

Comparing Injury Rates Between Employers with and without H-2A Visa Workers

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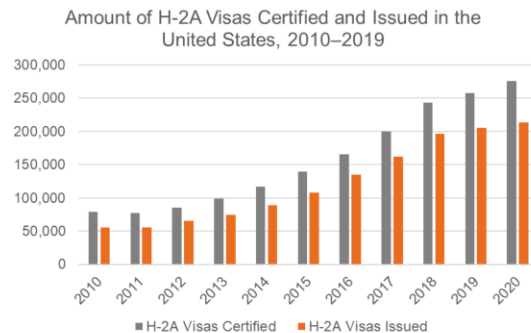
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Hello everyone, my name is Luke Sampson and I am a CSTE applied epidemiology fellow at Washington state department of labor and industries in the SHARP program and today I have the pleasure of sharing my work looking into injury rates between employers with and without H-2A visa workers.

Background

- **Federal H-2A Visa Program:**
 - Supplies labor for seasonal farm work
 - Has no limit on the amount issued or applied for (unlike the similar, H-2B visa)
- **Florida, Georgia, Washington State, California, and North Carolina account for over 50% of all H-2A visas issued**
 - In 2020, Washington State accounted for 9.5% of all H-2A visas
- **H-2A workers may be at higher risk for injury and employer exploitation**



Sources: US Dept. of Labor and US Dept. of State; Arcury T, *Journal of Agromedicine* 2015

For those who aren't familiar, the H-2A visa program supplies nonimmigrant visas for seasonal farm work. It was created in 1986 to fill labor demands without increasing the general population and in the past decade, the number of H-2A workers has nearly quadrupled.

In 2020, just five states, accounted for more than 50% of all H-2A visas issued and Washington State accounted for 9.5% of all H-2A visas.

Previous research suggests H-2A workers work longer hours and have non-work stressors that may influence their safety. And anecdotal evidence from labor organizations document H-2A workers being subject to exploitation from employers.

Background

Non-H-2A Employer Full Time Equivalent Employees by Industry, 2020

	FTE
Orchards	10,543.3
Vegetable Farms - Machine Harvest	3,192.7
Diversified Field Crops	3,104.2
Greenhouses	2,590.1
Dairy Farms	2,173.3
Nurseries	2,115.5
Vegetable Farms - Hand Harvest	1,805.0
Vineyards	1,538.5
Hop and Mint Farms	1,052.4
Berry Picking	733.5
Livestock Farms	532.7
Poultry Farms	412.8
Fish Hatcheries	90.5
Christmas Tree Farms	71.4

H-2A Employer Full Time Equivalent Employees by Industry, 2020

	FTE
Orchards	8,901.6
Hop and Mint Farms	1,222.9
Vegetable Farms - Machine Harvest	465.1
Vineyards	378.0
Nurseries	232.3
Berry Picking	207.2
Vegetable Farms - Hand Harvest	204.0
Diversified Field Crops	78.1
Dairy Farms	22.3
Poultry Farms	9.8
Greenhouses	<5
Livestock Farms	<5
Christmas Tree Farms	<5
Fish Hatcheries	<5

These graphs show a breakdown of the amount of full time equivalent workers in each agricultural industry sector split between employers with and without H-2A visa workers. Orchards employed the most workers in employers with and without H-2A visa workers. Noticeably, there were more FTE workers in the Hop and Mint Farms that employed H-2A visa workers compared to the Hop and Mint Farms that did not.

Research Question

- Are there differences in workers compensation claim rates between agricultural employers who apply for H-2A visa workers versus agricultural employers who do not apply for H-2A workers?

Because we can't tell in an individual claim if someone is an H-2A worker or not, our research question for this project was interested in investigating if there were any differences in workers compensation claim rates between agricultural employers who applied for H-2A workers versus those who did not.

Methods

- **Data sources:**
 - U.S. Department of Labor (DOL) H-2A Visa employer application data
 - Washington State workers compensation claims data
 - Single-payer system (state fund)
- **Matching Process:**
 - Included businesses that had accepted applications for H-2A visa workers in 2020
 - 145/152 (95%) SF and SI businesses matched after hand matching (92% of certified workers)
 - 7 employers not matched to WA workers compensation payroll data

We used two data sources for our analysis. We used the publicly available H-2A visa application data from the department of labor and we also used Washington State workers compensation claims data, which collects data from our single-payer system for workers compensation insurance, known as the state fund.

We matched these two data sources using employer names and addresses. And we successfully matched 95% of employers, which accounted for 92% of certified H-2A workers in the state.

Results: Claim Type Rates

- Among State Fund employers:
 - Rates of medical only workers compensation claims were significantly higher in H-2A visa employers
 - Rates of wage replacement workers compensation claims were similar among H-2A visa employers

		H-2A Employer* (95%CI)	Not H-2A Employer* (95% CI)	Rate Ratio (95% CI)†
State Fund	<i>Medical Only Claims</i>	83.8 (78.6, 89.1)	50.1 (47.5, 52.6)	1.67 (1.59, 1.75)
	<i>Wage Replacement Claims</i>	20.7 (18.1, 23.3)	19.2 (17.6, 20.7)	1.08 (0.93, 1.23)

*Rates were calculated per 1,000 FTE workers

†Not H-2A employer rates were the reference group for RR calculations

So what did we find? Among State Fund employers, rates of medical only workers compensation claims were significantly higher in H-2A visa employers compared to those who did not apply for H-2A workers. The rate of injury was 67% higher in H-2A employers.

Interestingly, we observed a null effect when we looked at State Fund workers compensation claims that resulted in wage replacement. The rate of injury was similar in the H-2A employers.

Results: Cost of Claim Types

- Among State Fund employers:
 - Median costs of medical only workers compensation claims were similar for H-2A visa employers and non-H-2A visa employers
 - Median costs of wage replacement workers compensation claims were far lower for H-2A visa employers compared to non-H-2A visa employers

		H-2A Employer	Not H-2A Employer	Cost Ratio*	Median Cost Difference*
State Fund	<i>Medical Only Claim Cost (Median)</i>	\$806.42	\$839.37	0.96	-\$32.95
	<i>Wage Replacement Claim Cost (Median)</i>	\$5,621.67	\$11,601.92	0.48	-\$5,980.25

*The not H-2A employer group was the reference group for cost ratio and median cost difference calculations

Among state fund employers, the median cost of medical only claims was similar between groups; however, the median claim cost for wage replacement claims in H-2A employers was nearly half that of the not h2a employers.

Results: Agricultural Employer Type Rates

	H-2A Employer Rates	Not H-2A Employer Rates	Rate Ratio (95% CI)
Orchards	113.6	83.3	1.36 (1.27, 1.45)
Vegetable Farms - Machine Harvest	47.3	73.9	0.64 (0.20, 1.08)
Diversified Field Crops	102.5	69.9	1.47 (0.76, 2.17)
Greenhouses*	---	43.2	---
Nurseries	68.9	63.8	1.08 (0.56, 1.60)
Hop and Mint Farms	94.0	67.5	1.39 (1.10, 1.69)
Dairy Farms*	---	86.5	---
Vegetable Farms - Hand Harvest	68.6	51.0	1.35 (0.78, 1.91)
Vineyards	97.9	40.3	2.43 (2.02, 2.84)
Berry Picking*	9.7	12.3	0.79 (0.00, 2.32)
Livestock Farms*	348.1	84.5	4.12 (2.14, 6.10)
Poultry Farms*	102.2	55.7	1.83 (0.00, 3.84)
Fish Hatcheries*	---	66.3	---

*Rates for the following industries had <5 claims among the H-2A employers

When we stratified by specific agricultural industries, Orchards, Hop and Mint Farms, Vineyards, and Livestock Farms that employed H-2A workers had significantly higher rates of injury than their industry counterparts who did not employ H-2A workers.

Interestingly, the other agricultural industries had no significant difference in the injury rates.

Results: Accident Type Rates

Exposure to caustic, noxious, or allergenic substances*



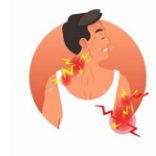
Rate Ratio (95%CI):
2.95 (2.65, 3.25)

Falls to lower levels*



Rate Ratio (95%CI):
2.25 (2.09, 2.43)

Bodily reactions*



Rate Ratio (95%CI):
1.90 (1.70, 2.10)

* Not H-2A employer rates were the reference group for RR calculations

When we stratified rates by specific accident types, rates of exposure to caustic, noxious, or allergenic substances, falls to lower levels, and bodily reaction accidents were significantly higher among H-2A employers.

Repetitive motion claims were more common in non H-2A employers.

Bodily reactions are defined as “ a single incident that causes stress on the body, bending twisting spraining muscle from a single incident”.

Discussion

- Medical only workers compensation claims rates were higher in State Fund H-2A employers
 - Lack of proper safety training
 - Shifting wage replacement claims to medical only claims through light duty opportunities
- Wage replacement claims were similar in State Fund H-2A employers
 - Shifting wage replacement claims to medical only claims through light duty opportunities
 - Employment characteristics of H-2A program may suppress accessing wage replacement benefits
- Possibly more underreporting in H-2A employers due to decreased work stability, limited knowledge of coverage, or lower wages
- H-2A employers are paying significantly less for their wage replacement claims

This discussion slide presents the findings in the context of other studies and includes the authors' hypotheses for the mechanisms contributing to the findings. This is not an exhaustive list of potential mechanisms leading to differences in employers noted here. Further research is needed to test these hypotheses.

So what does this all mean? Higher medical only claims rates and similar wage replacement claims rates may be due to H-2A employers shifting possible wage replacement claims to medical only claims through light duty work opportunities. Additionally, the similar wage replacement claims rates may be from how the H-2A program functions and the power dynamics between employer, worker, and financial stability.

For example, underreporting may be more prevalent in H-2A workers because they are scared to report injuries. Because employers grade H-2A workers at the end of each season, there is immense pressure for H-2A workers to continue working by any means, and workers often want to work for full pay through injuries while in the United States.

In addition to these complex power dynamics between employers and H-2A workers, wage replacement claims rates may be lower because of limited knowledge or education of the workers compensation system or lower wages.

These possible causes of lower wage replacement rates are exemplified when we look at the median cost of wage replacement claims among H-2A employers. These

lower costs are an indicator of differential amounts of underreporting, lower wages, and increased pressure to continue working.

Discussion

- Specific agricultural industry rates may help identify areas of intervention
- Acute exposure accident types were more common in H-2A employers



This discussion slide presents the findings in the context of other studies and includes the authors' hypotheses for the mechanisms contributing to the findings. This is not an exhaustive list of potential mechanisms leading to differences in employers noted here. Further research is needed to test these hypotheses.

Knowing specific agricultural industry rates may help identify areas of intervention, for example, H-2A employers in industries with increased rates may benefit from language appropriate safety training. In addition, we noticed acute injury types being more common in H-2A employers.



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And if you'd like to contact me to hear more about this research please feel free to reach out via email. Thank you!