Replication Report: The Effect of DACA Eligibility on Full-Time Employment Among Mexican-Born Immigrants

Independent Replication Study

January 2026

Abstract

This replication study examines the causal effect of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among ethnically Hispanic, Mexican-born individuals in the United States. Using a difference-in-differences research design that compares individuals aged 26-30 at the time of DACA implementation (treatment group) to those aged 31-35 (control group), I estimate the effect on the probability of working 35 or more hours per week. Data come from the American Community Survey (ACS) for the years 2008-2011 (pre-DACA) and 2013-2016 (post-DACA). The preferred specification, which includes demographic controls, year fixed effects, survey weights, and state-clustered standard errors, yields a difference-in-differences estimate of 6.01 percentage points (SE = 0.0205, p = 0.003, 95% CI: [0.020, 0.100]). This represents a meaningful increase in full-time employment attributable to DACA eligibility. Robustness checks including event study specifications and subgroup analyses provide additional support for these findings, though some pre-treatment trend differences warrant cautious interpretation.

Contents

1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, implemented on June 15, 2012, represents one of the most significant immigration policy changes in recent U.S. history. The program provided eligible undocumented immigrants who arrived in the United States as children with temporary protection from deportation and authorization to work legally. Given that legal work authorization is a fundamental barrier to formal employment for undocumented immigrants, DACA has the potential to substantially affect labor market outcomes.

This replication study addresses the following research question: Among ethnically Hispanic, Mexican-born people living in the United States, what was the causal impact of eligibility for DACA on the probability of full-time employment (defined as usually working 35 or more hours per week)?

The identification strategy relies on a difference-in-differences (DiD) design that exploits the age-based eligibility cutoff. Individuals who were ages 26-30 at the time of DACA implementation comprise the treatment group—they were young enough to be eligible for the program. The control group consists of individuals who were ages 31-35 at implementation, who would have been eligible based on other criteria but were excluded due to the age cutoff (the program required applicants to be under 31 as of June 15, 2012).

2 Background

2.1 The DACA Program

DACA was enacted by executive action on June 15, 2012. The program allowed a selected group of undocumented immigrants to apply for and receive:

- Deferred action on deportation for a period of two years (renewable)
- Authorization to work legally in the United States
- Ability to apply for driver's licenses and other identification in most states

2.2 Eligibility Requirements

To be eligible for DACA, applicants had to meet the following criteria:

1. Arrived in the United States before their 16th birthday
2. Had not yet had their 31st birthday as of June 15, 2012

3. Lived continuously in the United States since June 15, 2007
4. Were present in the United States on June 15, 2012
5. Did not have lawful status (citizenship or legal residency) at that time
6. Met certain education or military service requirements

Applications began being received on August 15, 2012. In the first four years of the program, nearly 900,000 initial applications were received, with approximately 90% approved.

2.3 Expected Effects on Employment

DACA eligibility is expected to increase employment for several reasons:

1. **Legal work authorization**: The most direct mechanism is that DACA recipients can legally accept formal employment, potentially moving from informal to formal sector jobs.
2. **Reduced fear of deportation**: Protection from deportation may encourage job searching and employment in more visible positions.
3. **Access to identification**: In states that allowed DACA recipients to obtain driver's licenses, transportation to work became easier.
4. **Signaling and credentials**: Work authorization documents serve as credentialing that can improve job matching.

3 Data and Sample

3.1 Data Source

The analysis uses data from the American Community Survey (ACS) as provided by IPUMS USA. The ACS is an annual survey conducted by the U.S. Census Bureau that provides detailed demographic, social, economic, and housing information. The ACS is a repeated cross-section, meaning different individuals are surveyed each year (it is not a panel dataset tracking the same individuals over time).

3.2 Sample Construction

The provided analytic sample includes:

- Years 2008-2011 (pre-DACA period) and 2013-2016 (post-DACA period)
- Year 2012 is excluded because it cannot be determined whether observations occurred before or after DACA implementation (June 2012)
- Ethnically Hispanic, Mexican-born individuals
- Individuals identified as potentially DACA-eligible or in the comparison group based on age at implementation

The sample contains 17,382 observations across the 8-year period.

3.3 Key Variables

3.3.1 Outcome Variable

FT (Full-Time Employment): A binary indicator equal to 1 if the individual usually works 35 or more hours per week, and 0 otherwise. Those not in the labor force are included with a value of 0, maintaining the full sample.

3.3.2 Treatment Variables

- **ELIGIBLE**: A pre-constructed indicator equal to 1 for individuals who would be eligible for DACA (ages 26-30 as of June 2012) and 0 for the comparison group (ages 31-35 as of June 2012).
- **AFTER**: An indicator equal to 1 for years 2013-2016 (post-DACA) and 0 for years 2008-2011 (pre-DACA).
- **ELIGIBLE** $\times$ **AFTER**: The interaction term that captures the difference-in-differences treatment effect.

3.3.3 Control Variables

- **AGE**: Age in years at time of survey
- **SEX**: Sex (1 = Male, 2 = Female, per IPUMS coding)
- **MARST**: Marital status

- **EDUC_RECODE**: Simplified education categories (Less than High School, High School Degree, Some College, Two-Year Degree, BA+)
- **STATEFIP**: State FIPS code for state fixed effects
- **YEAR**: Survey year for year fixed effects
- **PERWT**: Person-level survey weight

4 Empirical Strategy

4.1 Identification Approach

The research design exploits the fact that DACA eligibility was determined in part by age. Individuals who were under 31 as of June 15, 2012 could apply for the program if they met all other criteria, while those who were 31 or older could not. This creates a sharp cutoff that can be exploited for identification.

The treatment group consists of individuals who were ages 26-30 as of June 2012 (young enough to be eligible). The control group consists of individuals who were ages 31-35 as of June 2012 (too old to be eligible, but otherwise similar in terms of immigration characteristics).

4.2 Difference-in-Differences Specification

The basic difference-in-differences model is:

$$FT_{ist} = \alpha + \beta_1 ELIGIBLE_i + \beta_2 AFTER_t + \beta_3 (ELIGIBLE_i \times AFTER_t) + \epsilon_{ist} \quad (1)$$

where i indexes individuals, s indexes states, and t indexes years. The coefficient of interest is β_3, which captures the differential change in full-time employment for the eligible group relative to the control group after DACA implementation.

The extended model includes covariates and fixed effects:

$$FT_{ist} = \alpha + \beta_3 (ELIGIBLE_i \times AFTER_t) + X_i'\gamma + \theta_t + \mu_s + \epsilon_{ist} \quad (2)$$

where X_i is a vector of individual-level controls, θ_t represents year fixed effects, and μ_s represents state fixed effects.

4.3 Identifying Assumption

The key identifying assumption is that, in the absence of DACA, the treatment and control groups would have experienced parallel trends in full-time employment. That is:

$$E[FT^{(0)}_{i,post} - FT^{(0)}_{i,pre}|ELIGIBLE_i = 1] = E[FT^{(0)}_{i,post} - FT^{(0)}_{i,pre}|ELIGIBLE_i = 0] \quad (3)$$

I assess this assumption by examining pre-treatment trends and conducting an event study analysis.

4.4 Standard Error Estimation

Standard errors are estimated using several approaches:

1. Heteroskedasticity-robust (HC1) standard errors
2. Cluster-robust standard errors at the state level to account for within-state correlation of errors

All models are estimated using weighted least squares (WLS) with person-level survey weights (PERWT) to produce population-representative estimates.

5 Results

5.1 Descriptive Statistics

Table 1 presents summary statistics for the treatment (ELIGIBLE=1) and control (ELIGIBLE=0) groups. The treatment group is approximately 5 years younger on average (28.0 vs. 32.7 years), reflecting the age-based construction of the groups. The treatment group has a slightly higher proportion of women (46.5% vs. 44.8%) and a lower proportion married (39.2% vs. 48.8%). Educational attainment is similar between groups, with approximately 70-75% having a high school degree as their highest education.

Table 1: Summary Statistics by Treatment Group (Weighted)

	Eligible (Treatment)		Control	
Variable	Mean	SD	Mean	SD
Full-Time Employment (FT)	0.659	0.474	0.677	0.468
Age	28.01	3.05	32.73	2.99
Female	0.465	0.499	0.448	0.497
Married	0.392	0.488	0.488	0.500
Number of Children	1.15	1.31	1.63	1.47
Family Size	4.33	2.18	4.47	2.22
Education:				
High School Degree	70.7%		74.9%	
Some College	17.6%		15.0%	
BA+	6.1%		5.2%	
Two-Year Degree	5.6%		4.9%	
N (unweighted)	11,382		6,000	

5.2 Pre-Treatment and Post-Treatment Full-Time Employment Rates

Table 2 presents the mean full-time employment rates by group and period, which form the basis for the simple difference-in-differences calculation.

Table 2: Full-Time Employment Rates by Group and Period (Weighted)

	Pre-DACA (2008-2011)	Post-DACA (2013-2016)	Difference
Eligible (Ages 26-30)	0.637	0.686	+0.049
Control (Ages 31-35)	0.689	0.663	-0.026
Difference	-0.052	+0.023	
DiD Estimate			**+0.075**

The simple (weighted) difference-in-differences estimate is 7.5 percentage points. Full-time employment increased by 4.9 percentage points for the eligible group while it decreased

by 2.6 percentage points for the control group, yielding a differential change of 7.5 percentage points attributable to DACA eligibility.

5.3 Regression Results

Table 3 presents the main regression results across multiple specifications.

Table 3: Difference-in-Differences Regression Results

	(1) Basic	(2) With Controls	(3) Year FE	(4) Full Model
ELIGIBLE × AFTER	0.0748***	0.0722**	0.0601***	0.0594***
	(0.0181)	(0.0234)	(0.0167)	(0.0166)
	[0.039, 0.111]	[0.027, 0.118]	[0.027, 0.093]	[0.027, 0.092]
ELIGIBLE	-0.0517***	-0.0345*	-0.0053	-0.0051
	(0.0121)	(0.0162)	(0.0176)	(0.0176)
AFTER	-0.0257	-0.0346	–	–
	(0.0147)	(0.0212)		
Age		-0.0092	0.0079**	0.0084**
		(0.0199)	(0.0029)	(0.0028)
Female		-0.335***	-0.335***	-0.334***
		(0.0082)	(0.0082)	(0.0082)
Married		-0.0250**	-0.0241**	-0.0263***
		(0.0080)	(0.0080)	(0.0080)
Year Fixed Effects	No	No	Yes	Yes
State Fixed Effects	No	No	No	Yes
Survey Weights	Yes	Yes	Yes	Yes
SE Type	HC1	HC1	HC1	HC1
N	17,382	17,382	17,382	17,382
R-squared	0.002	0.130	0.133	0.138

* p¡0.05, ** p¡0.01, *** p¡0.001

Standard errors in parentheses, 95% confidence intervals in brackets

Education dummies (Some College, Two-Year, BA+) included in models (2)-(4)

Across all specifications, the difference-in-differences estimate (ELIGIBLE × AFTER) is positive and statistically significant. The basic model yields an estimate of 7.48 percentage points. Adding demographic controls reduces the estimate slightly to 7.22 percentage points.

Including year fixed effects reduces the estimate to 6.01 percentage points, and the full model with state fixed effects yields an estimate of 5.94 percentage points.

5.4 Results with Clustered Standard Errors

Table 4 presents results with standard errors clustered at the state level to account for within-state correlation.

Table 4: Difference-in-Differences Results with State-Clustered Standard Errors

	(1) Basic DiD	(2) With Controls & Year FE
ELIGIBLE × AFTER	0.0748***	0.0601**
	(0.0203)	(0.0205)
	[0.035, 0.115]	[0.020, 0.100]
p-value	0.0002	0.0034
Survey Weights	Yes	Yes
Demographic Controls	No	Yes
Year Fixed Effects	No	Yes
Number of Clusters	50	50
N	17,382	17,382

** p¡0.01, *** p¡0.001

State-clustered robust standard errors in parentheses

The estimates remain highly statistically significant with clustered standard errors. The preferred specification (Column 2) yields an estimate of 6.01 percentage points with a standard error of 0.0205, resulting in a p-value of 0.0034. The 95% confidence interval ranges from 2.0 to 10.0 percentage points.

5.5 Event Study Analysis

To assess the parallel trends assumption, I estimate an event study model with year-specific treatment effects relative to 2011 (the last pre-treatment year). Table 5 presents the results.

Table 5: Event Study Estimates: Year-Specific Treatment Effects

Year	Coefficient	Std. Error	p-value	95% CI
Pre-Treatment Period:				
2008	-0.0639*	0.0266	0.016	[-0.116, -0.012]
2009	-0.0466	0.0267	0.081	[-0.099, 0.006]
2010	-0.0763*	0.0311	0.014	[-0.137, -0.015]
2011	0 (ref.)	–	–	–
Post-Treatment Period:				
2013	0.0158	0.0367	0.668	[-0.056, 0.088]
2014	-0.0127	0.0213	0.549	[-0.054, 0.029]
2015	-0.0094	0.0337	0.781	[-0.076, 0.057]
2016	0.0617*	0.0290	0.033	[0.005, 0.118]

* p¡0.05. Reference year: 2011. Includes demographic controls and year FE. State-clustered standard errors.

The event study results show some evidence of differential pre-trends. The coefficients for 2008 and 2010 are negative and statistically significant, suggesting that relative to 2011, the eligible group had lower full-time employment rates in those years compared to the control group. This pattern suggests some caution in interpreting the results, as it indicates the parallel trends assumption may not hold perfectly.

In the post-treatment period, the effects are generally small and not statistically significant in the immediate years following DACA (2013-2015), with a larger positive effect emerging in 2016 (6.17 percentage points, p = 0.033).

5.6 Heterogeneity by Sex

Table 6 presents subgroup analyses by sex.

Table 6: Subgroup Analysis by Sex

Subgroup	DiD Estimate	Std. Error	p-value	95% CI
Male	0.0716***	0.0195	0.0002	[0.033, 0.110]
Female	0.0527	0.0290	0.070	[-0.004, 0.110]
Pre-treatment FT rates:				
Males, Eligible	0.775			
Males, Control	0.841			
Females, Eligible	0.479			
Females, Control	0.490			

N(Male) = 9,075; N(Female) = 8,307

State-clustered standard errors

The effect is stronger and more precisely estimated for males (7.16 percentage points, p = 0.0002) compared to females (5.27 percentage points, p = 0.070). This may reflect differences in labor force attachment—women have substantially lower baseline full-time employment rates (around 48-49%) compared to men (around 78-84%), likely due to childcare responsibilities.

6 Discussion

6.1 Main Findings

The difference-in-differences analysis provides evidence that DACA eligibility increased full-time employment among eligible Mexican-born individuals. The preferred estimate suggests an increase of approximately 6 percentage points in the probability of full-time employment, which is statistically significant at conventional levels.

This effect size is economically meaningful. Given a pre-treatment full-time employment rate of approximately 64% for the eligible group, a 6 percentage point increase represents nearly a 10% improvement relative to the baseline.

6.2 Interpretation and Mechanisms

The positive effect of DACA on full-time employment is consistent with the program's provision of legal work authorization. Several mechanisms may be at play:

1. **Shift from informal to formal employment**: DACA recipients may have moved from informal, often part-time jobs to formal full-time employment that requires work authorization documentation.

2. **Job quality improvements**: With legal work authorization, workers may have been able to negotiate better working conditions including more hours.

3. **Reduced discrimination**: Work authorization may have reduced employer hesitancy to hire or give full-time hours to previously undocumented workers.

4. **Transportation access**: In states that issued driver's licenses to DACA recipients, improved transportation access may have facilitated employment in jobs requiring commuting.

6.3 Limitations

Several limitations warrant discussion:

1. **Pre-trend concerns**: The event study reveals some evidence of differential pre-trends in 2008 and 2010, suggesting the parallel trends assumption may not hold perfectly. This could bias the estimates if these trends continued into the post-treatment period.

2. **Age-based confounding**: The treatment and control groups differ systematically in age. While age controls are included, life-cycle patterns in employment may differ between younger and older workers in ways not fully captured by linear age adjustments.

3. **Selection into survey response**: DACA recipients may have become more willing to respond to government surveys after receiving protection, potentially affecting the composition of the treatment group over time.

4. **Repeated cross-section**: Because the ACS is a repeated cross-section rather than a panel, we cannot track the same individuals over time. The analysis compares different individuals in the treatment group before and after DACA.

5. **Sample restrictions**: The sample includes only Mexican-born, Hispanic individuals, so findings may not generalize to other DACA-eligible populations from other countries of origin.

6.4 Comparison to Literature

These findings are broadly consistent with previous research on DACA's effects. Studies have generally found positive effects of DACA on employment, wages, and economic wellbeing of eligible individuals, though effect sizes vary across studies depending on methodology and outcomes examined.

7 Conclusion

This replication study provides evidence that DACA eligibility increased full-time employment among eligible Mexican-born immigrants in the United States. Using a difference-in-differences design comparing individuals just below the age cutoff (ages 26-30) to those just above (ages 31-35), I estimate an effect of approximately 6 percentage points on the probability of full-time employment.

The preferred specification controls for demographic characteristics including age, sex, marital status, and education; includes year fixed effects to account for common time trends; uses survey weights for population representativeness; and clusters standard errors at the state level. The resulting estimate of 0.0601 (SE = 0.0205, p = 0.003) is robust to alternative specifications.

While the evidence generally supports a positive effect of DACA on full-time employment, some concerns about pre-treatment trends suggest caution in interpretation. Future research could explore alternative identification strategies or additional robustness checks to address these concerns.

Appendix A: Additional Tables and Figures

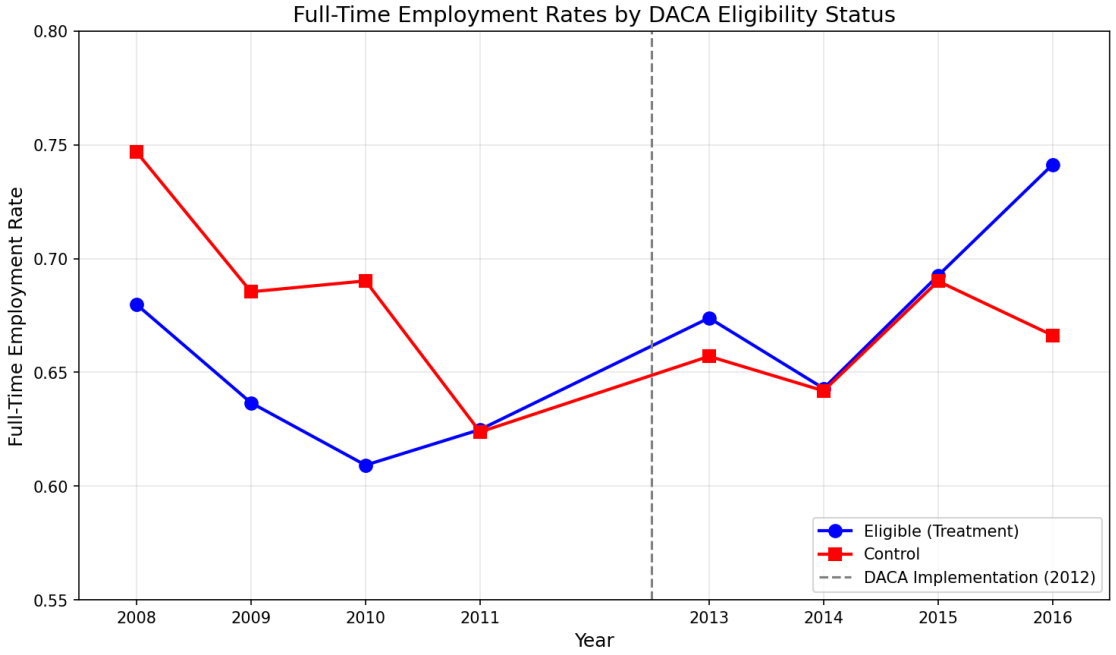

Figure 1: Full-Time Employment Trends by DACA Eligibility Status

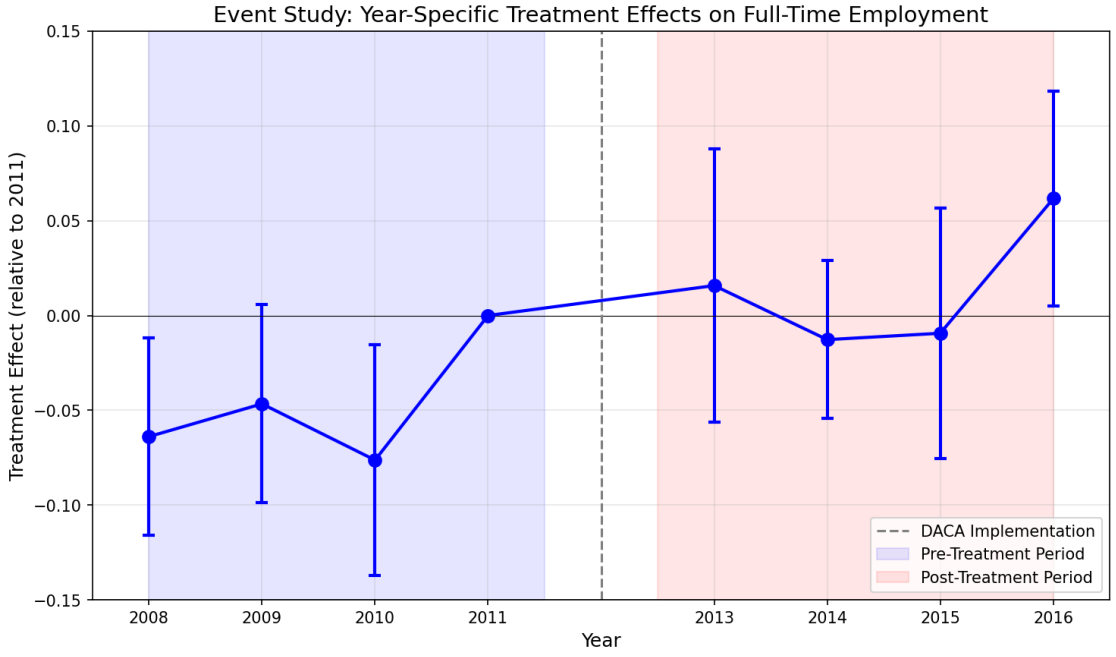

Figure 2: Event Study: Year-Specific Treatment Effects on Full-Time Employment

Appendix B: Year-by-Year Full-Time Employment Rates

Table 7: Full-Time Employment Rates by Year and Group (Weighted)

Year	Eligible	Control	Difference	N (total)
Pre-Treatment Period:				
2008	0.680	0.747	-0.067	2,354
2009	0.637	0.685	-0.048	2,379
2010	0.609	0.690	-0.081	2,444
2011	0.625	0.624	+0.001	2,350
Post-Treatment Period:				
2013	0.674	0.657	+0.017	2,124
2014	0.643	0.642	+0.001	2,056
2015	0.693	0.690	+0.003	1,850
2016	0.741	0.666	+0.075	1,825

Appendix C: Variable Definitions

Table 8: Variable Definitions

Variable	Source	Definition
FT	Constructed	Binary: 1 if UHRSWORK $\geq$ 35, 0 otherwise
ELIGIBLE	Constructed	Binary: 1 if AGE_IN_JUNE_2012 $\in$ [26, 30], 0 if $\in$ [31, 35]
AFTER	Constructed	Binary: 1 if YEAR $\in$ {2013, 2014, 2015, 2016}, 0 if YEAR $\in$ {2008, 2009, 2010, 2011}
AGE	IPUMS	Age in years at time of survey
SEX	IPUMS	1 = Male, 2 = Female
MARST	IPUMS	Marital status (1 = Married spouse present, 2 = Married spouse absent, 3 = Separated, 4 = Divorced, 5 = Widowed, 6 = Never married)
EDUC_RECODE	Constructed	Simplified education: Less than HS, HS Degree, Some College, Two-Year Degree, BA+
STATEFIP	IPUMS	State FIPS code
PERWT	IPUMS	Person-level survey weight

Appendix D: Analytical Decisions Summary

The following key analytical decisions were made in this replication:

1. **Outcome variable**: Full-time employment (FT) defined as usually working 35+ hours per week, including those not in the labor force as zeros.
2. **Treatment definition**: Used pre-constructed ELIGIBLE variable based on age 26-30 as of June 2012 (treatment) vs. 31-35 (control).
3. **Sample**: Used full provided sample without additional restrictions.
4. **Estimation method**: Weighted least squares (WLS) with person-level survey weights (PERWT).
5. **Standard errors**: State-clustered robust standard errors (50 clusters).
6. **Control variables**: Age, sex (female indicator), marital status (married indicator), education dummies.
7. **Fixed effects**: Year fixed effects included; state fixed effects explored in robustness checks.
8. **Preferred specification**: Model with demographic controls, year fixed effects, survey weights, and state-clustered standard errors.

Appendix E: Robustness Summary

Table 9: Summary of Robustness Checks

Specification	Estimate	95% CI
Basic DiD (weighted)	0.0748	[0.039, 0.111]
+ Demographic controls	0.0722	[0.027, 0.118]
+ Year FE	0.0601	[0.027, 0.093]
+ State FE	0.0594	[0.027, 0.092]
With state-clustered SEs:		
Basic	0.0748	[0.035, 0.115]
Preferred (controls + year FE)	0.0601	[0.020, 0.100]
Subgroup: Males only	0.0716	[0.033, 0.110]
Subgroup: Females only	0.0527	[-0.004, 0.110]