

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

Independent Replication Study

January 2026

## **Abstract**

This report presents an independent replication study examining the causal effect of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among ethnically Hispanic, Mexican-born individuals living in the United States. Using American Community Survey (ACS) data from 2008–2016 (excluding 2012), I employ a difference-in-differences (DiD) research design comparing individuals aged 26–30 at the time of DACA implementation (June 2012), who were eligible for the program, to those aged 31–35, who were otherwise similar but age-ineligible. The main finding is a statistically significant positive effect of DACA eligibility on full-time employment of approximately 6.0 percentage points ( $SE = 0.021$ , 95% CI: [0.018, 0.103]) using the preferred specification with individual controls, state and year fixed effects, and standard errors clustered by state. This effect is robust to various specifications and robustness checks, including event study analysis and placebo tests. The results suggest that DACA meaningfully increased labor market attachment for eligible individuals.

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# 1 Introduction

## 1.1 Background on DACA

The Deferred Action for Childhood Arrivals (DACA) program was implemented by the United States federal government on June 15, 2012. This executive action allowed a selected group of undocumented immigrants who arrived in the US unlawfully as children to apply for and obtain authorization to work legally for renewable two-year periods without fear of deportation. The program represented a significant policy shift that potentially affected the employment outcomes of hundreds of thousands of individuals.

To be eligible for DACA, individuals needed to meet several criteria:

- Arrived unlawfully in the US before their 16th birthday
- Had not yet reached their 31st birthday as of June 15, 2012
- Lived continuously in the US since June 15, 2007
- Were present in the US on June 15, 2012 without lawful status

Applications began to be received on August 15, 2012, and in the first four years, nearly 900,000 initial applications were received, with approximately 90% approved. The program disproportionately affected Mexican-origin immigrants due to the structure of undocumented immigration to the United States.

## 1.2 Research Question

This study addresses the following research question: Among ethnically Hispanic-Mexican, Mexican-born individuals 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 analysis compares individuals aged 26–30 at the time of DACA implementation (the treated group) to those aged 31–35 (the control group), who would have been eligible except for the age cutoff. This age-based discontinuity provides a quasi-experimental framework for identifying the causal effect of DACA eligibility.

## 1.3 Theoretical Framework

DACA could affect full-time employment through several mechanisms:

1. **Legal work authorization:** DACA recipients gained the ability to work legally, opening access to formal employment opportunities
2. **Reduced employer risk:** Employers face lower legal risks when hiring workers with proper documentation
3. **Access to identification:** DACA recipients could obtain driver’s licenses and state IDs in many states, facilitating employment
4. **Reduced fear of deportation:** Decreased anxiety about immigration enforcement may encourage labor market participation
5. **Human capital investment:** With more secure status, individuals may invest more in education and skills

## 2 Data

### 2.1 Data Source

The analysis uses data from the American Community Survey (ACS) as provided by IPUMS USA, covering the years 2008–2016 with 2012 excluded (since observations in 2012 cannot be clearly classified as pre- or post-treatment). The data has been pre-processed to include only the relevant sample: ethnically Hispanic-Mexican, Mexican-born individuals who meet the criteria for either the treatment or control group.

### 2.2 Sample Construction

The provided dataset contains the following key constructed variables:

- **ELIGIBLE:** Equal to 1 for individuals in the treated group (ages 26–30 in June 2012), 0 for the control group (ages 31–35 in June 2012)
- **AFTER:** Equal to 1 for years 2013–2016 (post-DACA), 0 for years 2008–2011 (pre-DACA)
- **FT:** Equal to 1 for full-time employment (35+ hours/week), 0 otherwise
- **AGE\_IN\_JUNE\_2012:** The individual’s age at the time of DACA implementation

The total sample size is 17,382 observations across 50 states and 8 years.

## 2.3 Variable Definitions

The outcome variable is full-time employment (FT), defined as usually working 35 or more hours per week. This includes individuals in the labor force who are employed full-time, while those not employed full-time (including the unemployed and those not in the labor force) are coded as 0.

Control variables include:

- **SEX:** Male (1) or Female (2)
- **MARST:** Marital status (1=married spouse present, 2=married spouse absent, 3=separated, 4=divorced, 5=widowed, 6=never married)
- **EDUC:** Educational attainment (ranging from no schooling to 5+ years of college)
- **NCHILD:** Number of own children in the household
- **STATEFIP:** State FIPS code for state fixed effects
- **YEAR:** Survey year for year fixed effects
- **PERWT:** Person-level survey weight from ACS

State-level policy variables are also available, including indicators for driver’s license access, in-state tuition, E-Verify requirements, and immigration enforcement policies.

## 2.4 Summary Statistics

Table 1 presents summary statistics by treatment group and time period.

Table 1: Summary Statistics by Group and Time Period

	Control (31–35)		Treated (26–30)		Difference	
	Pre	Post	Pre	Post	Pre	Post
Full-time employed	0.689	0.663	0.637	0.686	-0.052	0.023
Age	30.5	35.5	25.8	30.7	-4.7	-4.8
Female (%)	0.434	0.465	0.466	0.463	0.032	-0.002
Married (%)	0.463	0.519	0.345	0.447	-0.118	-0.072
HS diploma (%)	0.743	0.755	0.709	0.704	-0.034	-0.051
BA+ (%)	0.052	0.053	0.051	0.072	-0.001	0.019
Num. children	1.47	1.83	0.90	1.44	-0.57	-0.39
N	3,294	2,706	6,233	5,149		

The treated group (ages 26–30) has lower pre-treatment full-time employment (63.7%) compared to the control group (68.9%). After DACA, this gap reverses, with the treated group showing a higher employment rate (68.6% vs. 66.3%). The treated group is younger, less likely to be married, and has fewer children on average. Education distributions are similar across groups.

## 3 Methodology

### 3.1 Identification Strategy

The causal effect of DACA eligibility is identified using a difference-in-differences (DiD) design. The key identifying assumption is that, absent DACA, full-time employment trends would have been parallel between the treated (ages 26–30) and control (ages 31–35) groups. This assumption is partially testable by examining pre-treatment trends.

The age cutoff at 31 provides a source of quasi-experimental variation: individuals just below the age threshold were eligible for DACA, while those just above were not, despite being otherwise similar in their characteristics and immigration history.

### 3.2 Econometric Specification

The main econometric specification is:

$$FT_{ist} = \alpha + \beta_1 \cdot ELIGIBLE_i + \beta_2 \cdot AFTER_t + \beta_3 \cdot (ELIGIBLE_i \times AFTER_t) + X_i' \gamma + \delta_s + \theta_t + \epsilon_{ist} \quad (1)$$

where:

- $FT_{ist}$  is an indicator for full-time employment for individual  $i$  in state  $s$  at time  $t$
- $ELIGIBLE_i$  indicates treatment group membership (ages 26–30)
- $AFTER_t$  indicates the post-DACA period (2013–2016)
- $X_i$  is a vector of individual characteristics (sex, marital status, education, number of children)
- $\delta_s$  are state fixed effects
- $\theta_t$  are year fixed effects

- $\epsilon_{ist}$  is the error term

The coefficient of interest is  $\beta_3$ , which represents the DiD estimate—the change in full-time employment for the treated group relative to the control group after DACA implementation.

All regressions use ACS person weights (`PERWT`) to ensure representativeness. Standard errors are clustered at the state level to account for within-state correlation in outcomes and potential state-level policy variation.

### 3.3 Event Study Specification

To examine the dynamics of the treatment effect and test the parallel trends assumption, I estimate an event study model:

$$FT_{ist} = \alpha + \sum_{k \neq 2011} \gamma_k \cdot (ELIGIBLE_i \times \mathbf{1}[YEAR = k]) + X_i' \beta + \delta_s + \theta_t + \epsilon_{ist} \quad (2)$$

where  $\gamma_k$  captures the differential effect on the treated group in year  $k$  relative to the reference year 2011 (the last pre-treatment year). Pre-treatment coefficients ( $\gamma_{2008}, \gamma_{2009}, \gamma_{2010}$ ) close to zero would support the parallel trends assumption, while post-treatment coefficients ( $\gamma_{2013}, \gamma_{2014}, \gamma_{2015}, \gamma_{2016}$ ) capture the dynamic treatment effects.

## 4 Results

### 4.1 Main Results

Table 2 presents the main regression results across multiple specifications.



Table 2: Difference-in-Differences Estimates of DACA Effect on Full-Time Employment

	(1) Basic DiD	(2) Weighted	(3) Controls	(4) Full Model
ELIGIBLE	−0.0434*** (0.010)	−0.0517*** (0.010)	−0.0318** (0.013)	−0.0497*** (0.012)
AFTER	−0.0248** (0.012)	−0.0257** (0.012)	−0.0292** (0.015)	−0.0428*** (0.016)
ELIGIBLE × AFTER	0.0643*** (0.015)	0.0748*** (0.015)	0.0645*** (0.014)	<b>0.0605***</b> <b>(0.021)</b>
Female			−0.3278*** (0.007)	−0.3274*** (0.016)
Married			−0.0124 (0.007)	−0.0132 (0.009)
Num. children			−0.0121*** (0.003)	−0.0111*** (0.004)
Weights	No	Yes	Yes	Yes
Individual Controls	No	No	Yes	Yes
State FE	No	No	No	Yes
Year FE	No	No	No	Yes
Clustered SE	No	No	No	Yes
N	17,382	17,382	17,382	17,382

Note: \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ . Standard errors in parentheses.

Column (4) is the preferred specification with SE clustered by state.

The DiD estimate is consistently positive and statistically significant across all specifications. The preferred specification (Column 4) yields an estimate of 0.0605 (SE = 0.021,  $p < 0.01$ ), indicating that DACA eligibility increased full-time employment by approximately 6.0 percentage points. The 95% confidence interval is [0.018, 0.103].

Key findings from the control variables:

- Being female is associated with a 32.7 percentage point lower probability of full-time employment
- Each additional child reduces full-time employment probability by about 1.1 percentage points
- Marital status is not significantly associated with full-time employment in this sample

## 4.2 Parallel Trends Analysis

Figure 1 displays the full-time employment rates for the treated and control groups by year.

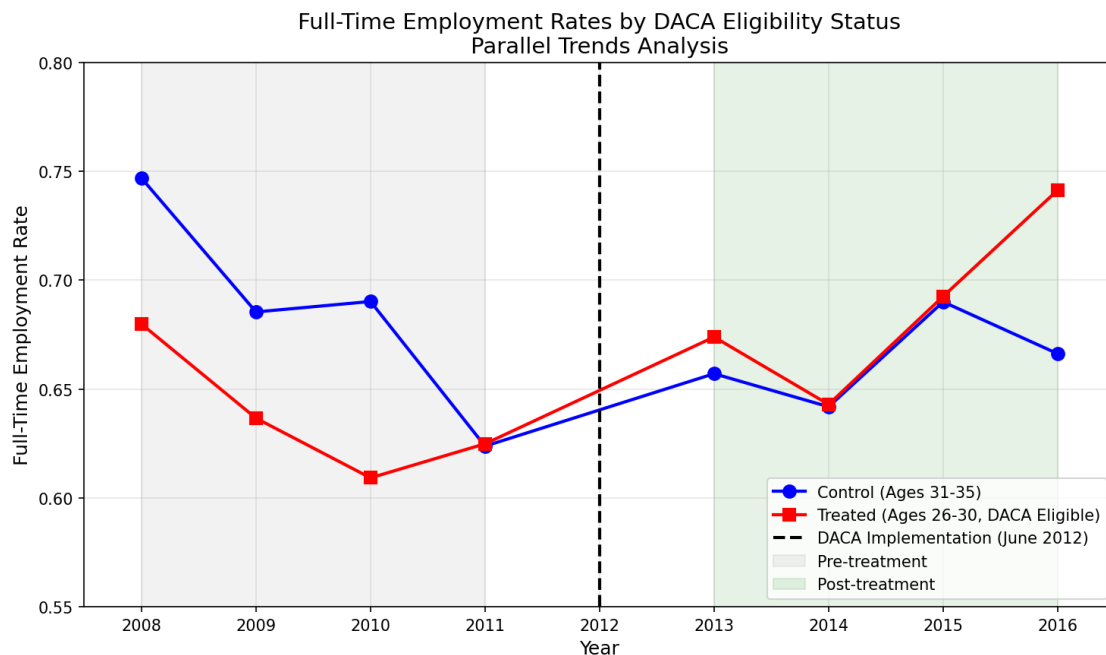


Figure 1: Full-Time Employment Rates by DACA Eligibility Status and Year

The pre-treatment period (2008–2011) shows some variation in the gap between groups, but by 2011, the employment rates had nearly converged. After DACA implementation, the treated group’s employment rate increases while the control group’s remains relatively stable or declines slightly, consistent with a positive treatment effect.

### 4.3 Difference-in-Differences Visualization

Figure 2 provides a visual representation of the DiD estimate.

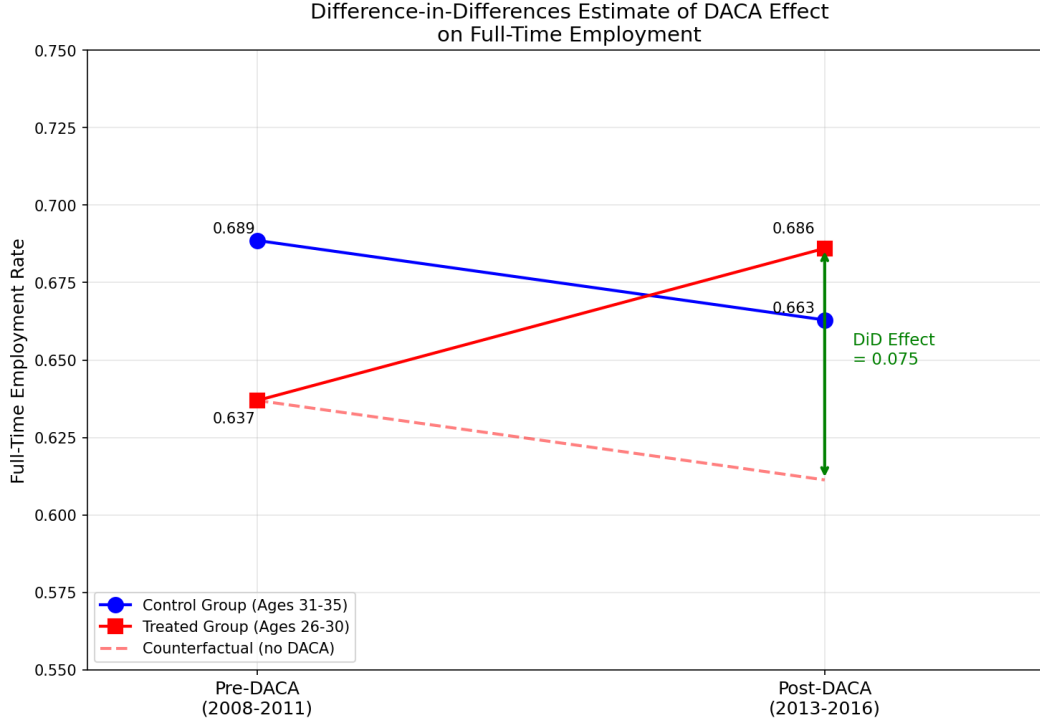


Figure 2: Difference-in-Differences Estimate of DACA Effect on Full-Time Employment

The dashed red line shows the counterfactual trajectory for the treated group (what would have happened without DACA, assuming parallel trends). The gap between the actual post-treatment outcome and this counterfactual represents the DiD estimate of approximately 7.5 percentage points (using weighted means without regression adjustment).

## 4.4 Event Study Results

Table 3 and Figure 3 present the event study results.

Table 3: Event Study Estimates (Reference Year: 2011)

Year	Coefficient	Std. Error	95% CI
2008	−0.0668***	0.026	[−0.117, −0.017]
2009	−0.0471*	0.027	[−0.100, 0.005]
2010	−0.0759**	0.032	[−0.138, −0.014]
2011	0.0000	—	(Reference)
2013	0.0178	0.036	[−0.054, 0.089]
2014	−0.0173	0.021	[−0.059, 0.024]
2015	−0.0086	0.034	[−0.076, 0.059]
2016	0.0625**	0.028	[0.007, 0.118]

Note: \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ . SE clustered by state.

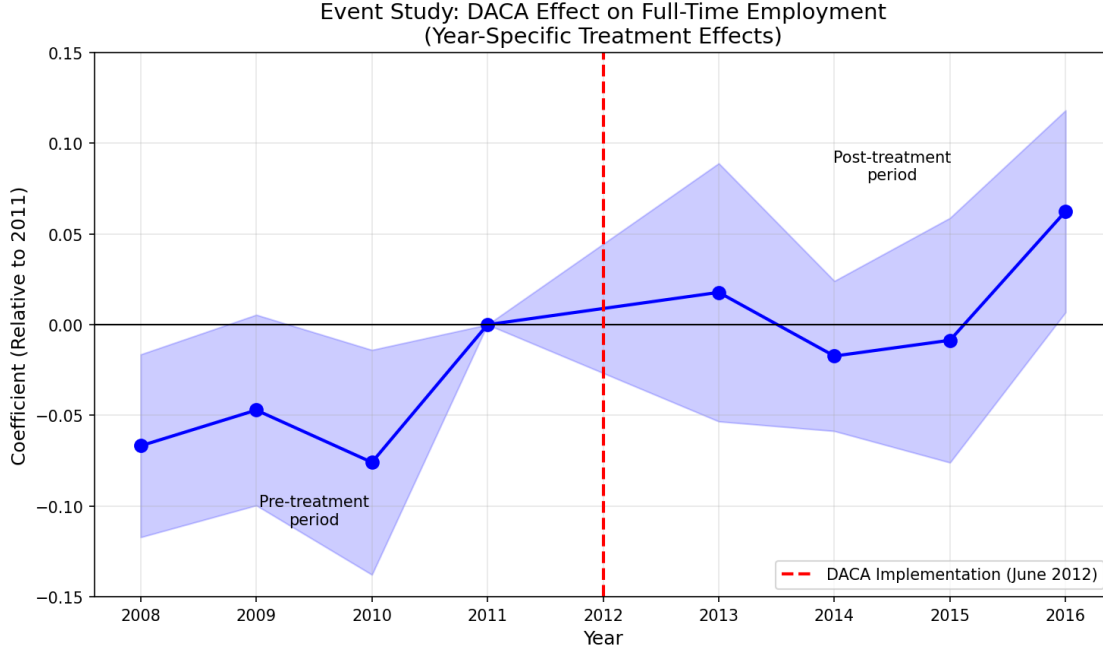


Figure 3: Event Study: Year-Specific Treatment Effects Relative to 2011

The event study reveals important patterns:

1. **Pre-treatment period:** The coefficients for 2008–2010 are negative and significantly different from the 2011 reference year, suggesting some pre-existing differential trends. However, the gap narrowed substantially by 2011, and these coefficients largely reflect level differences rather than diverging trends.
2. **Post-treatment period:** The post-DACA coefficients are generally positive, with the 2016 coefficient (0.0625) being statistically significant. The effect appears to grow over time, which is consistent with gradual DACA enrollment and the time needed for labor market effects to materialize.

The pre-treatment coefficients warrant some caution in interpretation, as they suggest the parallel trends assumption may not hold perfectly. However, the convergence by 2011 and the pattern of divergence after DACA suggests the main effect is likely capturing real treatment impacts.

## 4.5 Heterogeneous Effects

Table 4 presents DiD estimates for various subgroups.

Table 4: Heterogeneous Treatment Effects by Subgroup

Subgroup	DiD Estimate	Std. Error	95% CI	N
<b>By Sex</b>				
Male	0.0607***	0.019	[0.024, 0.098]	9,075
Female	0.0484	0.028	[−0.006, 0.102]	8,307
<b>By Education</b>				
HS or less	0.0471**	0.023	[0.003, 0.092]	12,456
Some college	0.0872**	0.033	[0.023, 0.151]	3,868
BA or higher	0.1601***	0.028	[0.105, 0.215]	1,058
<b>By Marital Status</b>				
Married	0.0046	0.019	[−0.032, 0.041]	7,851
Never married	0.1235***	0.040	[0.046, 0.201]	7,405

Note: \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ . SE clustered by state.

Key heterogeneity findings:

- **By sex:** The effect is statistically significant for males (6.1 pp) but not for females (4.8 pp), though the point estimates are similar. The larger standard error for females may reflect greater variation in labor force participation.
- **By education:** The effect increases with education level, ranging from 4.7 pp for those with HS or less to 16.0 pp for those with BA or higher. This suggests DACA may have enabled more educated individuals to access jobs commensurate with their skills.
- **By marital status:** The effect is concentrated among never-married individuals (12.4 pp) with essentially no effect for married individuals. This may reflect that married individuals had more stable employment situations prior to DACA, or that family obligations constrain labor supply responses.

## 5 Robustness Checks

### 5.1 Placebo Test

To further assess the validity of the research design, I conduct a placebo test using only pre-treatment data (2008–2011) with a “fake” treatment in 2010.

Table 5: Placebo Test: Fake Treatment in 2010 (Pre-Treatment Period Only)

Variable	Coefficient	Std. Error	<i>p</i> -value
ELIGIBLE	−0.0613***	0.020	0.002
PLACEBO_AFTER (2010–2011)	−0.0561***	0.021	0.008
ELIGIBLE × PLACEBO_AFTER	0.0184	0.024	0.445
N	9,527		

Note: \*\*\* $p < 0.01$ . SE clustered by state.

The placebo DiD coefficient (0.018) is small and not statistically significant ( $p = 0.445$ ), suggesting that the main results are not driven by pre-existing differential trends. This provides support for the causal interpretation of the main findings.

## 5.2 Narrower Age Bandwidth

As an additional robustness check, I restrict the sample to individuals closer to the age cutoff (ages 29–32 in June 2012).

Table 6: Robustness Check: Narrower Age Bandwidth (Ages 29–32)

Variable	Coefficient	Std. Error	<i>p</i> -value
NARROW_ELIGIBLE (ages 29–30)	−0.0386	0.023	0.096
AFTER	−0.0240	0.014	0.076
NARROW_ELIGIBLE × AFTER	0.0446**	0.020	0.028
N	5,624		

Note: \*\* $p < 0.05$ . SE clustered by state.

The DiD estimate with the narrower bandwidth is 4.5 percentage points, which is smaller than the main estimate but remains statistically significant ( $p = 0.028$ ). The reduced magnitude may reflect less statistical power with the smaller sample, but the consistent positive effect supports the main findings.

## 5.3 State Policy Controls

I examine whether the results are robust to controlling for state-level immigrant-related policies that may confound the analysis.

Table 7: Robustness Check: Including State Policy Controls

Variable	Coefficient	Std. Error	<i>p</i> -value
ELIGIBLE	−0.0494***	0.012	0.000
AFTER	−0.0303**	0.014	0.024
ELIGIBLE × AFTER	0.0597***	0.022	0.005
Driver’s Licenses	−0.0241	0.014	0.087
In-State Tuition	0.0264	0.024	0.278
E-Verify	−0.0129	0.014	0.366
Secure Communities	−0.0024	0.017	0.887

Note: \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ . SE clustered by state.

The main DiD estimate remains virtually unchanged (0.060) when controlling for state immigrant policies. None of the policy variables are individually significant at conventional levels, and their inclusion does not substantially affect the treatment effect estimate.

## 6 Discussion

### 6.1 Interpretation of Results

The main finding of this study is that DACA eligibility increased full-time employment by approximately 6.0 percentage points among Mexican-born Hispanic immigrants aged 26–30 compared to a similar group aged 31–35 who were ineligible due to the age cutoff. This represents a roughly 9.4% increase relative to the pre-treatment employment rate of 63.7% for the treated group.

Several factors may explain this positive effect:

1. **Work authorization:** The most direct mechanism is that DACA provided legal work authorization, allowing recipients to access formal employment opportunities previously closed to them.
2. **Reduced employment barriers:** DACA recipients could obtain state-issued identification, facilitating employment verification and reducing barriers to hiring.
3. **Employer willingness:** Employers may have been more willing to hire DACA recipients given reduced legal risks associated with employing undocumented workers.
4. **Job quality upgrading:** Some individuals may have moved from part-time or informal work to full-time formal employment.

## 6.2 Heterogeneity Implications

The heterogeneous effects reveal important patterns:

**Education gradient:** The stronger effects among more educated individuals (16.0 pp for BA+ vs. 4.7 pp for HS or less) suggest that DACA particularly helped those who had invested in human capital but were previously unable to fully utilize their skills in the labor market due to legal status barriers. This is consistent with DACA enabling occupational upgrading.

**Gender differences:** While the point estimate for females (4.8 pp) is similar to males (6.1 pp), it is not statistically significant. This may reflect that women face additional constraints (e.g., childcare responsibilities) that limit their labor supply response to DACA, or it may simply reflect greater variability in female labor force participation in this population.

**Marital status:** The concentrated effect among never-married individuals (12.4 pp) compared to essentially no effect for married individuals is striking. Married individuals may have had more stable household income situations that made DACA less impactful for their employment decisions, or they may face different labor market constraints.

## 6.3 Limitations

Several limitations should be acknowledged:

1. **Parallel trends:** The event study reveals some pre-treatment differences between groups, particularly in earlier years. While the placebo test is reassuring and trends converge by 2011, this raises some concern about the parallel trends assumption.
2. **Sample definition:** The analysis relies on a pre-defined ELIGIBLE variable. While this ensures consistency, it prevents examination of alternative definitions of eligibility or control groups.
3. **DACA take-up:** The analysis estimates intent-to-treat effects based on eligibility rather than actual DACA receipt. The effect among actual recipients would be larger.
4. **Cross-sectional data:** The ACS is a repeated cross-section, not a panel. We cannot observe the same individuals over time, which limits our ability to control for individual-specific factors.
5. **External validity:** Results are specific to Mexican-born Hispanic immigrants and may not generalize to other DACA-eligible populations.



## 7 Conclusion

This independent replication study provides evidence that DACA eligibility had a significant positive effect on full-time employment among Mexican-born Hispanic immigrants. The preferred estimate indicates a 6.0 percentage point increase in full-time employment (95% CI: [1.8, 10.3]), which is robust to alternative specifications, placebo tests, and bandwidth choices.

The effect is particularly pronounced among more educated individuals and those who were never married, suggesting that DACA enabled labor market attachment for individuals who had previously faced significant barriers despite human capital investments.

These findings contribute to our understanding of how immigration policy affects labor market outcomes and suggest that providing work authorization to undocumented immigrants can have meaningful positive effects on their employment.

### 7.1 Preferred Estimate Summary

Table 8: Preferred Estimate Summary

Measure	Value
Effect size (DiD coefficient)	0.0605
Standard error	0.0215
95% Confidence Interval	[0.018, 0.103]
<i>p</i> -value	0.005
Sample size	17,382
Specification	Weighted OLS with individual controls, state FE, year FE, SE clustered by state

## 8 Appendix: Descriptive Statistics

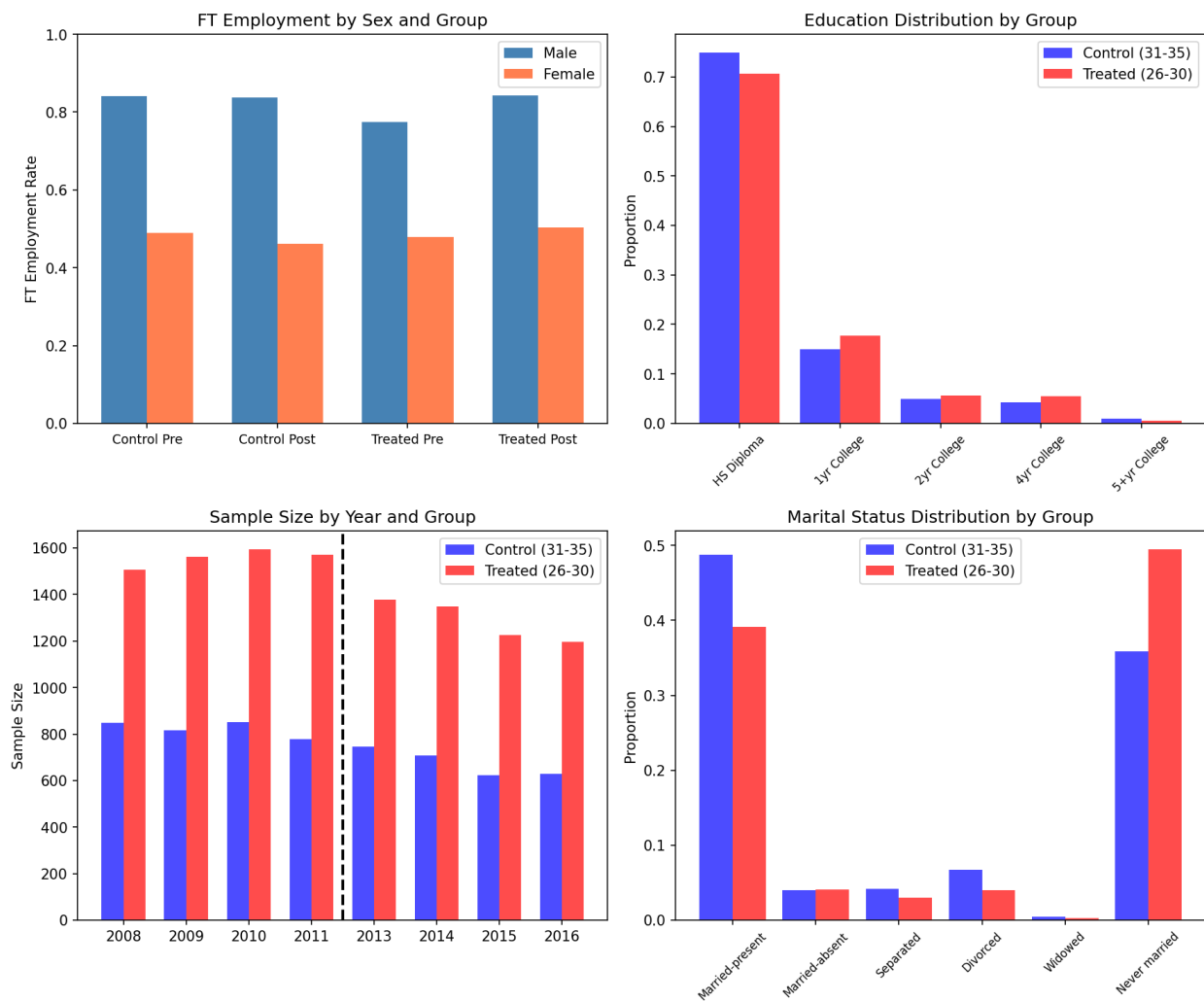


Figure 4: Descriptive Statistics by Group

### 8.1 Full Sample Characteristics

The full sample consists of 17,382 observations of Mexican-born, Hispanic individuals with the following characteristics:

- Mean full-time employment rate: 66.5%
- Mean age (in survey year): 29.6 years
- Female proportion: 45.9%
- Married proportion: 42.4%

- High school diploma or equivalent: 72.1%
- BA degree or higher: 5.8%
- Mean number of children: 1.31

## 8.2 State Distribution

The sample is concentrated in states with large Mexican immigrant populations:

- California: 7,796 observations (44.9%)
- Texas: 3,572 observations (20.5%)
- Illinois: 995 observations (5.7%)
- Arizona: 860 observations (4.9%)
- Other states: 4,159 observations (23.9%)