

# **Policy Reforms and the Supply of Mexican Labor to U.S. Farms**

J. Edward Taylor

University of California, Davis



# How did IRCA and NAFTA Affect the Supply of Mexican Workers to U.S. Farms?

- Mexico-born made up 77 percent of the U.S. farm workforce in 1997-98
  - Up from 57 percent in 1990; U.S. Department of Labor, 2000 and 1991.
- Most of these workers (52 percent) were unauthorized.
- An overwhelming majority came from households in rural Mexico (U.S. Commission on Immigration Reform, 1997).

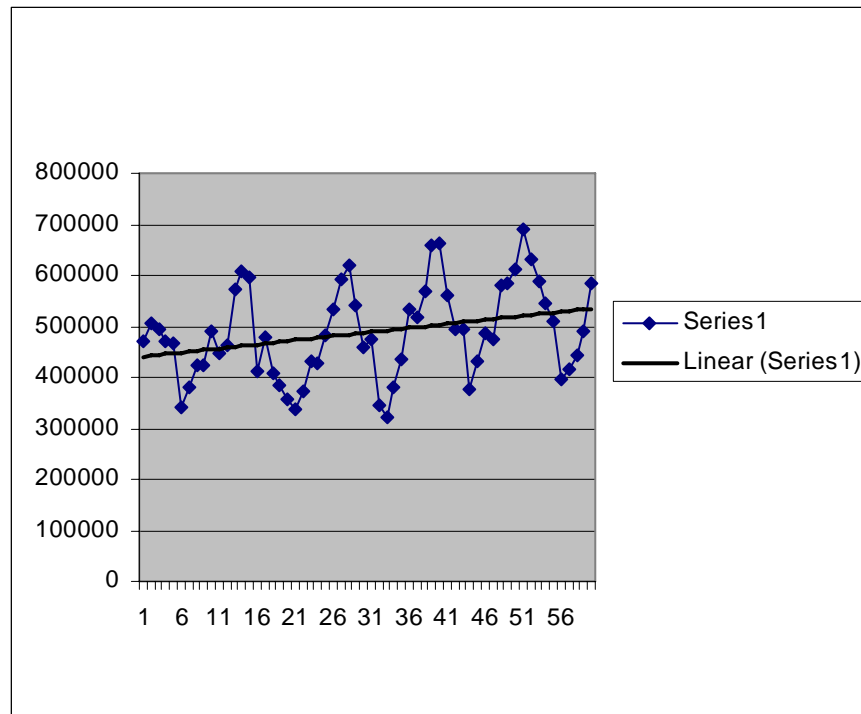
# U.S. and Mexican Policy Reforms

<b>POLICY</b>	<b>DESCRIPTION</b>	<b>YEARS</b>
<b>US Immigration Reform and Control Act (IRCA)</b>	Employer Sanctions, General Amnesty, Special Agricultural Worker (SAW) Program	1986
<b>North American Free Trade Agreement (NAFTA) two separate agricultural agreements: Mexico-Canada and Mexico-US</b>	Defines which are the obligatory conditions for market access and for export subsidies.  Capstone of radical change in Mexico's development policies	1994
<b>PROCAMPO (Program of Direct Support for the Countryside), part of ASERCA (see below)</b>	Direct payments to the producers of basic crops that compensate producers for the loss of input subsidies, price supports and import protection.	Winter 1993-1994
<b>Reform of the Agrarian Law</b>	Recognizes the individual rights of each ejido (reform-sector lands)	1992

# U.S. and Mexican Policy Reforms

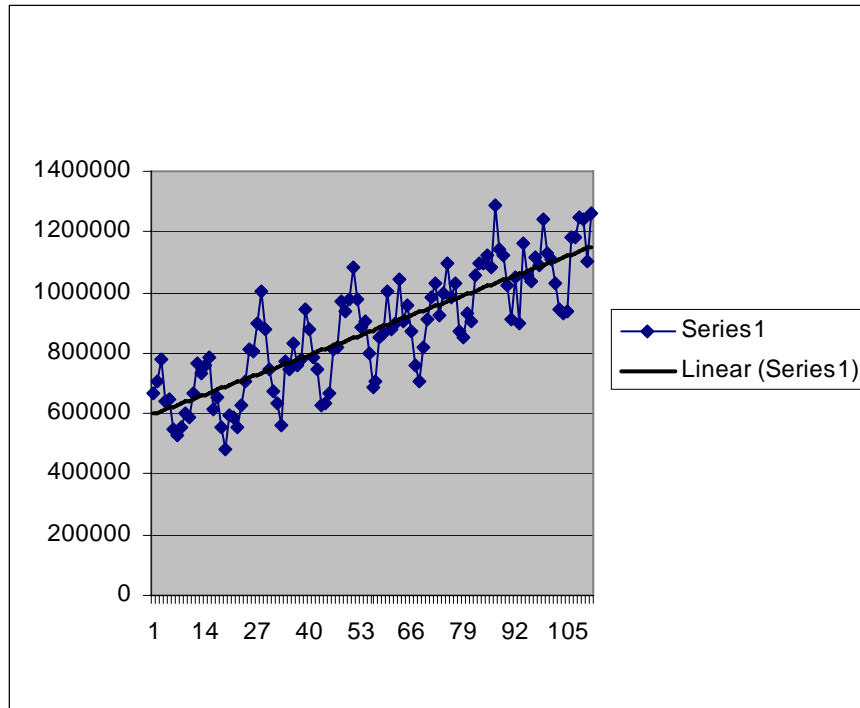
<b>North American Free Trade Agreement (NAFTA) two separate agricultural agreements: Mexico-Canada and Mexico-US</b>	Defines which are the obligatory conditions for market access and for export subsidies.	1994
	Each country has the right to choose its own internal subsidies, phytosanitary measures, rules of origin and regulations for packing and tagging products.	
	Consistency with the World Trade Organization and with the Uruguay Round.	
	Import and export licenses are abolished and substituted by tariffication.	
	In Jan. 2008 all tariffs will be eliminated by NAFTA members.	
<b>PROCAMPO (Program of Direct Support for the Countryside), part of ASERCA (see below)</b>	Direct payments to the producers of basic crops that compensate producers for the loss of input subsidies, price supports and import protection.	Winter 1993-1994
	Grants annual direct payments per hectare to those producers who continue to produce, based on historical acreage for nine crops.	
<b>Elimination of producer price supports, abolition of CONASUPO</b>	In 1991 guaranteed prices for wheat, sorghum, soy beans, rice, barley, safflower, sesame seed and sunflower were eliminated, and in 1999 support prices for beans and corn producers were abolished.	1991-1999

# Total Volume of Mexico-U.S. Agricultural Trade Pre-NAFTA



Source: United States International Trade Commission (USITC), Interactive Trade Database. Available at: [http://dataweb.usitc.gov/scripts/user\\_set.asp](http://dataweb.usitc.gov/scripts/user_set.asp)

# Total Volume of Mexico-U.S. Agricultural Trade Post-NAFTA



Source: United States International Trade Commission (USITC), Interactive Trade Database. Available at: [http://dataweb.usitc.gov/scripts/user\\_set.asp](http://dataweb.usitc.gov/scripts/user_set.asp)

# Thought Experiment: How Do We Test for a Policy Effect on Farm Labor Migration?

- What can predict next year's share of rural Mexican's working on U.S. farms?
  - Last year's share
  - Look at the trend: is it increasing or decreasing over time? By how much?

# Can We Do Better? Hopefully, with a Little Theory, the Answer is “Yes”

- Were there big macroeconomic changes that could affect the costs and benefits of migrating? If so, how?
  - Peso devaluations, income growth or recessions in Mexico or the U.S.?
  - Increased U.S. border enforcement?
- If so, these belong in our model

# Now Bring In the Policy Shock

- Given:
  - The share of your village's workforce on U.S. farms
  - The trend
  - Macroeconomic variables and border enforcement
- Did the trend shift up or down after IRCA (1986), and after NAFTA (1994)?

# Where Do You Get the Data?

- Go where the migration is coming from:  
Rural Mexico
- Problem: No historical data exist; only border apprehensions and scattered village surveys
- Solution: Do your own big survey

# Mexico National Rural Household Survey of 2003 (ENHRUM<sup>a</sup>)

- UC Davis and El Colegio de Mexico
- 14 Mexican universities, 100 university students
- Sample designed with INEGI
- 2 visits: Community (Summer 2002) and Household (January-February 2003) Surveys
- 1760 households, 80 villages

<sup>a</sup> Encuesta Nacional a Hogares Rurales de Mexico

# Comparison with Other Data Sets

- Detailed economic data, production, income, expenditures (unlike national data sources)
- Nationally and regionally representative (unlike MMP and village surveys)
- All rural households (unlike Ejido Survey)
- Household as well as village (context) variables

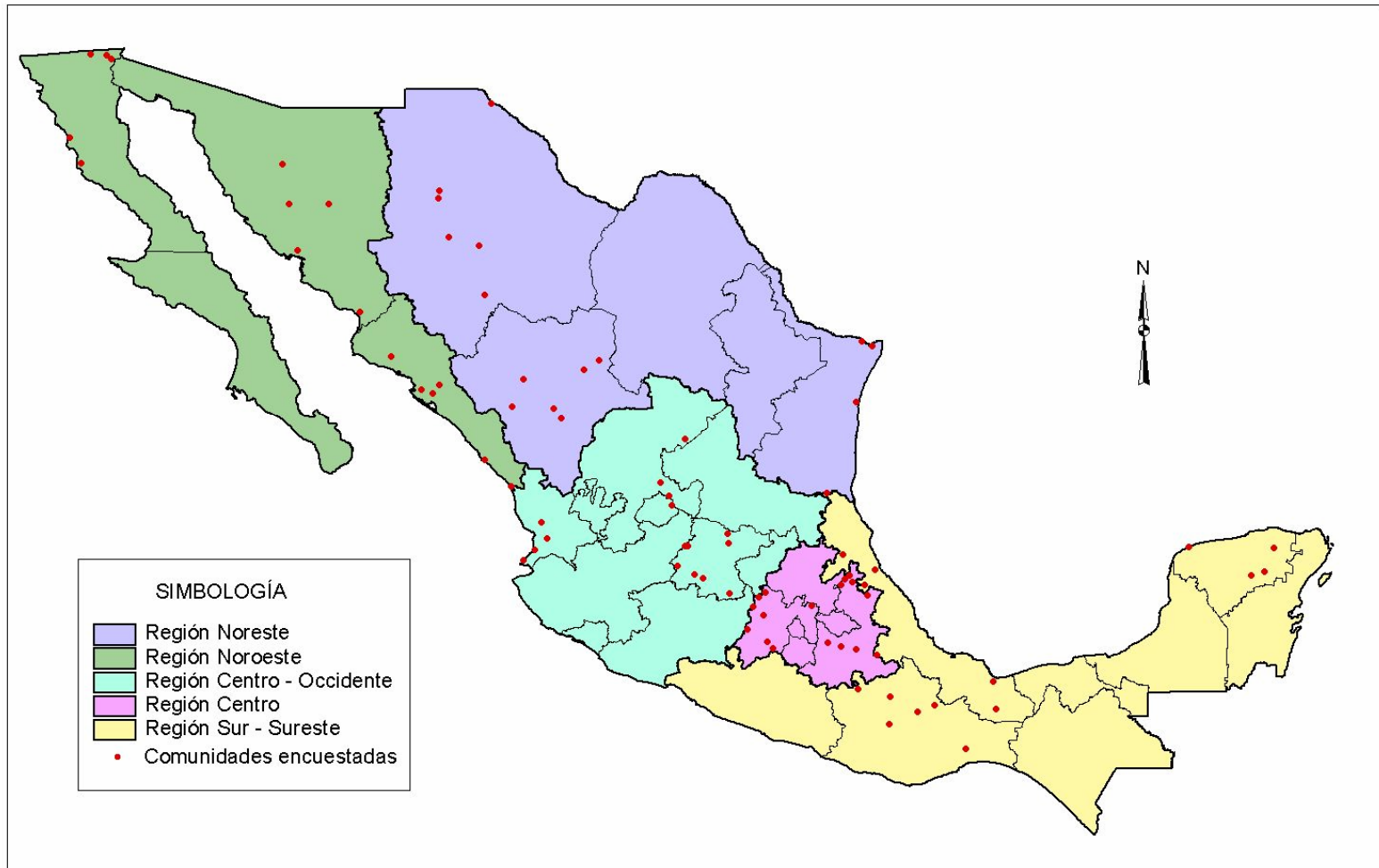
# Migration Data from the ENHRUM

- Migration, wage, and remittance data for all family members in 2002
- Migration and work histories covering 1980-2002 for:
  - All household members
  - A random sample of children living outside the household in 2002 (generally 2 per household)



# Figure 1. Regional Distribution of Mexico National Rural Household Survey of 2003

ENCUESTA NACIONAL A HOGARES RURALES DE MÉXICO (ENHRUM), 2003  
REGIONES Y DISTRIBUCIÓN GEOGRÁFICA DE COMUNIDADES ENCUESTADAS



Fuente: Elaborado en el Laboratorio de Análisis Espacial, Coordinación de Servicios de Cómputo, El Colegio de México con base en datos de la ENHRUM, 2003.

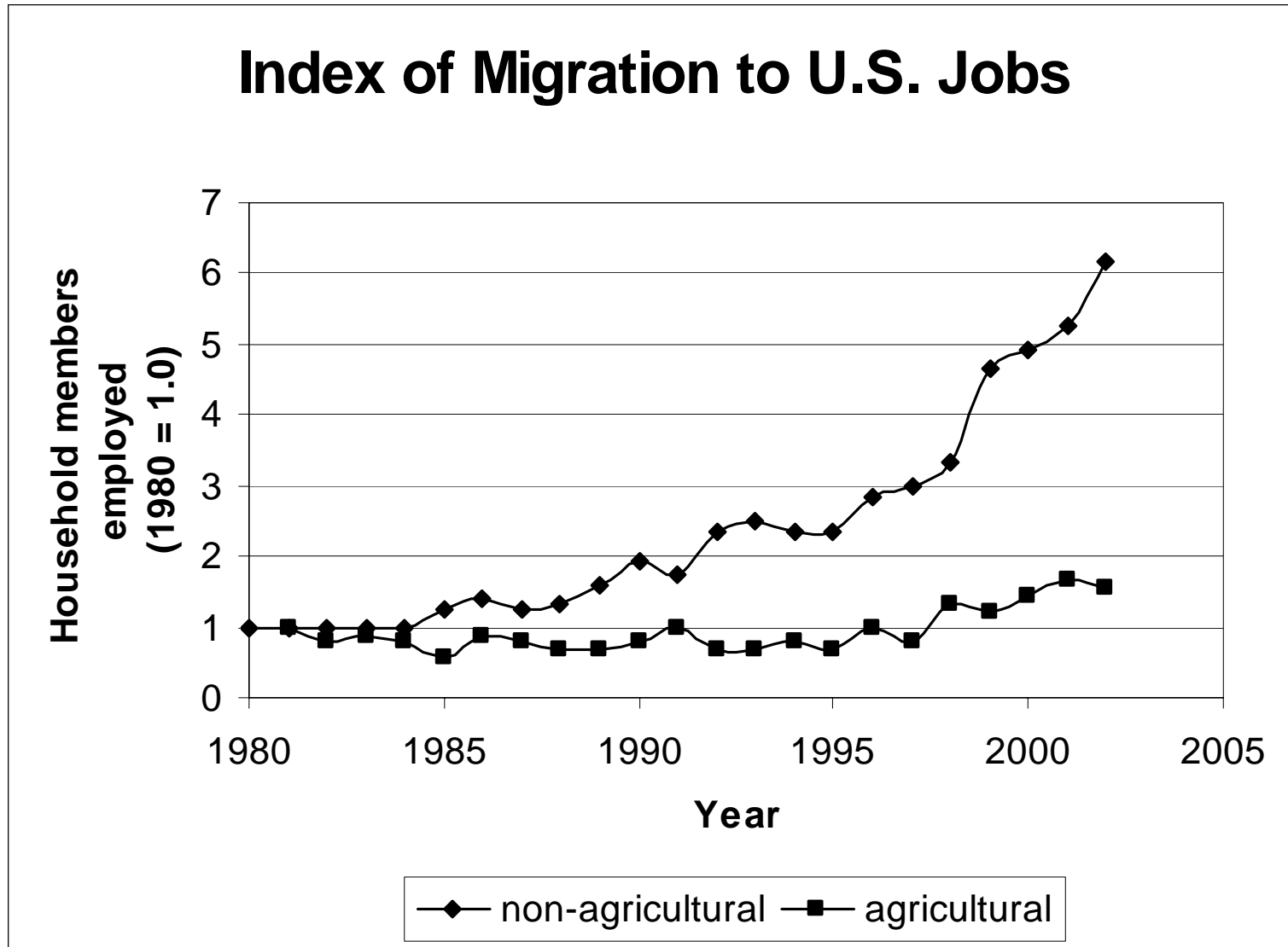
# West-Central Region (Prototype)

- Traditionally the largest sender of migrants to the U.S.
- Focus of the Bracero Program prior to 1964
- ...also of most past village migration surveys (e.g., Mexico Migration Project)
- ENHRUM gives first representative data





# Migration to U.S. Farm and Nonfarm Jobs Increased



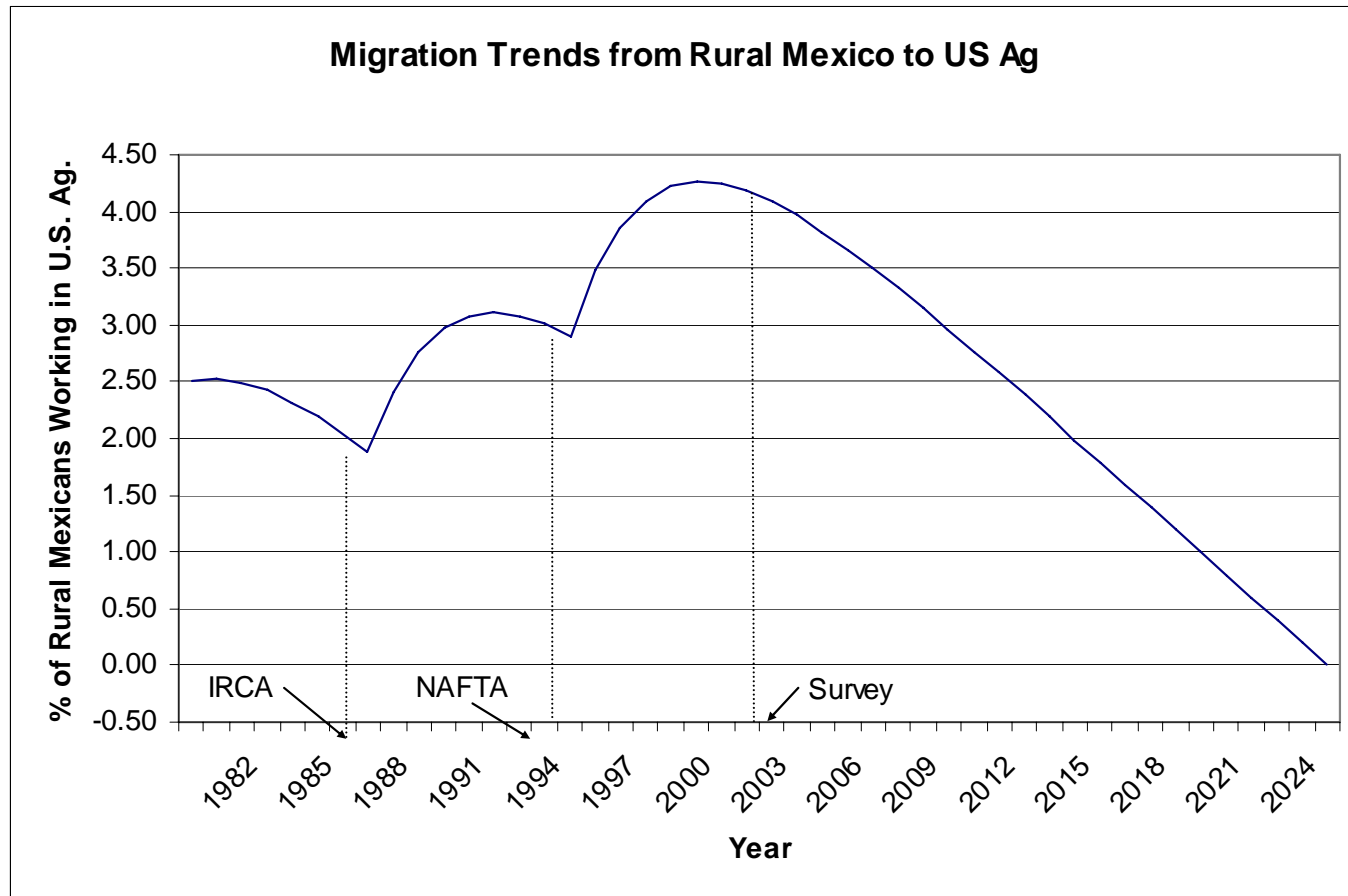
# ...So Did Internal Migration from Rural Mexico (but not to farm jobs)



# Econometric Analysis

- Figure shows gradual positive trend in supply of labor to U.S. farms
- How did NAFTA and IRCA affect this trend?
- ...controlling for other variables, e.g., increased U.S. border enforcement, incomes, and peso devaluations?

# Trend in US Farm Labor Supply from Rural Mexico is Downward, but Effects of Policies are Positive



Source: Analysis of 2003 Mexico National Rural Household Survey data

# What Do We Learn from This?

- Findings suggest that IRCA and NAFTA may have increased the supply of labor to U.S. farms
  - At least, make it hard to contend negative
- Why positive?

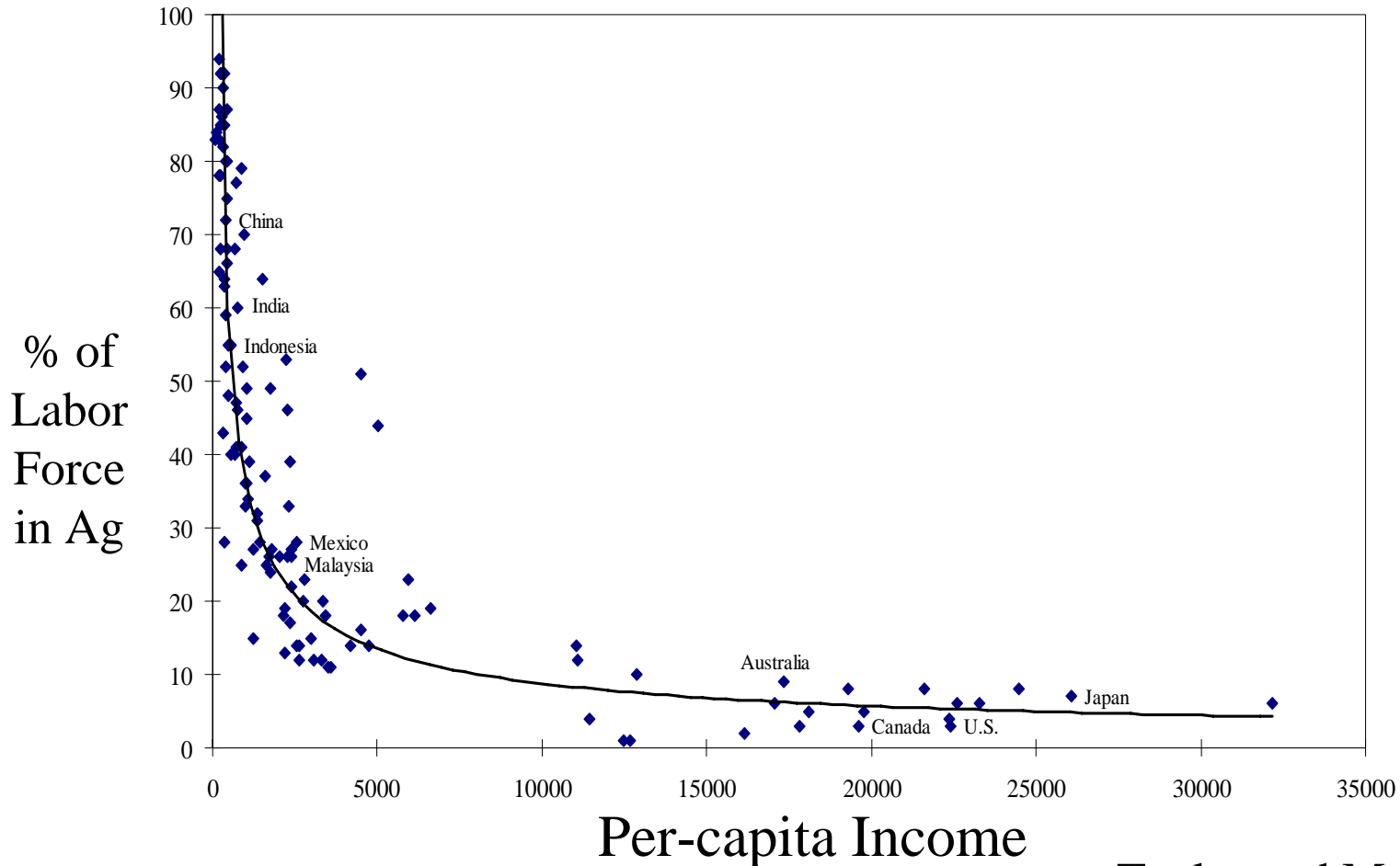
# Effects of both IRCA and NAFTA on Migration are Ambiguous

- IRCA:
  - Employer Sanctions (-)
  - SAW Legalization, Amnesty (+)
- NAFTA:
  - Facilitates international capital flows (+?)
  - Facilitates trade in goods (?)
  - Forces dislocations/adjustments by factors in protected sectors (+)
  - Low-skilled rural workers hard pressed to make transition to dynamic sectors (+)
  - US farm jobs offer alternative (+)

# The Balance in the Short Run

- Policy changes may have accelerated the movement of population out of rural Mexico

# The Long Run: Mexico Still Has “Too Many” People in Agriculture



Taylor and Martin, 2000

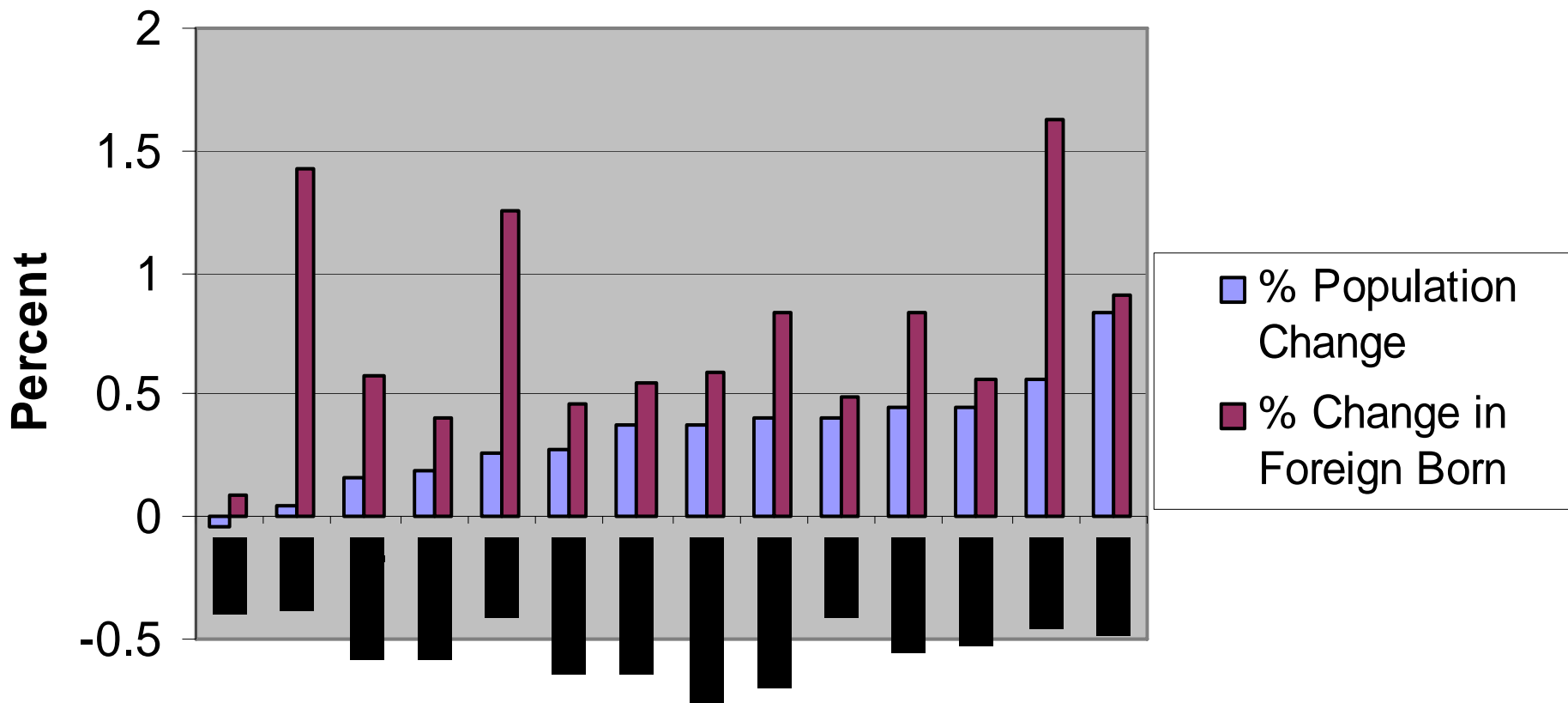
# Where Will They Go?

- Increasingly to the United States—but not to U.S. farm jobs
- Farmers have growing competition from 2 sides:
  - Competing destinations for Mexico's migrants
  - Competing sectors in the Central Valley (e.g., construction)

# Implications for Rural America

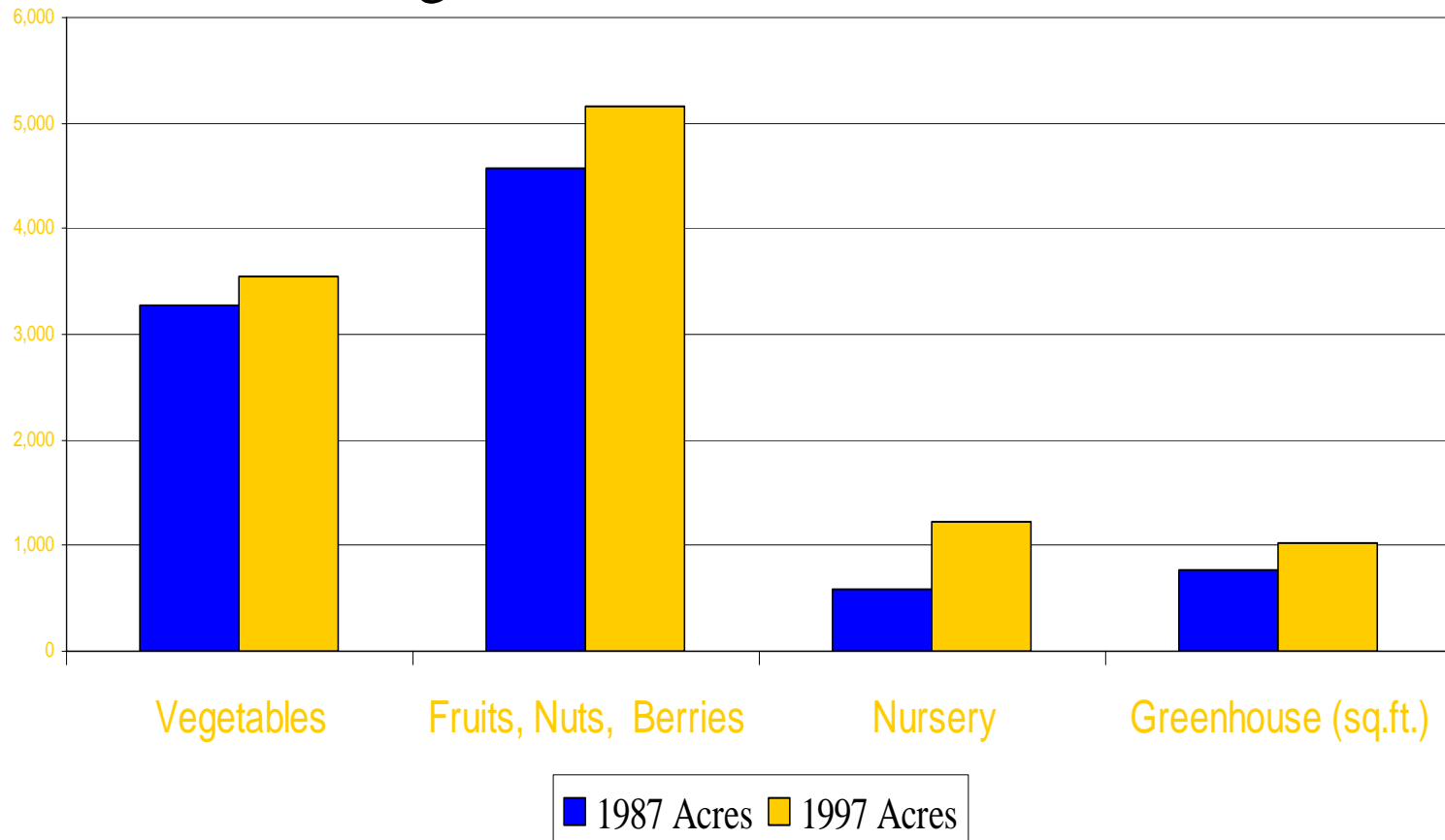
# Populations of Rural Towns Are Being Transformed By Immigration of Low Skill Workers

## % Change in Total and Foreign-Born Population, 1990-2000



# ...to Fuel the Growth of Labor-Intensive Fruit, Vegetable, and Horticultural Production

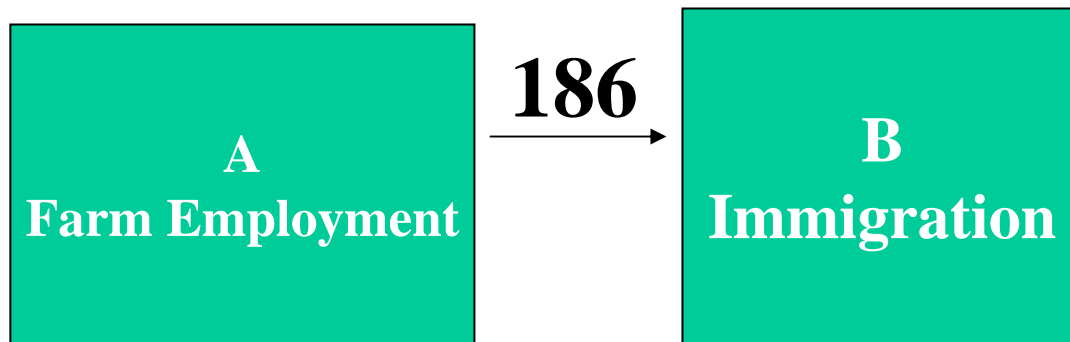
US FVH Acreage, 1987 and 1997



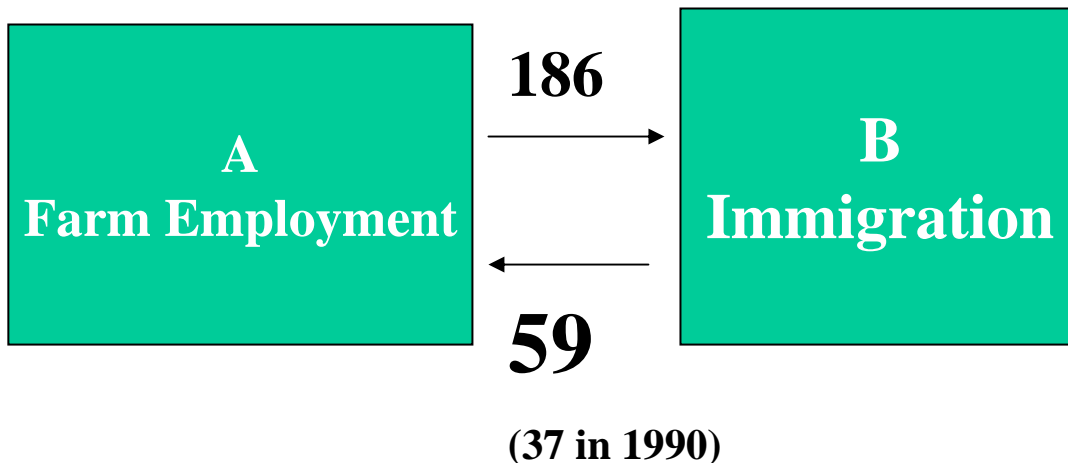
But Poverty Rates in Prosperous  
Agricultural Areas Are Among  
the Highest in the United States

# In 2000, an Additional 100 Farm Jobs Were Associated with a Larger Increase in Immigration than in 1990

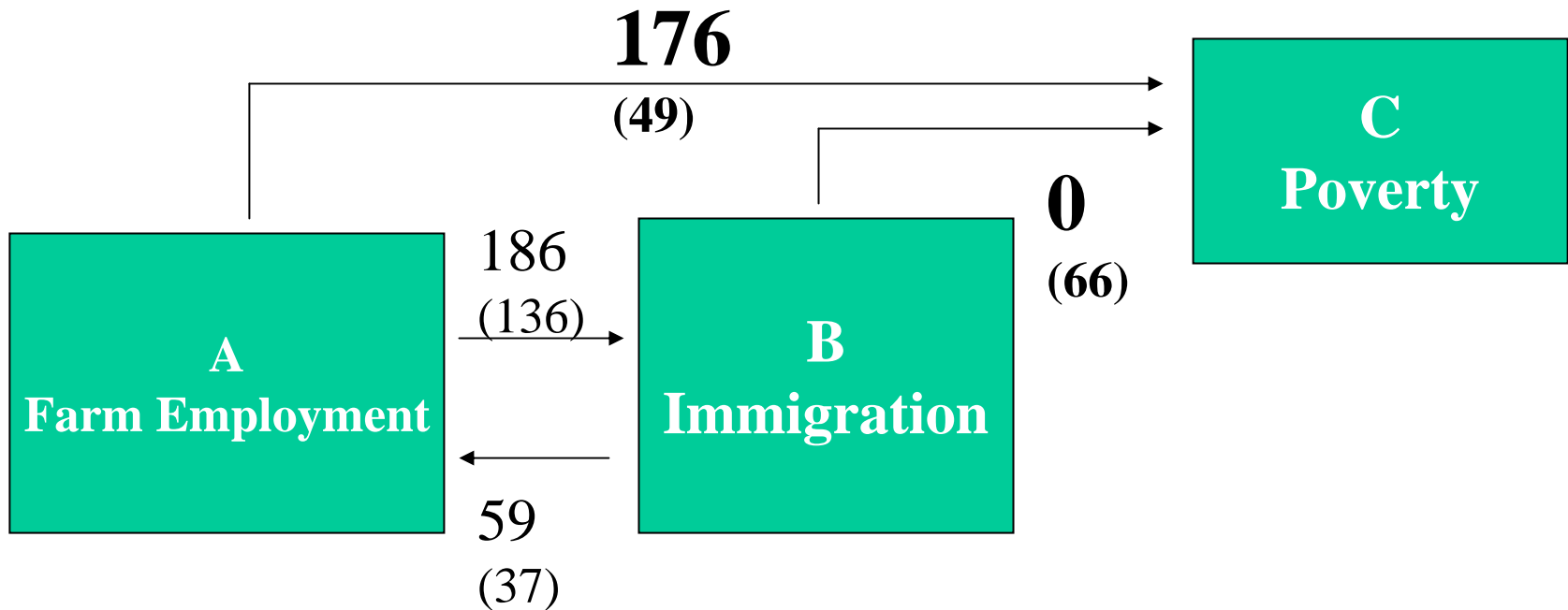
Estimated Impact of an Additional 100 Farm Jobs (136 in 1990)



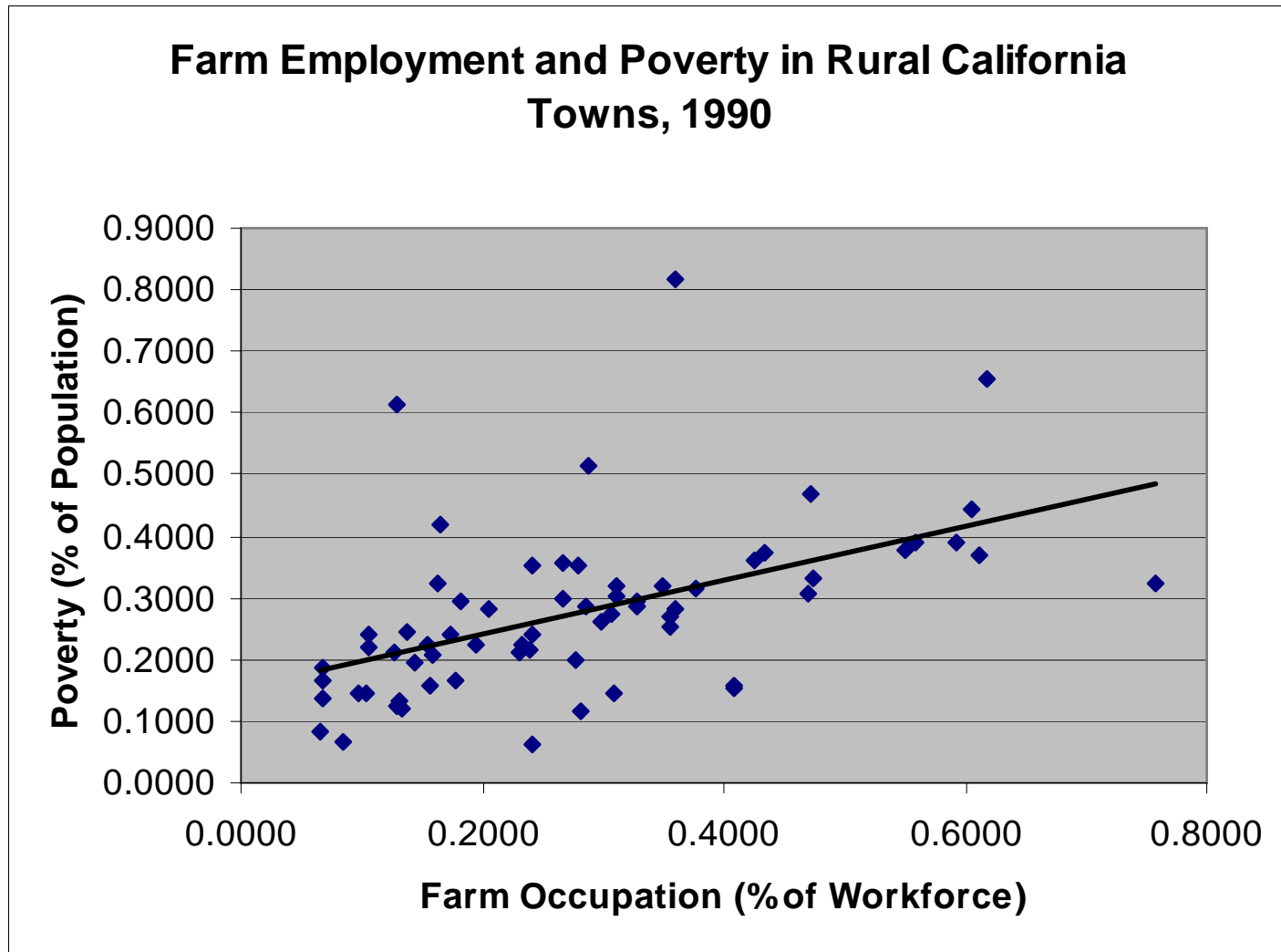
# The Feedback of Immigration on Farm Employment Was Also Larger



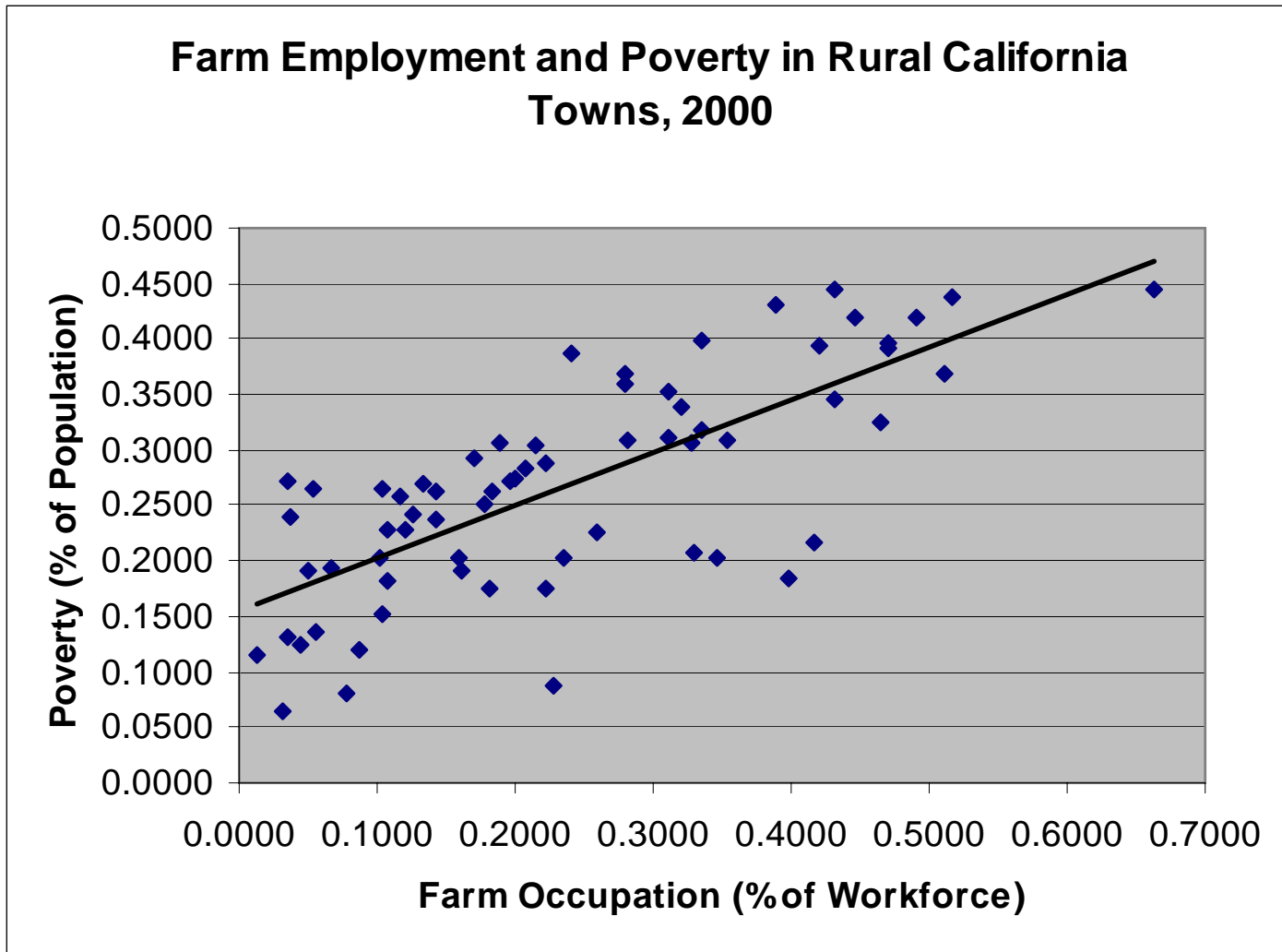
# ...Leading to Even More People in Poverty



# In 1990, Farm Employment Was Positively Associated with Poverty in Rural California Towns

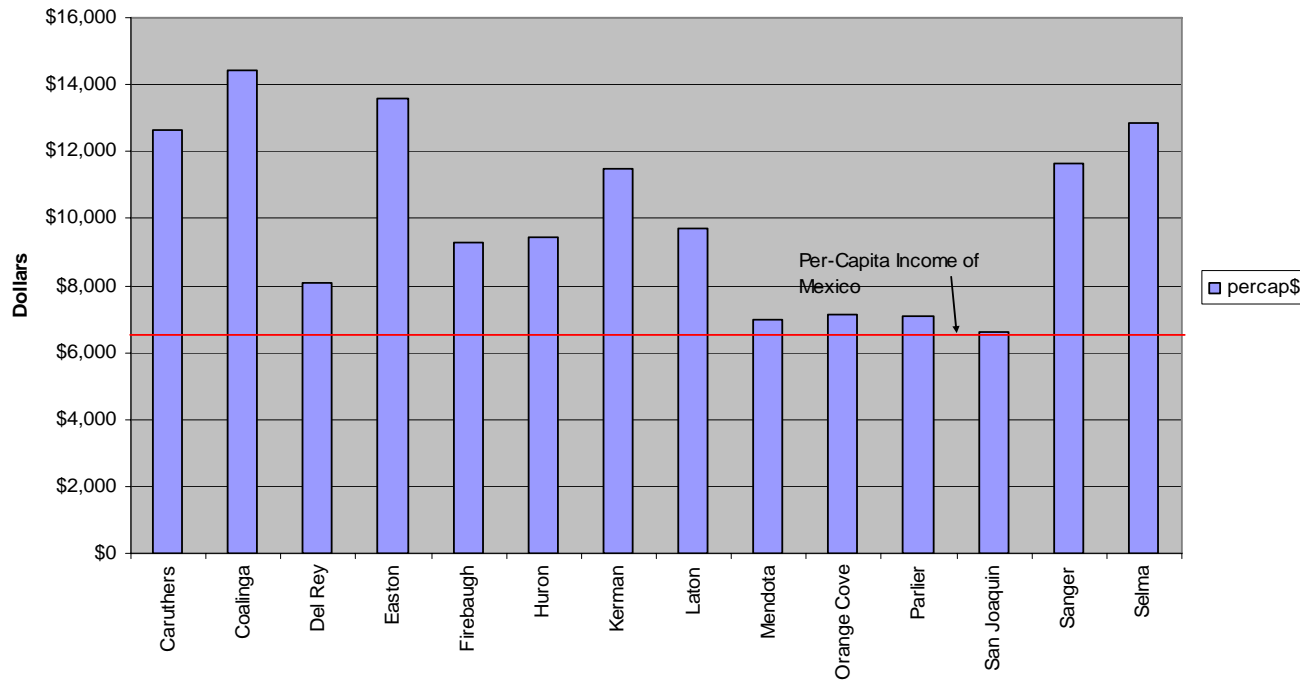


# In 2000, this Association Was Stronger



# Per-Capita Income in Some Fresno Towns Similar to Mexico

## Average Per-Capita Incomes, 2000



# Big Question: What Will Farmers (and Policy Makers) Do About It?

- Supply Side Responses:
  - Seek new sources of low-wage farm labor
  - Enact new policies to tap remaining farm labor in rural Mexico
- Demand-Side:
  - Switch to less labor-intensive crops and technologies