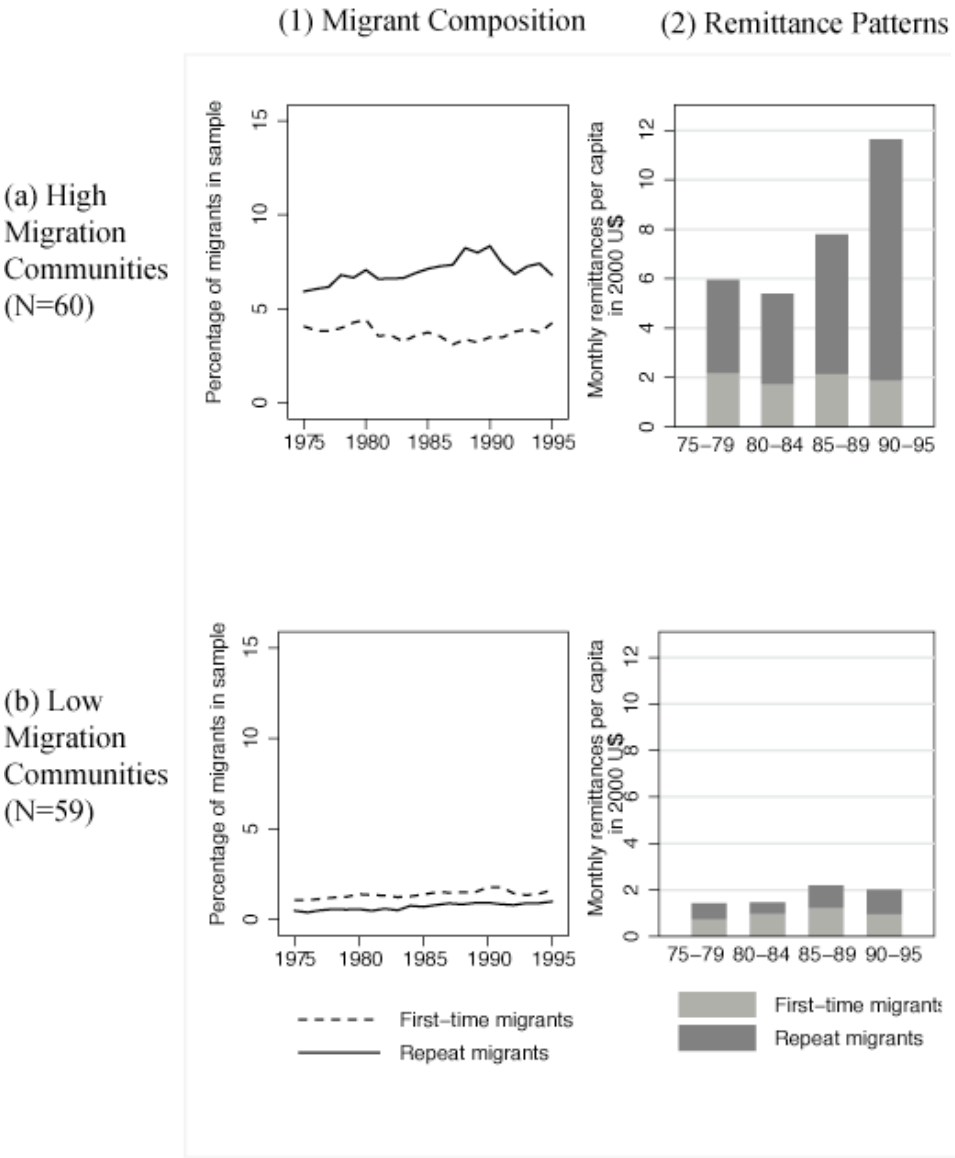

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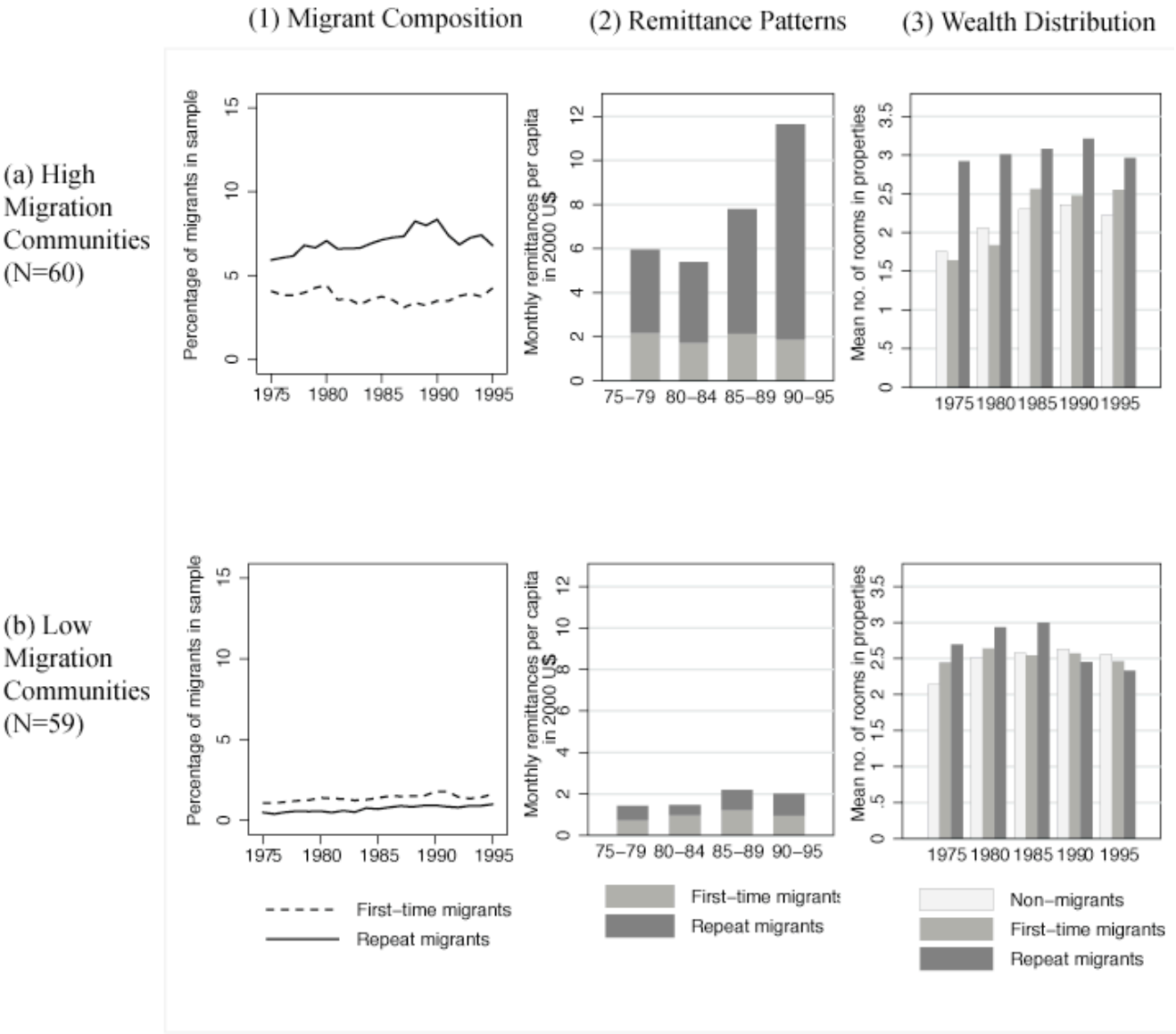

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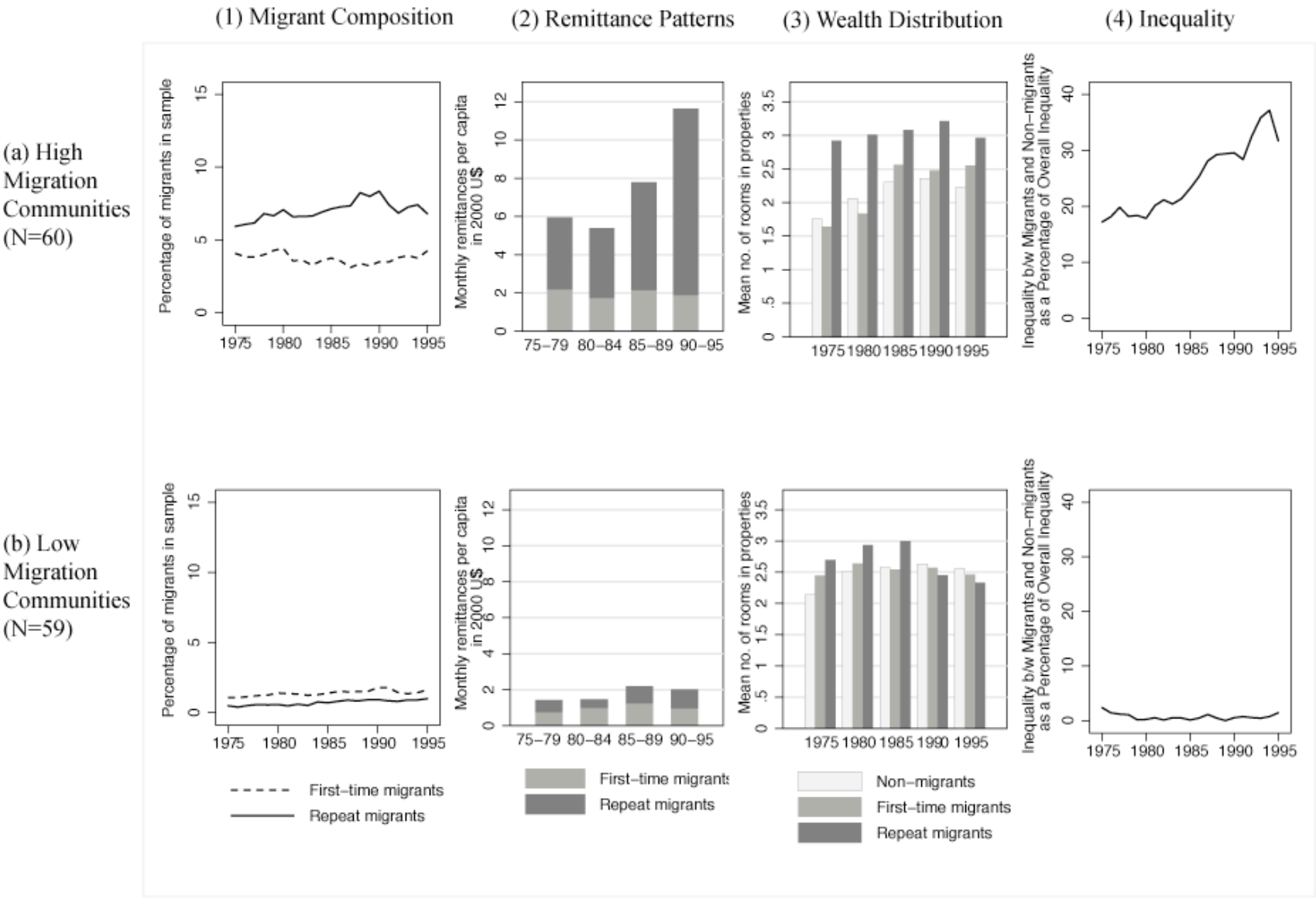

Implications for Inequality

Migration and remittance flows create a divide between households with and without migrants.

Inequality is higher in communities with higher migration prevalence.

The Kuznetsian prediction of first increasing, then declining, inequality with increasing migration **does not hold** in the Mexican case.

Contributions

The study considered the implications of remittance flows for inequality trends in sending communities.

The study proposed a theoretical framework and integrated statistical model for migration and remittances.

Empirical results suggested increasing income disparities due to migration-remittance flows in Mexico, matching the observed patterns.

The study provided an individual-level mechanism that may account for macro-level trends in income inequality.