

Farm Labor Scarcity

Why It Is Happening and What It Means for California Farmers

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Rural Mexico's Farm Labor Supply

- Rural Mexico is the primary source of hired labor for U.S. farms
- Throughout the 20th century, rural Mexico has provided an elastic supply of farm labor to the U.S.
 - Enabled labor-intensive fruit, vegetable, and horticultural (FVH) production to expand (Martin, 2003)
 - Discouraged labor-saving technological change
 - Created challenges to farm labor organizing

Great Wall of Trump



Great Wall of Trump



Guest
Workers
Enter Here



Great Wall of Trump



Guest
Workers
Enter Here

Great Wall of Trump



Guest
Workers
Enter Here



Will the Farm Workers Be There?

- Is the farm labor supply from rural Mexico elastic like it always has been?
- Or is it becoming less elastic?
- Are we reaching the end of farm labor abundance?
- There's no wall between California and Nevada, but that doesn't help CA farmers

Is Something Happening Out There?

Farmers across California are experiencing the same problem: Seasonal workers who have been coming for decades to help with the harvest, planting and pruning have dropped off in recent years.

The workforce has been decreasing in the last two to three years, but last year it was drastic.

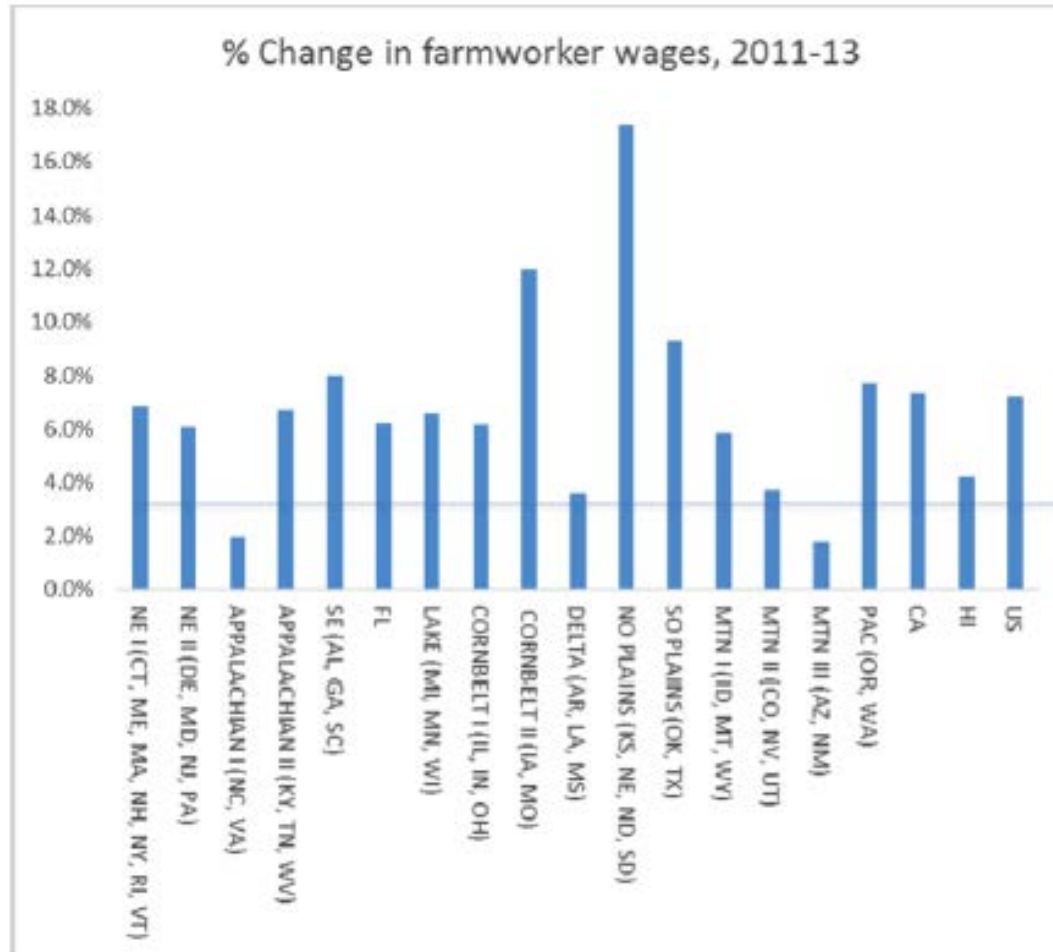


SF Chronicle, May 27, 2012

Kristi Boswell, Farm Bureau, 2012

Pre-Trump, post recession

Rising U.S. Farm Wages



CPI Change:
3.45%

...And things are changing in Mexico too

Farm Workers are Demanding Higher Wages in Mexico

Baja farm workers push for more pay: San Quintin farm workers launch bus caravan as they seek higher wages, benefits

-Sandra Dibble, UTSanDiego, March 28, 2015



(Misael Virgen/ UT San Diego)

Pickers back at work in Baja California, but animosity remains

-Richard Marosi, LATimes, March 30, 2015



Farmworkers harvest strawberries last week in Baja California. A strike is winding down Monday after nearly two weeks.

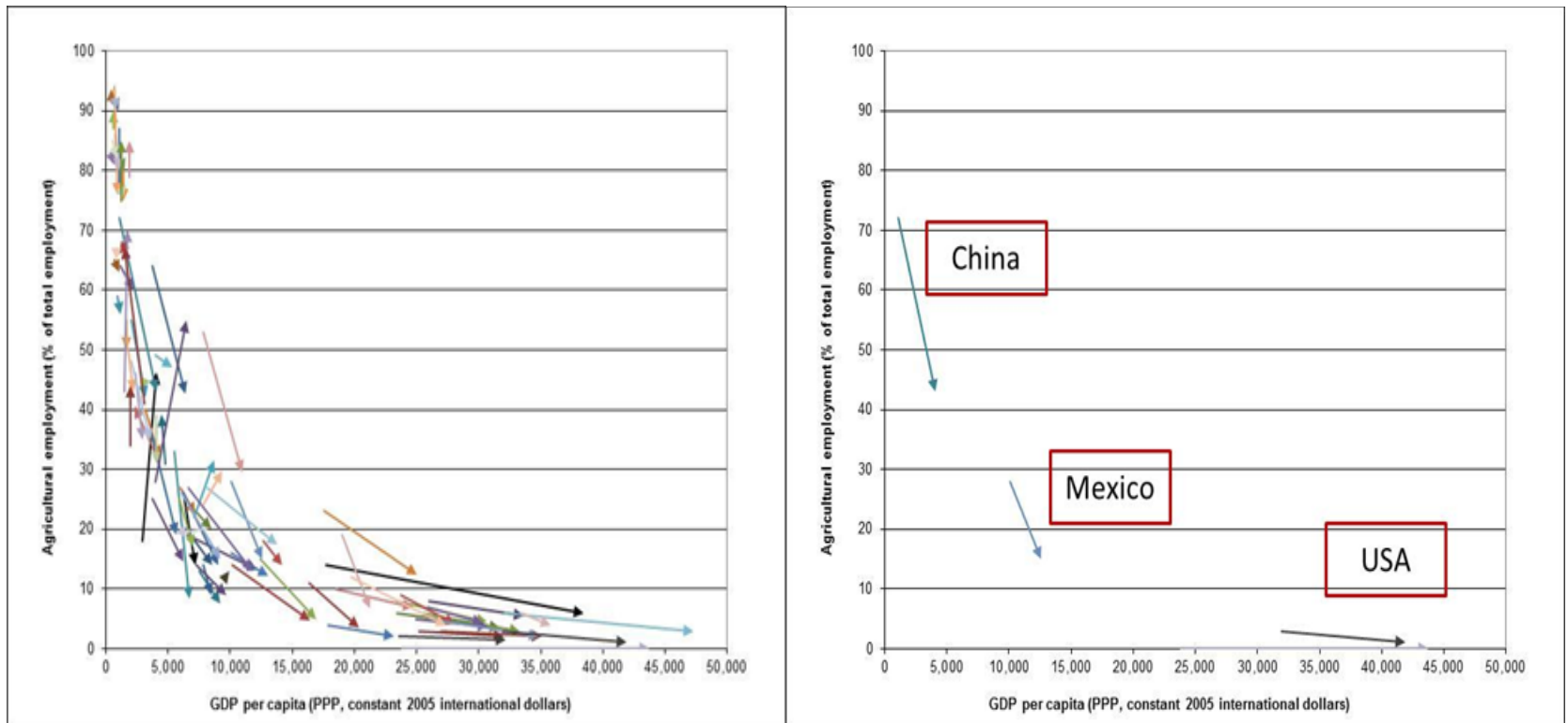
(Don Bartletti / Los Angeles Times)

Regional Farm Labor Markets in Transition

- Mexico is the major supplier of hired labor to U.S. farms
 - Only 2% of California's hired farm workers are U.S.-born
- Guatemala has become a supplier of farm labor to Mexico
- Mexico is in the transitional phase of being both a farm labor exporter and importer

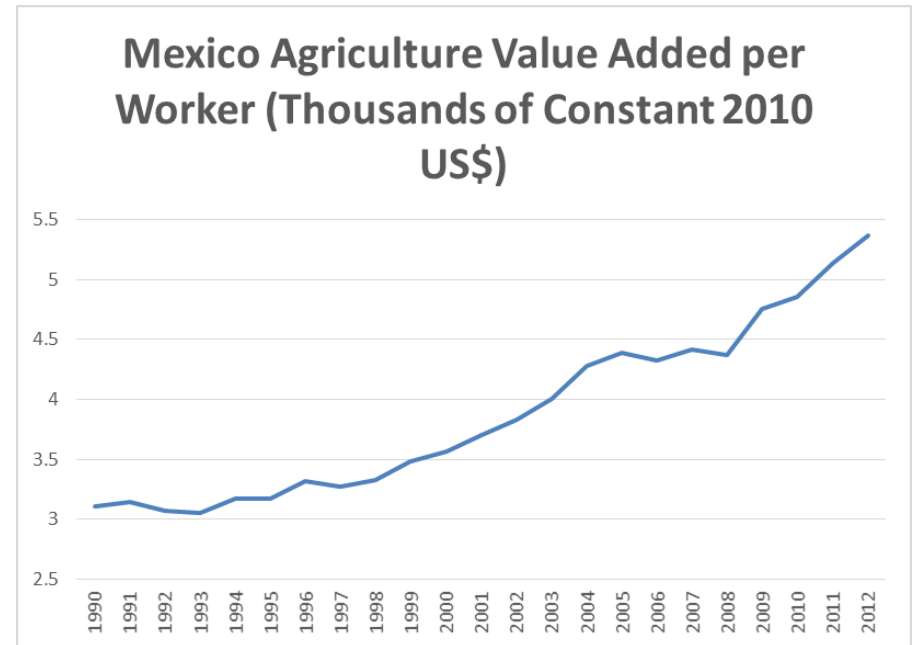
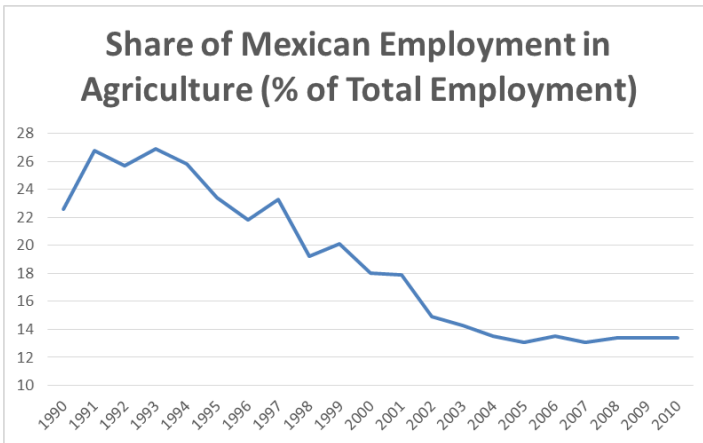
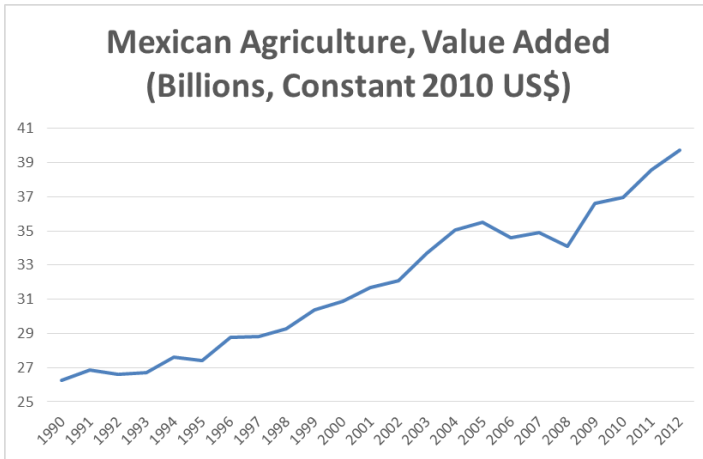
Fleeing the Farm

Income Growth and Ag Labor Shares



Source: Taylor and Lybbert, *RebelText: Essentials of Development Economics*, 2012

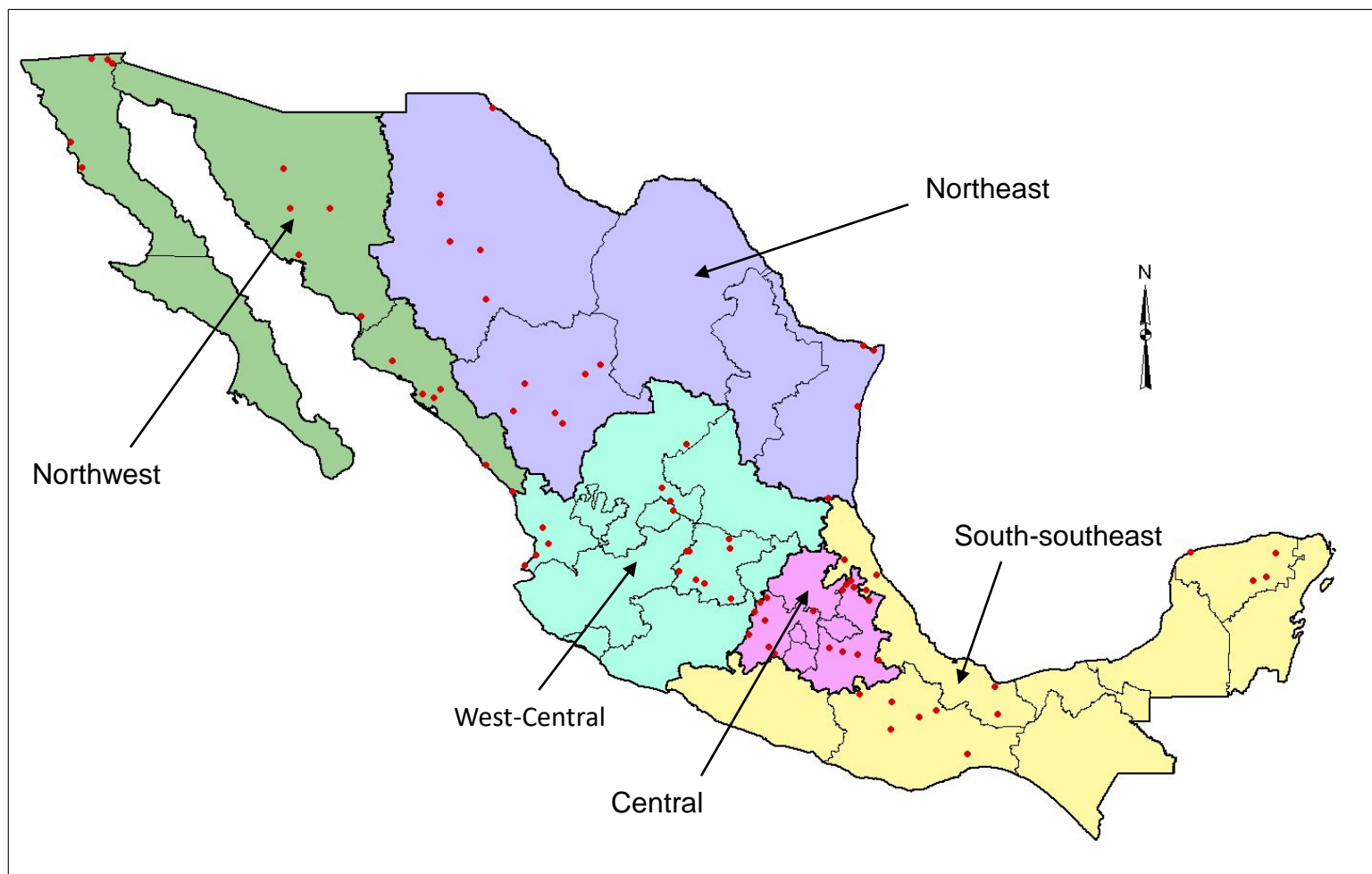
Mexico: More with Less



Rising Productivity in Mexico Means a Higher “Ag Reservation Wage” in the US

The UCD-COLMEX Mexico National Rural Household Survey (ENHRUM)

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



**Percentage Probability of Working in Agriculture
Adjusted Long Run Trends (1982-2010)**

VARIABLES	(1) Trend Controlling for Age	(2) Regional Trends
t	-0.971 (0.080)***	
Age in year t	0.507 (0.049)***	0.520 (0.048)**
Central region		5.843 (5.023)
West-Central region		-3.579 (4.858)
Northwest region		-4.845 (5.018)
Northeast region		-20.134 (5.317)***
South-Southeast regional trend	→	-0.726 (0.165)***
Central regional trend	→	-1.095 (0.176)***
West-Central regional trend	→	-1.287 (0.154)***
Northwest regional trend	→	-1.287 (0.179)***
Northeast regional trend	→	-0.676 (0.206)***
Observations	134,997	134,997
R-squared	0.834	0.834

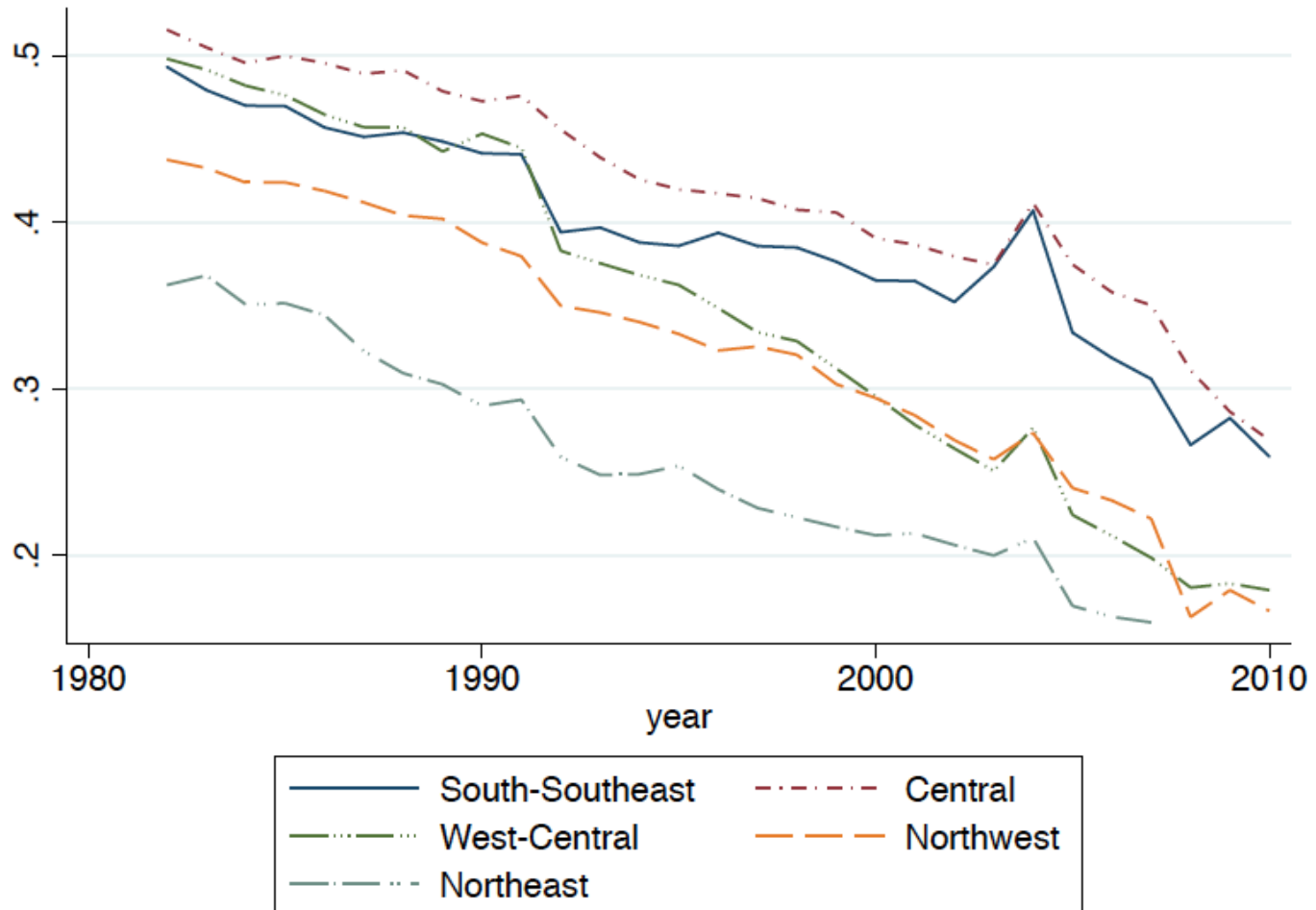
Control for two autoregressive terms in each regression.

Robust standard errors in parentheses, clustered at the individual level

*** p<0.01, ** p<0.05, * p<0.1

Downward Sloping Regional Trends

Predicted Probability of Working in Agriculture by Region

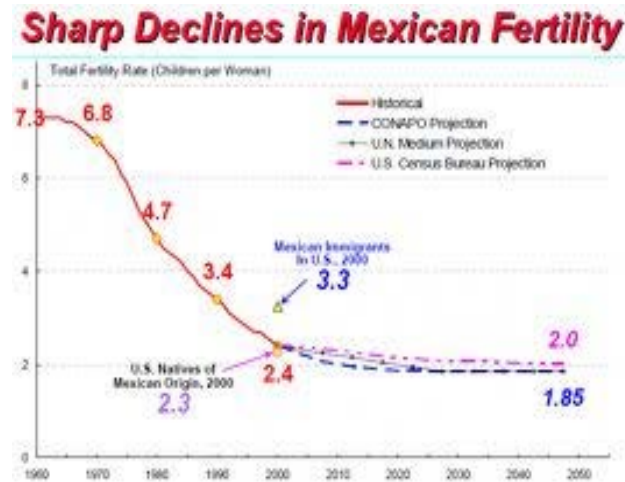


Key Findings from Dynamic Panel Analysis

- The farm labor supply from rural Mexico is decreasing by **over 150,000** people each year
- That is a **0.97%** decrease in the Mexican farm labor supply each year
- U.S. and Mexican farmers compete for this dwindling supply of farm workers

WHY the Negative Trend?

- A falling birthrate:



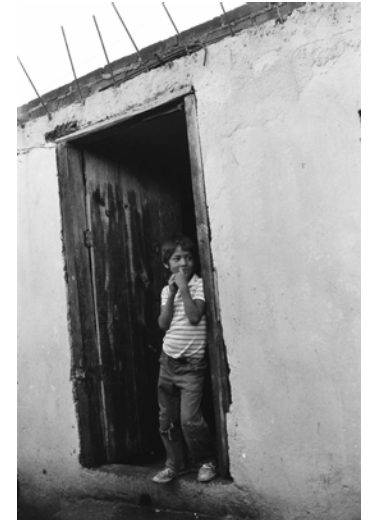
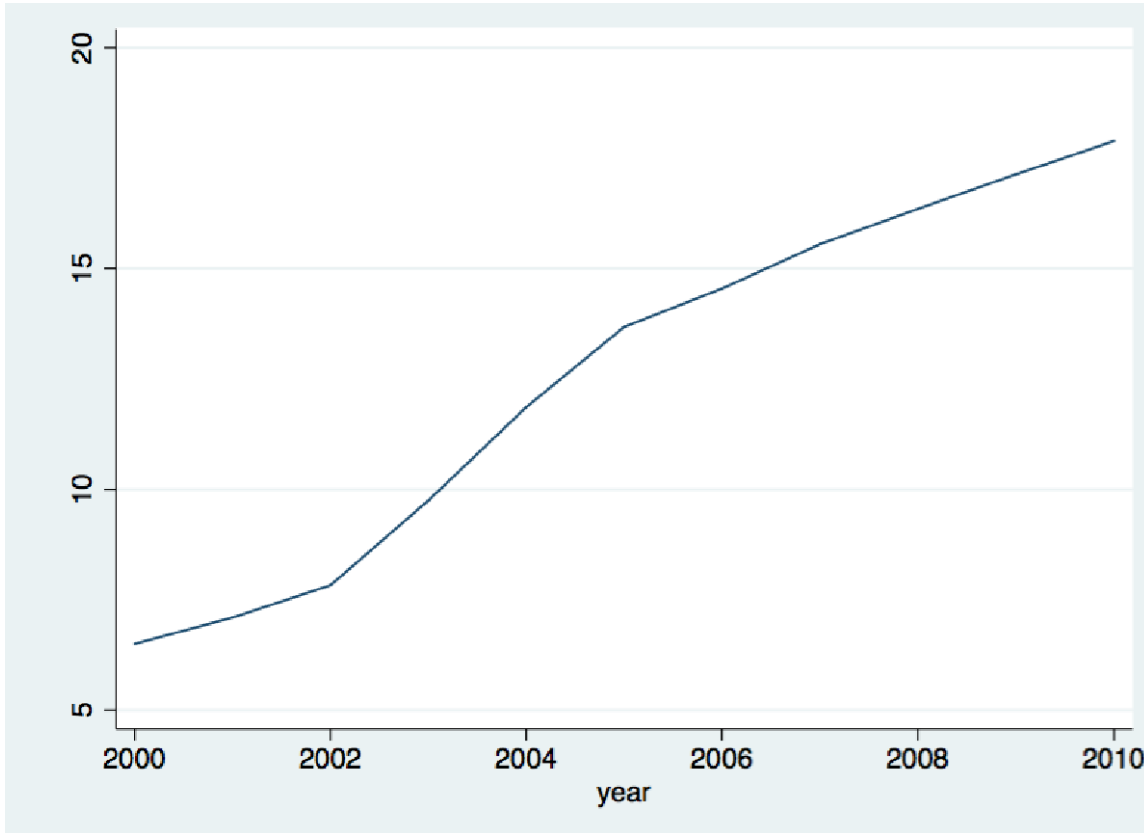
Source: Jeffrey Passel, PEW Research Center

- A growing non-farm economy:

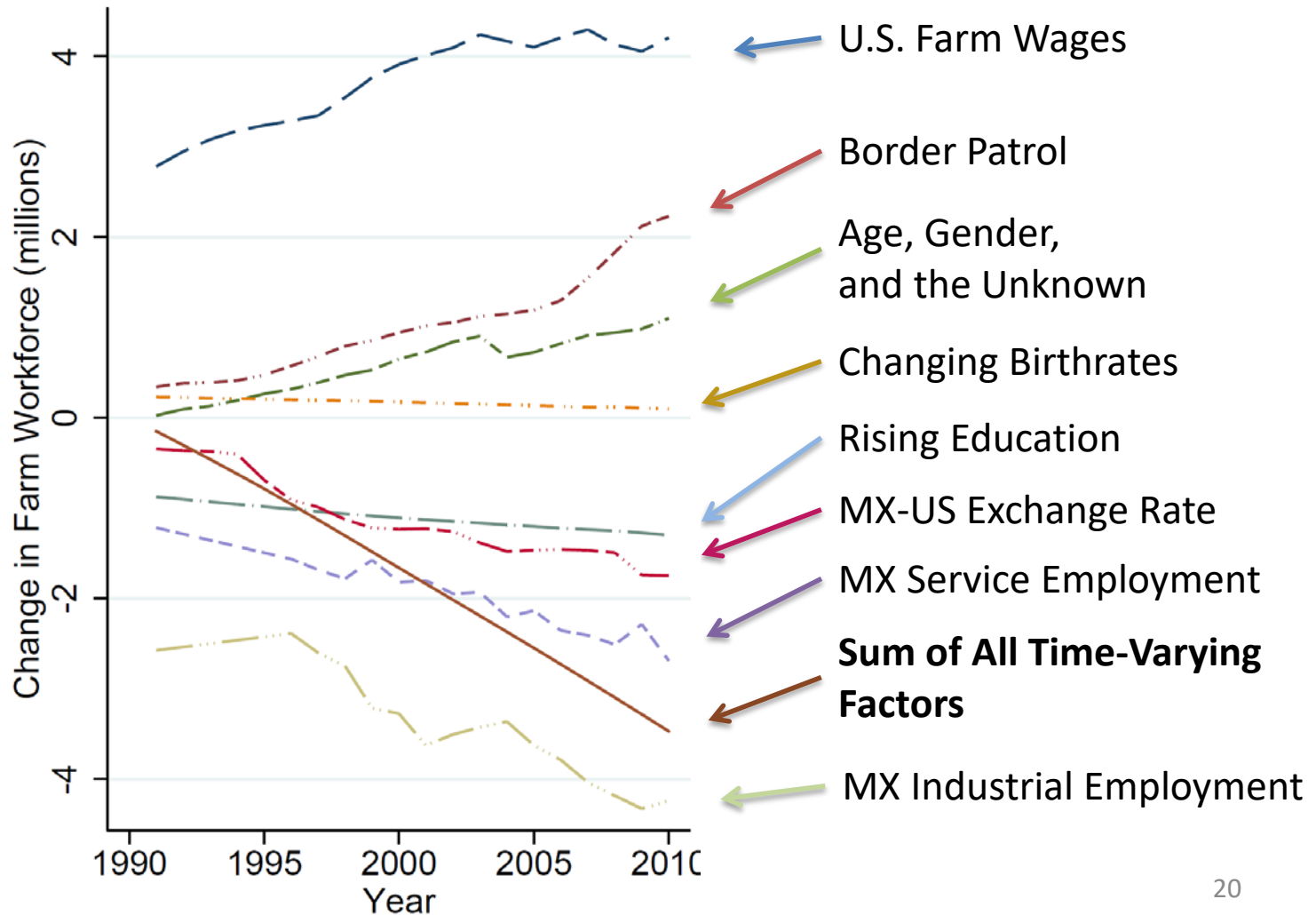


...And Schools!

% of working-age population with a secondary school in their village when 12



“Unpacking” the Trend: How It All Stacks Up



What Does this Mean for U.S. Agriculture in the Long-Run?

- Historically, U.S. agriculture has depended on immigration policy and guest worker programs to ensure an elastic supply of farm labor from Mexico
 - But immigration policy is not a solution if workers don't want to work in agriculture
- U.S. farmers have 3 potential options
 - Find workers from another country or region
 - Reduce production of labor-intensive crops
 - Invest in labor-saving technologies and more efficient labor management practices

Expanding Guest Worker Programs

- Mexico already imports farm workers from Guatemala
- Limited size of potential workforce from other countries
- Logistically and politically complicated



Photo: Ixtapec, Oaxaca, Mexico, 2013

Changing Crop Mix

- ...But there is demand for locally-grown fresh fruits and vegetables.
 - How inelastic is that demand?
 - How much would you pay for a hand-picked peach grown in the Central Valley?



Photo: Arbuckle, California, 2015

Do More with Fewer Workers



the salt

eating and health foodways producers food for thought for foodies

Sunprime: The Grape That Could Revolutionize The Raisin Industry

OCTOBER 07, 2015 1:42 PM ET

EZRA DAVID ROMERO



Sunprime raisins dry on the vine and don't require farmworkers to clip the bunches of grapes before they dry.

Ezra David Romero/Valley Public Radio

Robots in the Fields



What Happens to Labor When Farms Tech Up?

Lessons from “Shake and Catch”

- “Shake-and-catch” machines surround a tree and shake fruit and nuts into a catching frame
- They usually replace many low-skilled foreign-born workers with a few workers with high-school diplomas and sometimes some college
 - Most machine operators speak English and have mechanical skills
 - Some are ex-pickers, but many did not move up from picking to machine operation

Agricultural Investment and Education Will Have to Change

- Adjusting to a future with fewer workers can benefit everyone
 - Labor markets have changed since the tomato harvester
 - Investing in new labor-saving practices can help everyone
- Educate the future “teked-up” farm workforce
 - Currently, young people go to school mostly to get nonfarm jobs
- Increased pressure on employers to retain workers
 - Invest in networks, higher wages & benefits
 - Make older workers more productive
- Good news for ag workers, organizers, rural communities
 - Less labor, higher productivity → higher wages, stronger bargaining position for workers, more stable communities
- Imperative for farmers: New technologies that “make higher wages pay for themselves”

Mil Gracias



Photo: Veracruz, Mexico, 2015

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