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**Employer-Provided Health Insurance Benefit and the Employment Decisions of Documented and Undocumented Farm Workers**

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# Employer-Provided Health Insurance Benefit and the Employment Decisions of Documented and Undocumented Farm Workers

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## Introduction

- ❑ Labor shortage issues persist in the U.S. agricultural sector during recent decades.
- ❑ Provision of employer provided health insurance (EPHI) is usually used as a strategy to attract prospective workers or achieve a higher job retention rate among its existing employees.
- ❑ Agriculture is unique in two aspects with respect to EPHI
  - High risky operation circumstance
  - Low EPHI coverage rate

## Objective

Evaluate the effectiveness of EPHI incentive on employment decisions of the U.S. documented and undocumented farm workers.

## Data

- ❑ Data source: 2002-2009 National Agricultural Workers Survey (NAWS)
- ❑ This survey provides comprehensive micro-level individual information on farm workers in the U.S.
- ❑ Two outcome variables of interest:
  - Actual working days per year (objective data)
  - Expected years of staying in agriculture (subjective data)
- ❑ Two subsamples:
  - Documented workers: Citizens and Green card holders
  - Undocumented workers.
- ❑ Data preprocessed by applying Coarsened Exact Matching
  - First introduced by Iacus et al. (2011)
  - Diminishes endogeneity problems in estimation



## Econometric Model

The model used is ordered probit model, which takes the brief form for each individual:

$$Y_i = \beta X_i + \gamma EPHI_i + \varepsilon_i$$

where  $Y_i$  is a latent variable indicating the multiple employment choices,  $X_i$  indicates demographic covariates and  $EPHI_i$  is a dummy which takes value 1 if farm workers is covered by EPHI.  $\varepsilon_i$  is the error term

## Results

Table 1. EPHI estimates of undocumented and documented farm workers' expected employment duration

	oprobit		CEM oprobit	
	Marginal Effect	Std.Err	Marginal Effect	Std.Err
<b>Undocumented Farm worker</b>				
outcome1	0.0007292	0.00203	-0.0035916	0.0061
outcome2	0.0062796	0.01714	-0.0123945	0.02153
outcome3	0.001675	0.00456	-0.0023024	0.00409
outcome4	0.0044305	0.0119	-0.0016376	0.00293
outcome5	-0.0131144	0.03559	0.0199261	0.03459
<b>Documented Farm worker</b>				
outcome1	-0.0002417	0.00161	-0.0128531***	0.00584
outcome2	-0.0013124	0.00877	-0.0316935***	0.01422
outcome3	-0.0005096	0.0034	-0.0068294***	0.0033
outcome4	-0.0019458	0.01302	-0.0163006***	0.00764
outcome5	0.0040096	0.0268	0.0676766***	0.03006

Note: \*\*\*denotes statistically significant at 1% level.  
Outcome1: less than one year; outcome2: one to three years; outcome3: four to five years; outcome4: over five years; outcome5: as long as I am able to stay.

Table 2. EPHI estimates of undocumented and documented farm workers' actual employment duration

	oprobit		CEM oprobit	
	Marginal Effect	Std.Err	Marginal Effect	Std.Err
<b>Undocumented Farm worker</b>				
outcome1	-0.0056798***	0.00241	-0.0300703***	0.0056
outcome2	-0.0074733***	0.00294	-0.0295043***	0.00576
outcome3	-0.0074761***	0.00296	-0.0231348***	0.00494
outcome4	-0.0188163***	0.00762	-0.0428964***	0.00775
outcome5	-0.01559***	0.00661	-0.0372058***	0.00714
outcome6	-0.0457638***	0.02095	-0.0725958***	0.01602
outcome7	0.1007992***	0.04166	0.2354073***	0.03667
<b>Documented Farm worker</b>				
outcome1	-0.0035383***	0.00146	-0.0091916***	0.00318
outcome2	-0.0048013***	0.00186	-0.0195566***	0.00531
outcome3	-0.0050943***	0.00196	-0.0185154***	0.00504
outcome4	-0.0190111***	0.00623	-0.0247459***	0.00627
outcome5	-0.018093***	0.00605	-0.0197638***	0.00516
outcome6	-0.0457844***	0.01543	-0.0509123***	0.01258
outcome7	0.0963223***	0.03122	0.1426856***	0.03132

Note: \*\*\*denotes statistically significant at 1% level.  
Outcome1: 1-29 days; outcome2: 30-59 days; outcome3: 60-89 days; outcome4: 90-149 days; outcome5: 150-179 days; outcome6: 180-249 days; outcome7: 250-365 days.

## Conclusions

- ❑ Domestic, documented farm workers resemble the general U.S. farm workers in response to the EPHI by increasing actual working days and employment duration expectation.
- ❑ Undocumented farm workers were found to increase their actual farm work days upon acquiring EPHI incentives while their farm employment duration expectations are not affected.
- ❑ EPHI plays a weak role in retaining undocumented farm workers, who would leave farms once legal status is attained and skill restriction disappear.
- ❑ The inconsistencies between an undocumented farm worker's behavior and expectation suggest the importance in accounting for subjective considerations.