The End of Farm Labor Abundance

Challenges and Opportunities

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Farm Labor and the ALRA at 40
UC Davis
April 17, 2015
The Bottom Line: Data Show That...

• Mexico’s farm labor supply is declining
• The demand for labor on Mexican farms is rising
• The reservation wage (minimum wage needed to induce new workers to migrate) is increasing
• Immigration policy doesn’t solve the farm labor problem unless people are willing to do farm work
• U.S. growers must look for labor substitutes
  – Shift to less labor-intensive FVH production
  – Seek migrant workers from other countries?
  – Invest in labor-saving agricultural technologies
    • ...and management practices
Regional Farm Labor Markets in Transition

• Mexico is the major supplier of hired labor to U.S. farms
  – Only 5% 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
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
Key Findings from Dynamic Panel Analysis

• The farm labor supply from rural Mexico is decreasing by over 150,000 people each year.

• That is 0.97% decrease in the Mexican farm labor supply each year.

• U.S. and Mexican farmers compete for this dwindling supply of farm workers.

Source: Charlton and Taylor (2014)
Downward Sloping Trends in all Regions of Mexico

Percentage Probability of Working in Agriculture
Identifying the Trend (1982-2010)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Baseline national trend</th>
<th>(2) Control for age</th>
<th>(3) Regional trends</th>
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<td>Estimated coefficients</td>
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<td>-0.074 (0.007)***</td>
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<td>L.percentage Pr(agr)</td>
<td>0.811 (0.009)***</td>
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<tr>
<td>L2.percentage Pr(agr)</td>
<td>0.107 (0.009)***</td>
<td>0.106</td>
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<td>Observations</td>
<td>134,997</td>
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<td>R-squared</td>
<td>0.834</td>
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Note: Robust standard errors in parentheses, clustered at the individual level
*** p<0.01, ** p<0.05, * p<0.1

Predicted probability of working in agriculture by region
Mean factors expected to affect the farm labor supply
“Unpacking” the Trend: How It All Stacks Up

- U.S. Farm wages
- Border Patrol, line watch hours
- Changing birthrates
- Rising education
- MX industrial to ag GDP ratio
- Age, gender, and the unknown
- Sum of all time-varying factors
Agriculture Will Have to Increase Labor Productivity

• Regional trends in the ag labor supply mean US farms eventually will have to produce more with fewer workers
  – Technological change: mechanization
  – Changing crop mixes
  – More efficient labor management practices
    • Demand for more skilled workers
    • Increasing pressure to retain workers
      – Invest in the networks, higher wages & benefits
    • Rising farm worker productivity and wages
      – Could be good for rural communities
US Farm Worker Wages Are Rising in Most Regions (a Lot in Some)

% Change in farmworker wages, 2011-13

CPI Change: 3.45%

Source: USDA, National Agricultural Statistics Service (NASS).
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

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)
Ag Education Will Have to Change

• Rural residents who obtain education and training usually find nonfarm jobs

• Children of farmworkers eschew agriculture
  – Reports and recommendations on agricultural education do not mention hired farm workers or their children

• US agricultural education system trains farmers and food-system workers, not farm workers
  – Are we getting children of farmworkers into FFA and high-school agricultural programs?
  – Will there be an expansion of skilled farm labor migration in the future?
• Immigration policy plays a role, but it is only an intervening variable against a backdrop of diminishing farm labor supply in Mexico
Conclusion

• Significant negative trend in the farm labor supply from rural Mexico between 1980 and 2010
• Increased border enforcement $\rightarrow$ more workers remain in agriculture, though not U.S. agriculture
• Industrial growth in Mexico and rising rural education reinforce the negative trend
• Higher U.S. farm wages slow Mexicans’ transition out of agriculture, but do not reverse the trend
• Best viable option for agricultural producers:
  – Less labor-intensive crops, technologies, and management practices
References


