



United States Department of Agriculture

The 7th District's Hired Farm Workforce: Characteristics and Trends

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Outline

- **Motivating concern: “The end of farm labor abundance”¹ ?**
 - End of an era of growth in unauthorized immigrant population, which makes up half of hired *crop* workforce nationwide, and a significant share of the livestock workforce
 - Due to economic & demographic change in Mexico; recession; enforcement
 - Lots of anecdotal evidence of labor shortages. Are wages/costs rising?

- **Focus on 5 States in 7th Federal Reserve District (IA, IL, IN, MI, WI):**
 - Employment of hired farm workers: conflicting estimates
 - Demographics: Differences between 7th District and rest of U.S.
 - Weekly and hourly wages
 - Labor costs as share of value of production
 - Unemployment
 - Poverty of farmworker households

¹J. Edward Taylor, Diane Charlton and Antonio Yúnez-Naude, *AEPP*, 34(4). 2012.



Farm Employment: QCEW

➤ *Quarterly Census of Employment and Wages (QCEW)*

- Covers farm employers required to pay Unemployment Insurance: those with 10+ workers, or with a payroll of \$20,000+ in at least one quarter (3-4 FTEs)
- 86% of agricultural workers captured at national level, less in this 5-State region
- Omits self-employed (farm operators) but includes unauthorized hired workers
- Industries: Crops, Livestock, Support Services, all occupations
- **Between 2002 & 2014, QCEW employment in farm industries grew from 76,000 to 104,000 (+36%), driven by 70% growth in livestock (IA hogs, WI dairy)**
- Some of this growth may be an artifact of growth in farm size, leading to higher coverage rate. In livestock, workers/covered farm grew from 10.5 to 12.4
- Support services including contract labor grew by 58% over this period, but only account for 15% of total in 2014



Farm Employment: CPS

➤ *Current Population Survey (CPS)*

- Household-based; may not capture all seasonal workers
- Permits selection of farm occupations as well: defined narrowly, yielding lower estimates of farm employment than other sources
- Self-employed are covered, but I omit them here; contract workers in support industries are included
- **Between 2003-4 & 2013-4, hired farm employment grew from 73,000 to 96,000 (+30%) in the 5-State region**
- But in this survey, employment growth is driven by growth in crop farming, not livestock!



Farm Employment: COA

➤ *Census of Agriculture (COA)*

- Counts of workers cannot readily be converted to FTEs
- However, we can estimate total annual hours of work by dividing labor expenses (including contract labor) by hourly wages estimated from other sources (FLS):

	2002	2007	2012
Total labor expenses (\$1000)	2,254,636	2,863,534	3,634,287
Average wage*	9.30	10.80	12.17
Employment (FTEs)	121,217	132,571	149,313
Growth since 2002		9%	23%

* Based on average hourly wage for 8 States in Corn Belt 1, Corn Belt 2, and Lake Districts of NASS Farm Labor Survey (FLS)

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Farm Employment: FLS

➤ *Farm Labor Survey*

- Not available at State level
- 7th District contained in Corn Belt 1, Corn Belt 2, and Lake Districts, which also include OH, MO, MN
- For directly hired farmworkers in crops and livestock (excluding contracted support services) in these eight States, **employment grew by just 5% between 2002 and 2013, then *fell* by 18% in 2014**
- Are these numbers reliable? Discrepancy with other sources is not driven by declines in OH, MN, MO: crop and livestock employment in those states grew by 15% according to QCEW
- Also cannot be explained by omission of contract labor



Demographics of Hired Farm Laborforce: 2013-2014

	5 States			Rest of US	
	Crops	Livestock	Services	All	All
Average Age	37	32	32	35	38
Female (%)	14	16	26	16	23
Married (%)	47	29	24	38	51
US Born (%)	94	72	90	85	52
Foreign Born, Naturalized	6	28	10	3	5
Foreign Born, Not Citizen				12	43
White, Not Hispanic (%)	88	71	90	81	40
Hispanic	10	28	10	17	53
All Other	2	1		2	7
Less than High School (%)	19	32	40	26	50
High School	40	35	17	37	29
Some College / Associate	28	26	18	27	14
Bachelors and Above	13	6	25	11	7
Size of Labor Force, 2013-14*	56,400	44,559	5,872	106,830	803,364

* Includes unemployed

Source: Author's analysis of 2013 and 2014 Monthly Current Population Survey microdata.

Note: Farm occupations include Managers, Supervisors, General Agricultural Workers, and Graders and Sorters. Small cells were combined as needed for reliability.

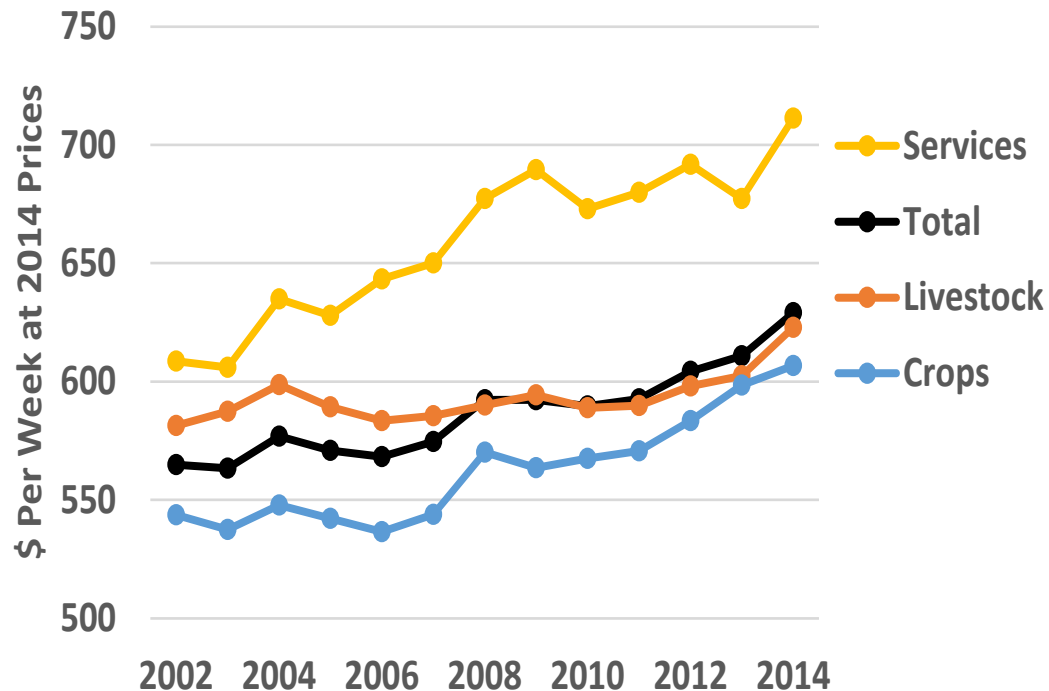
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Real Average Weekly Earnings: QCEW At 2014 Prices

➤ Real weekly earnings per worker up **11%** since 2002:

- Services: 17%
- Crops 12%
- Livestock 7%

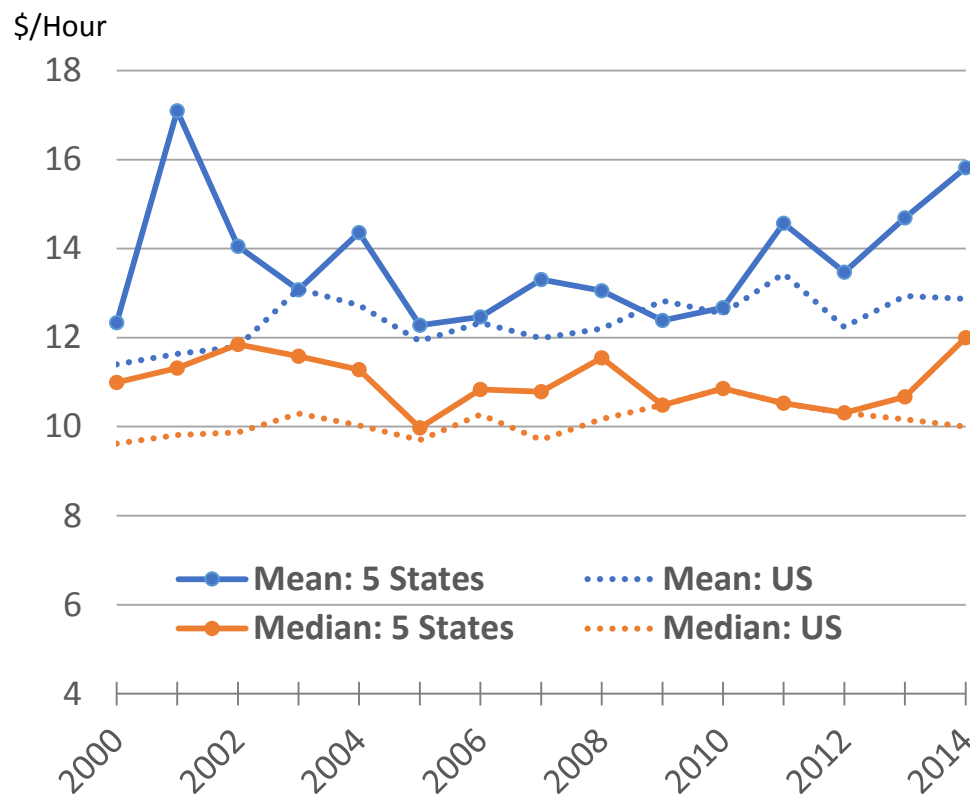


Source: QCEW public use data



Real Hourly Wages: CPS At 2014 Prices

- Wage data rather noisy
- 5 States since 2002:
 - Mean up by 13%
 - Median up by 1%
- Faster growth since 2010:
 - Mean up by 25%
 - Median up by 11%
- US since 2002:
 - Mean up by 9%
 - Median up by 1%



Source: Author's analysis of CPS Monthly Outgoing Rotation Group microdata, compiled by Center for Economic Policy Research

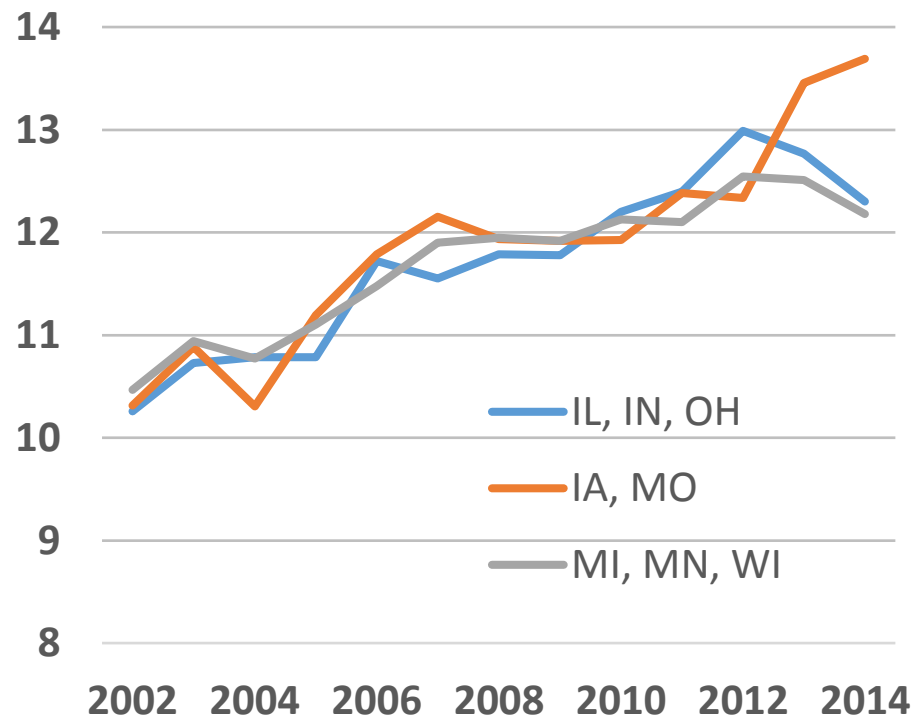
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Real Hourly Wages: FLS At 2014 Prices

➤ Real wage growth of **21%**
since 2002:

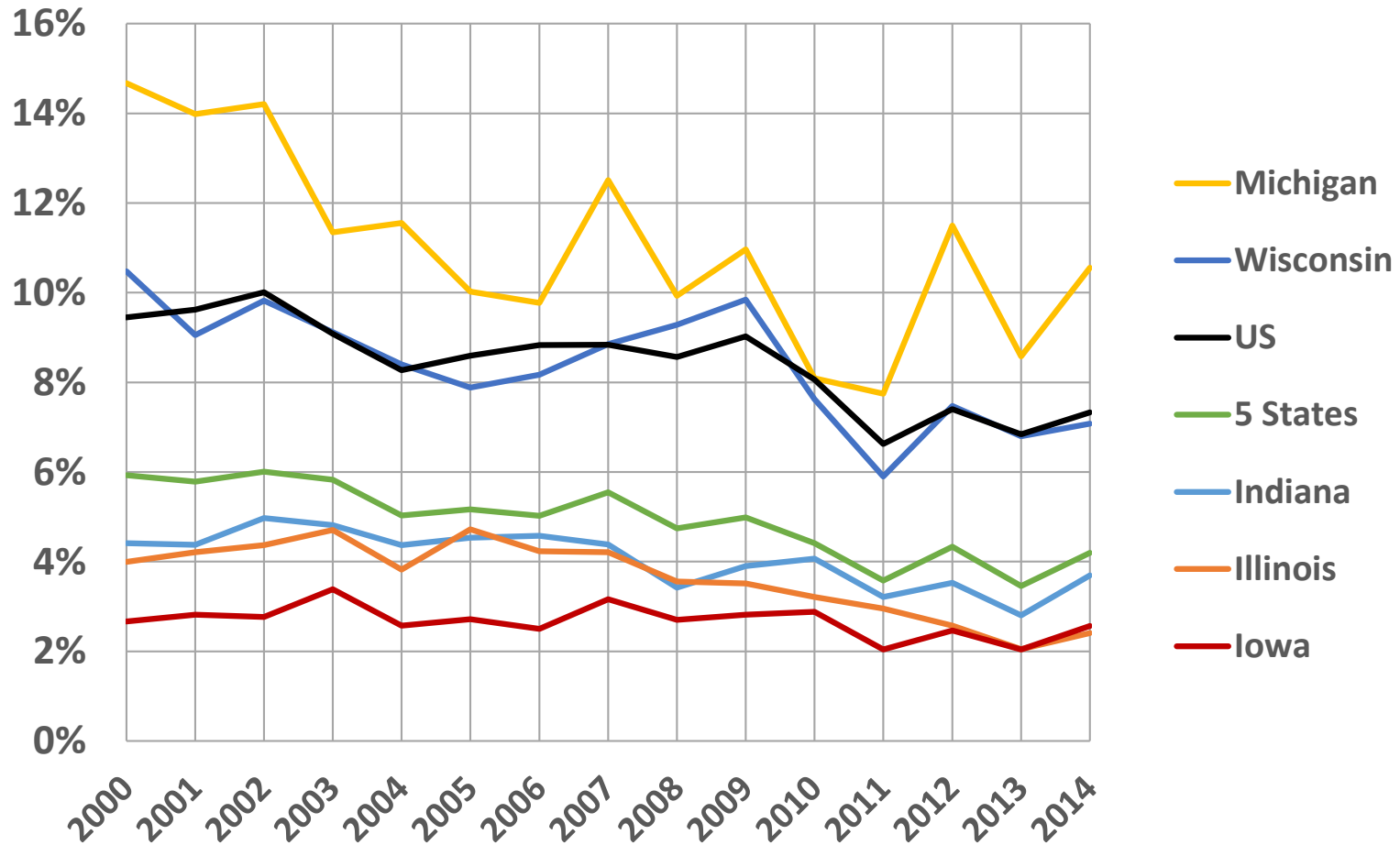
- IL, IN, OH: 20%
- IA, MO: 33%
- MI, MN, WI: 16%



Source: NASS Farm Labor Survey



Yet Hired+Contract Labor Costs Have *Fallen* as Share of Value of Production



Source: USDA, ERS, Farm Income and Wealth Statistics.

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Unemployment Rates: 2013-2014

- Seasonality of crop farm work means that unemployment rates remain high on average; not an issue for livestock

Unemployment Rates By Sector (%)

	5 States	Rest of US
Crops	12.9	14.6
Livestock	6.4	3.1
Support Services	15.4	15.7
Total	10.3	11.2

Unemployment Rates By Occupation (%)

	5 States	Rest of US
Managers	3.9	4.3
Supervisors	na	1.4
Graders and Sorters	na	21.4
General Workers	12.1	12.1
Total	10.3	11.2

Source: Author's analysis of 2013 and 2014 Monthly CPS microdata

“na”: Sample size too small for reliable estimation



Poverty Rates for All Members of Farm vs. Nonfarm Households, 7th District vs. Rest of U.S.

	District 7: Percent Poor			Rest of U.S.: Percent Poor		
	Hired Farmworker Families	Nonfarm Families	Self-Employed Farm Families	Hired Farmworker Families	Nonfarm Families	Self-Employed Farm Families
2003 & 2007	7.6	10.9	6.5	20.4	12.7	9.8
2010, 2012, & 2014	19.5	13.5	7.3	23.5	15.1	9.5
Change (% Points)	12.0	2.5	0.8	3.1	2.5	-0.3

Source: Author's analysis of CPS-ASEC microdata, selected years (pre-recession versus post-recession)

Note: Families with both hired and self-employed farm workers were classified as self-employed

Percentage point changes over time in **bold face** are statistically significant at 90% confidence level

- Poverty among hired farmworker families in 7th District more than doubled after 2007, from an unusually low base
- Hired farmworker families have higher-than-average poverty rates, while self-employed farm families are less poor than average, as in rest of U.S.
- Farm family poverty rates in 7th District are not statistically significantly lower than in rest of U.S. Nonfarm family poverty (13.5%) is significantly lower than rest of U.S.

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Summary: 5 State Results

- **Employment:** Up by 23–36% since 2002/3. FLS an outlier (declines)
- **Real wages/earnings:** Up by 11–21% since 2002. FLS is the high estimate
- **Labor costs** as share of value of output have fallen from 6% to 4% since 2002, despite hourly/weekly wage increases
- **Median hourly wages** growing more slowly than means in CPS data
- **Hired farmworker unemployment** was 10% in 2013-14. Lowest for livestock (6%) and managers (4%)
- **Poverty:** 20% of people living in families with at least one hired farmworker (and no self-employed farmworkers) were poor in 2010-14, compared to 14% for nonfarm families and 7% for self-employed farm families

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