

# Does Emigration Inhibit Reform? Evidence from the Mexican Agrarian Movement, 1910-1945

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# Migration and Reform: Introduction

Does emigration inhibit reform?

- Exit and voice: Hirschman (1970, 1978, 1993), Gehlbach (2006)
- Migration and stability: Fox (2007), Goodman and Hiskey (2008), Germano (2010), Ahmed (2013)
- Migration and democratization: Pfutze (2012), Spilimbergo (2009), Diaz-Cayeros et al. (2006)

# Overview

## Mexican Land Reform Program:

- Among the largest land reform programs in history: 1916-1980
- Began during a time of high emigration from Mexico

## Research Design:

- Subnational data on migration and land reform petitions
- Examine reform before and after the shock of the Great Depression

## Findings:

- Large and statistically significant acceleration in reform in high-migration states after the Depression
- Migration as “exit valve,” effect of repatriation

# Historical Background

## **Migration:**

- Mass migration to the US begins before 1900
- Major source areas: border and center-west regions
- Accelerates following Mexican Revolution

## **Land Reform:**

- Land reform a central motivation for Revolution
- Official agrarian reform program begins in 1916
- Incomplete implementation: elite manipulation, anti-agrarian violence, reform priorities
- Official plans to end reform in late 1920s

# The Great Depression and Cárdenas Rupture

## Great Depression:

- Emigration ceases and 350,000+ Mexicans repatriated by 1935
- 80% of repatriates return to their village of origin

## Aftermath:

- Upsurge in popular support and agitation for land reform
- Government reverses course and land reform accelerates during the 1930s

# Model: Migration Options Reduce Reform

- Citizens choose to work, migrate, or participate in the presence of uncertainty (global games model)
- Model suggests two channels through which migration reduces reform:
  1. Migrants are less likely to participate since they have a profitable outside option.
  2. The availability of exit options lowers everyone's estimation of participation, making cooperation riskier.

# Data Sources

## Land Reform:

- Sanderson Land Reform Dataset (1916-1976)
  - Yearly land reform petitions, beneficiaries, and land redistributed by state

## Migration:

- State-level migration measures:
  - Money order destinations 1926 (Gamio 1930)
  - Migration 1926-30 (Taylor 1934)

## Controls:

- FAO GAEZ potential agricultural productivity
- Mexican census data (1910, 1921, 1930)
  - Population, land area, land tenure

# Empirical Strategies

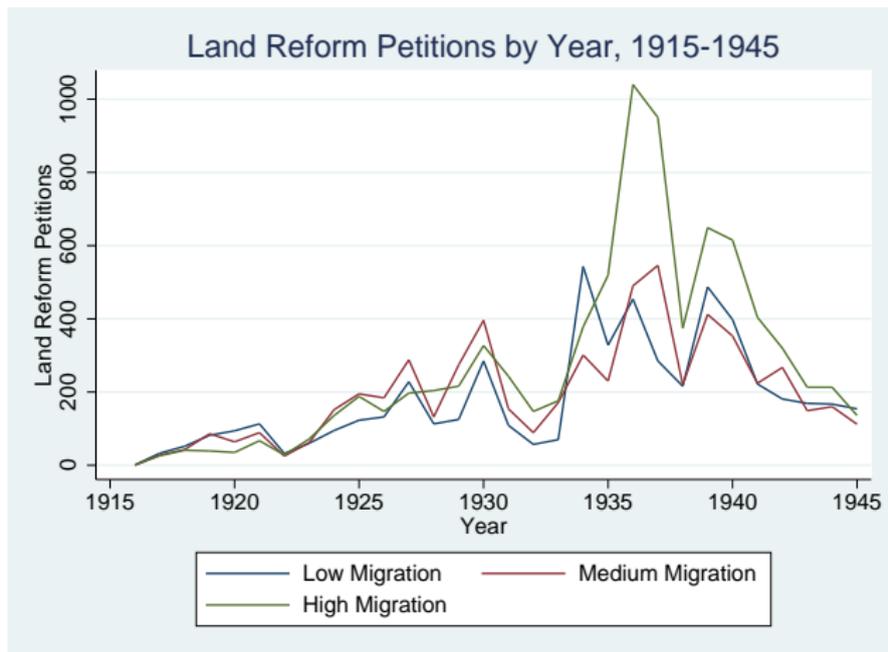
1. Pooled regressions using state and year fixed effects (Bhattacharya et al. 2013)

$$r_{iy} = \alpha + \sum_t \beta_t [(emigration_i \times year_{yt})] + \delta_i + \delta_y + \epsilon_{iy}$$

2. Pooled cross-sectional regressions on 1920s petitions and 1930s petitions:

$$r_{it} = \alpha + \beta_1 emig_i + \beta_2 1930s_t + \beta_3 [emig_i \times 1930s_t] + \mathbf{x}_{it} \boldsymbol{\gamma} + \epsilon_{it}$$

# Reform Petitions by Migration Level

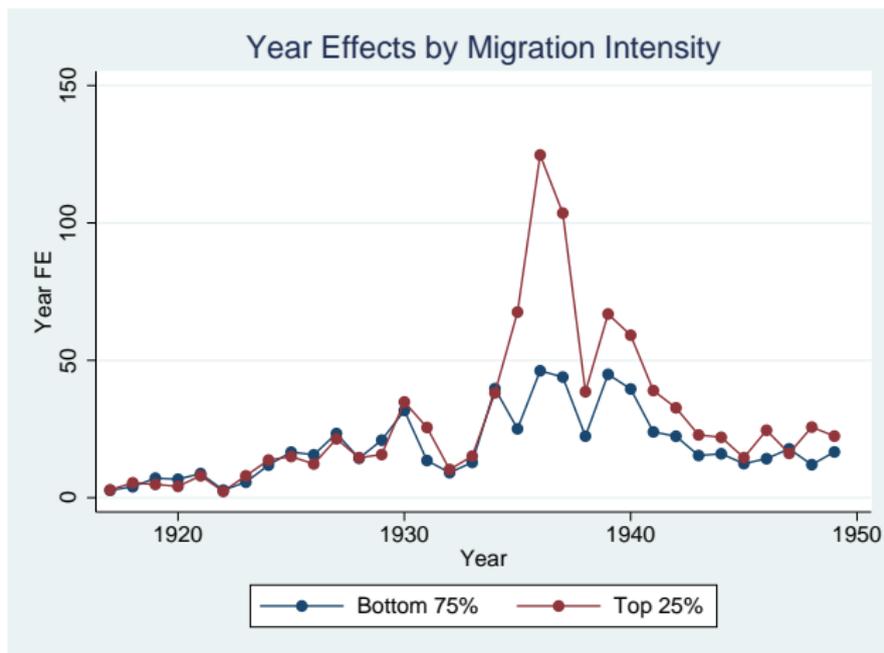


# Fixed-Effect Model: Petitions Pre- and Post-1930

<b>Dependent Variable:</b>	Petitions	Petitions	Petitions	Petitions
<b>Migration Measure:</b>	Money Orders	Emigrants	Highest Quartile	Money Orders
<b>Pre-Depression:</b>				
1927*Migration	0.11	-0.01	-3.09	0.49
1928*Migration	0.18	0.05	7.06	0.24
1929*Migration	0.08	-0.08	1.53	0.18
<b>Post-Depression:</b>				
1930*Migration	-0.00	-0.17	-1.06	0.27
1931*Migration	0.30	0.19	9.74	0.35
1932*Migration	0.04	0.04	2.77	0.06
1933*Migration	0.12	0.19	4.42	0.32
1934*Migration	0.35	-0.36	-1.70	0.79
1935*Migration	1.93***	0.99**	25.25**	2.45***
1936*Migration	4.06***	2.50***	58.35***	5.07***
1937*Migration	2.84***	2.61***	54.06***	2.85***
1938*Migration	0.86**	0.81*	16.13	0.76
1939*Migration	1.19***	0.85*	14.27	1.13**
1940*Migration	0.82**	1.35***	20.08*	1.19**
1941*Migration	0.44	0.41	14.13	0.47
1942*Migration	0.38	0.43	6.63	0.31
1943*Migration	0.16	0.10	-0.16	0.18
Groups:	31	31	31	29
Observations:	930	930	930	870
State FEs:	Yes	Yes	Yes	Yes
Year FEs:	Yes	Yes	Yes	Yes
Hacienda Interactions:	No	No	No	Yes
Agr. Interactions:	No	No	No	Yes

\* p<0.1; \*\* p< 0.05; \*\*\* p<0.01

# Year Effects on Petitions by Migration Quartile



# Pooled Models: 1920s and 1930s Petitions

<b>Dependent Variable:</b>	Petitions	Petitions	Beneficiaries
<b>Migration Measure:</b>	Money Orders	Emigrants	Money Orders
Migration	-4.83** (1.53)	-6.83*** (1.96)	-2.10 (1.78)
<b>Migration*1930s</b>	<b>15.67***</b> (2.60)	<b>13.03***</b> (4.49)	<b>8.49***</b> (2.22)
1930s	214.31*** (56.52)	224.51*** (59.84)	69.75* (42.07)
Log Density	138.50*** (37.01)	154.02*** (35.38)	108.52*** (25.31)
Log Area	171.74*** (40.58)	190.89*** (42.95)	129.95*** (24.74)
N	62	62	62
R <sup>2</sup>	0.67	0.64	0.60

\* p<0.1; \*\* p< 0.05; \*\*\* p<0.01

# Discussion and Conclusion

## **Does emigration reduce reform?**

- Migration as a substitute for reform during the 1920s
- Role of repatriates in Mexican politics after the Depression

## **Implications for future work:**

- Migration reduces reform in short-run, but Mexico does not control the escape valve
- Distributional effects of migration: availability of reform to migrants and non-migrants
- Implications for Great Recession and current repatriation

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