### delivering the promise of science



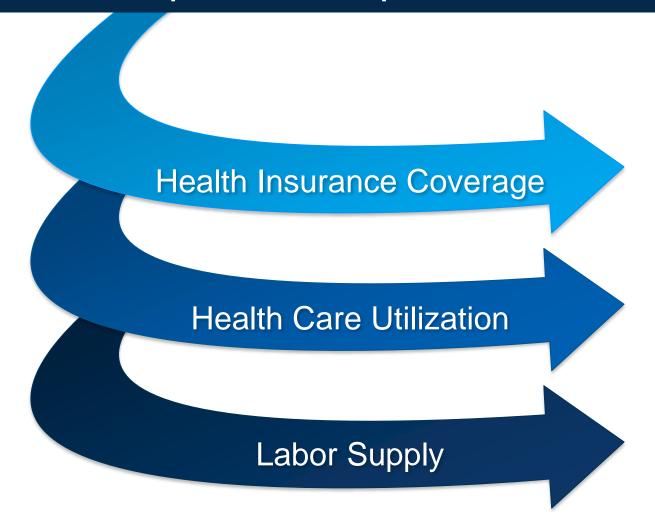


The Impact of ACA Medicaid Expansion on Agricultural Workers' Health Insurance Coverage and Medical Care Utilization

Amy M. G. Kandilov, PhD Ivan T. Kandilov, PhD

Prepared for: North Carolina Agricultural Health & Safety Symposium March 27, 2019

# State-level Medicaid expansions could have a significant impact on crop workers'...



#### Literature Review

- To the best of our knowledge, this is the first study looking exclusively at the effects of the ACA on the agricultural worker population.
- Multiple studies using the American Community Survey

   Frean, Gruber, and Sommers (2017); Kaestner et al. (2017); Courtemanche et al. (2017) – find increases in government HI coverage with little or no change in private HI coverage.
- Simon et al. (2017) use data from the Behavioral Risk Factor Surveillance System to show that Medicaid expansions increased HI coverage, access to care, and use of some forms of preventive care.
- Kaestner et al. (2017) find small increases in working hours following the ACA expansion.

# Study Population - National Agricultural Workers Survey

- The National Agricultural Workers Survey (NAWS) is the only nationally representative survey of demographic, employment, and health characteristics of hired crop workers.
- Cross-sectional, confidential
- From 2007 to 2016
- Sample size of 9,950 documented crop workers
- Excluded from the main analyses - 8,148 undocumented workers ineligible for Medicaid

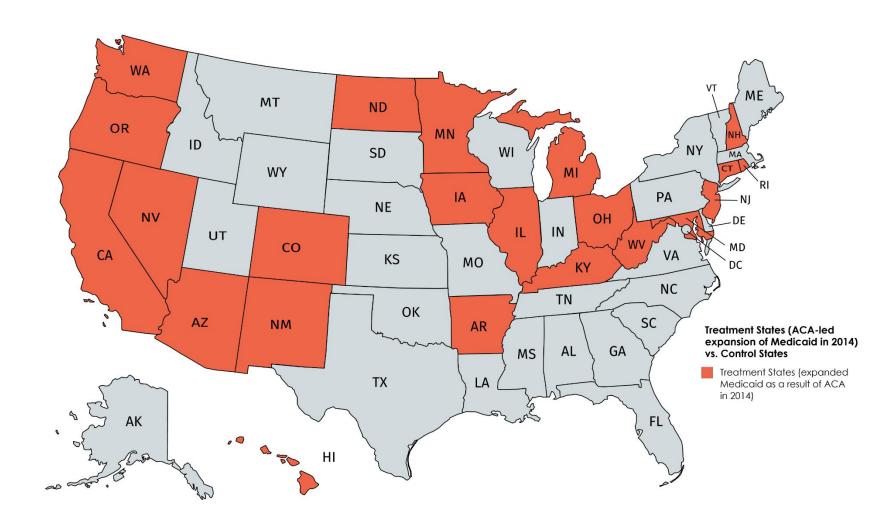
Demographic	
Variable	Mean
Years of Schooling	9.38
Command of English	2.96
Female	0.25
Married	0.53
Children	0.38
Age	37.88
Foreign-born	0.45
Employed by	
Contractor	0.11
Non-farm Employment	0.28
Piece-rate Pay	0.05
Seasonally Employed	0.39
Migrant	0.15

# Summary Statistics: Health Insurance Coverage

<b>Health Insurance</b>		
Coverage	Mean	
Overall (Worker)	0.50	
Paid by the Worker's		
Employer	0.16	
Paid by the Worker	0.08	
Paid by the Worker's Spouse	0.02	
Paid by the Spousal		
Employer	0.05	
Paid by the Government	0.17	
Paid by the Worker's Parents	0.04	
Paid by Other	0.02	
Overall (Worker's Spouse)	0.62	
Overall (Worker's		
Child/Children)	1.00	

- Crop workers could report multiple payers for their health insurance coverage
- The spouses of crop workers had health insurance coverage paid for by the government (38%), the spouse's (28%) and the worker's (19%) employer.
- The children of crop workers had coverage paid for by the government (66%), by the spouse's (13%) and the worker's (12%) employer.

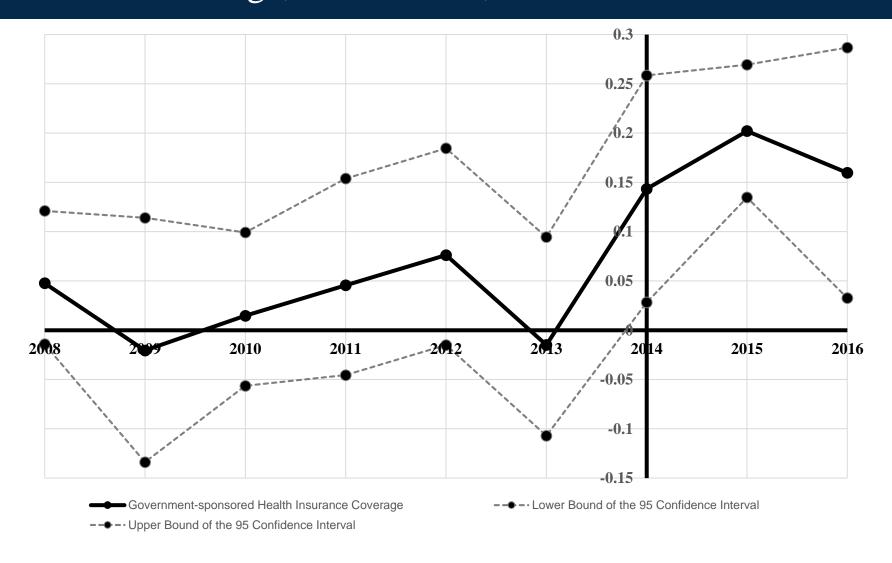
# Policy Experiment: States Expanding Medicaid in 2014



# **Econometric Specification**

- Differences-in-differences approach to compare the change in the outcomes in the Medicaid expansion states to the change in the outcome in the non-expansion states.
- We estimate the following equation:  $Health\_Ins\_Cov_{ist} = \mu_S + \tau_t + \beta(ACA_{Medicaid_S} * Post_t) + \mathbf{Z_{it}}\gamma + \varepsilon_{ist}$
- $Health_Ins_Cov_{ist} = 1$  if farm worker (or family-member) i, in state s, and interviewed in year t has health insurance coverage
- ACA\_Medicaid<sub>s</sub>= 1 if Medicaid eligibility in state s changed as a result of the ACA
- $Post_t$ = 1 in year 2014 and thereafter, i.e. during the post ACA-facilitated Medicaid expansion period
- $\mu_s$  are state-level fixed effects;  $\tau_t$  are year-level fixed effects
- $Z_{it}$  are time-varying, individual-level demographic characteristics

# Analysis of Farm Worker's Government-sponsored Health Insurance Coverage, NAWS data, 2008-2016



#### Results

	Overall HI	Worker's Employer	Spousal Employer	Worker	Spouse	Gov't
$ACA\_Medicaid_s \\ *Post_t$	0.117**	-0.014	-0.009	0.003	0.005	0.147***
	(0.058)	(0.041)	(0.021)	(0.031)	(0.012)	(0.038)
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.220	0.167	0.153	0.136	0.096	0.220
No. Obs.	8,793	8,793	8,793	8,793	8,793	8,793

Note: Robust standard errors clustered by state are reported in parentheses. indicates statistical significance at the 10 percent level;

<sup>\*\*</sup> indicates statistical significance at the 5 percent level; and

<sup>\*\*\*</sup> indicates statistical significance at the 1 percent level.

#### Results and Conclusions

Agricultural workers experienced a 11.7 percentage point increase in the likelihood of having HI coverage – government HI increased by 14.7 percentage points.

No significant reductions in other types of health insurance coverage for agricultural workers.

The likelihood of health care utilization grew by 10 percentage points following the Medicaid expansion.

The number of weekly hours for agricultural workers increased by 14 percent (5.6 hours).

No significant changes in overall health insurance coverage for spouses and children of ag. workers.

#### RTI International





Amy M. G. Kandilov, PhD <a href="mailto:akandilov@rti.org">akandilov@rti.org</a>

Ivan T. Kandilov, PhD <a href="mailto:itkandil@ncsu.edu">itkandil@ncsu.edu</a>