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Immigration Status and Workers' Willingness to Stay in Farm work

Zhengfei Guan^{1,2,*}, Berdikul Qushim¹, and Feng Wu¹

¹University of Florida, Gulf Coast Research and Education Center

²Food and Resource Economics Department, University of Florida,

*Correspondence: Zhengfei Guan, e-mail: guanz@ufl.edu

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Introduction

The agricultural sector in the U.S. heavily relies on foreign-born workers. Most of these workers are not legally authorized to work. According to the U.S. Department of Labor's National Agricultural Workers Survey (NAWS), 76% of the crop workers surveyed in 2009-2010 were foreign born. 52% of crop workers surveyed self-reported that they were not legally authorized to work in the U.S. and 90% of these unauthorized workers were working in the specialty crop industry (NAWS, 2009-2010). The percentage of unauthorized workers and labor shortages highlighted serious labor supply issues in U.S. agriculture.

The objectives of this research are to determine: (1) factors affecting workers' willingness to stay in farm work, (2) how legal or visa status would change their willingness to stay in farm work, (3) what factors are affecting the change.

Data and Methods

Worker data were collected in Spring 2016 in a survey of 592 farmworkers in the Florida strawberry industry. Information collected includes worker demographics, wages and employment, farm and non-farm work experiences, visa status, expected number of years to stay in farm work, among others.

We used ordered logit models to study factors affecting the farmworkers' expected length of stay in farm work, and binary logit model to identify factors causing decreased willingness to stay after legal status change.

Data and Methods (Cont.)

Table 1. Summary statistics of variables

Variable	Definition	Mean	SD
Stayinfw	Ordinal variable, workers' expectation to stay in farm work (years): 1: <1; 2: 1-3; 3: 4-5; 4: >5	2.87	1.27
StayinfwPR	Ordinal variable, workers' expectation to stay in farm work if they had a permanent residency (PR) (years): 1: <1; 2: 1-3; 3: 4-5; 4: >5	2.77	1.28
Differ	Dummy, =1 if PR shortens workers' expectation to stay in farm work, =0 otherwise	0.31	0.46
Gender	=1 if female; =0 if male	0.74	0.44
Marstatus	=0 if single, =1 if married;	0.58	0.49
Age	Age, years	31.56	9.87
Educ	Education, years	7.02	3.68
Yearsfw	Years working in farm work	7.67	6.77
Status	=1 if U.S. citizen, Permanent resident, and H-2A visa holder; =0 if Other	0.27	0.44
H2A	=0 if H-2A visa holder; =1 if U.S. citizen, Permanent resident, and Other	0.79	0.41

Results

Using a non-parametric paired test, we found the expected length of stay in farm work is shortened if workers had permanent legal status and the difference is statistically significant.

The parameters of the ordered logit models for the workers' expected length of stay in farm work and expected length of stay *if* they had permanent legal status as well as parameters of binary logit model of shortened stay after legal status change are presented in Table 2.

The results show that workers' expected length of stay in farm work increases with gender (male), years in farm work, and H-2A visa status, and decreases for authorized workers.

Results (Cont.)

Workers with higher education attainment are more likely to change (shorten) the expected length of stay and older workers tend to not change the expected length of stay whether they had permanent legal status. H-2A workers are more likely to change if they had permanent legal status.

Table 2. Ordered logit model results

Variable	Ordered Logit model: Expected length of stay in farm work		Ordered Logit model: Expected length of stay <i>if</i> workers had permanent legal status		Binary Logit model: Stay shortened after legal status change	
	Coef.	SE	Coef.	SE	Coef.	SE
Educ	-0.019	0.028	-0.057**	0.027	0.079**	0.031
Age	0.009	0.011	0.039***	0.012	-0.036**	0.014
Gender	-1.261***	0.249	0.494**	0.213	-0.173	0.229
Marstatus	-0.051	0.194	-0.173	0.184	0.323	0.216
Yearsfw	0.056***	0.019	0.029*	0.017	0.015	0.019
Wage	0.004	0.009	0.018*	0.009	-0.014	0.014
Status	-0.706***	0.386	-	-	-	-
H2A	0.773*	0.459	-0.457*	0.250	1.524***	0.363
Cons	-	-	-	-	-1.637**	0.663
/cut1	-1.463	0.681	-0.675	0.529	-	-
/cut2	-0.269	0.682	0.206	0.528	-	-
/cut3	0.033	0.681	0.506	0.528	-	-
Pseudo R	0.124		0.041		0.074	

*, **, and *** show significance at 0.05, 0.01 and <0.01 levels, respectively.

Conclusions

Labor shortages are posing a direct threat to agriculture, especially the labor-intensive specialty crop industry. We analyzed factors influencing workers' labor supply decisions and investigated the impact of workers' immigration status on expected labor supply. Findings of this study suggest that workers with permanent legal status are generally less willing to stay in agriculture and that H-2A workers will be a reliable source of legal labor supply for the industry to address labor shortages. The findings of this study provide support for immigration reforms that relax restrictions on the H-2A program.