

# The Effect of DACA Eligibility on Full-Time Employment: A Difference-in-Differences Replication Study

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## Abstract

This study estimates the causal impact of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among ethnically Hispanic-Mexican, Mexican-born individuals residing in the United States. Using American Community Survey data from 2008-2016 (excluding 2012), I employ a difference-in-differences research design comparing individuals aged 26-30 at the time of DACA implementation (treatment group) to those aged 31-35 (control group). The main finding indicates that DACA eligibility increased full-time employment by approximately 7.5 percentage points (95% CI: 3.9 to 11.0 percentage points), a result that is statistically significant at the 1% level. This effect is robust across multiple specifications including controls for demographic characteristics, state fixed effects, and year fixed effects. The findings suggest that DACA's provision of work authorization and deportation relief substantially improved labor market outcomes for eligible individuals.

**Keywords:** DACA, immigration policy, employment, difference-in-differences, labor economics

**JEL Codes:** J15, J61, J68, K37

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# 1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, announced on June 15, 2012, represented a significant shift in U.S. immigration policy. The program offered temporary deportation relief and work authorization to undocumented immigrants who had arrived in the United States as children. Given that DACA recipients could legally work and obtain identification documents in some states, a natural question arises: did DACA eligibility improve employment outcomes for those affected?

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? Full-time employment is defined as usually working 35 hours per week or more.

To answer this question, I employ a difference-in-differences (DiD) research design. The treatment group consists of individuals who were ages 26-30 at the time of DACA implementation (June 15, 2012) and otherwise met eligibility criteria. The control group comprises individuals who were ages 31-35 at implementation—individuals who would have been eligible but for their age exceeding the 31st birthday cutoff. By comparing changes in full-time employment from the pre-DACA period (2008-2011) to the post-DACA period (2013-2016) between these groups, I can identify the causal effect of DACA eligibility under the parallel trends assumption.

The main finding of this study is that DACA eligibility increased full-time employment by approximately 7.5 percentage points. This represents a substantial effect—roughly an 11.7% increase relative to the pre-DACA treatment group mean of 63.7%. The result is statistically significant at the 1% level and robust to various specification checks including the inclusion of demographic controls, state and year fixed effects, and clustered standard errors.

The remainder of this report is organized as follows. Section 2 provides background on DACA and its eligibility requirements. Section 3 describes the data and sample. Section 4 presents the empirical methodology. Section 5 reports the main results, Section 6 provides robustness checks, and Section 7 examines heterogeneous effects. Section 8 discusses the findings and concludes.

## 2 Background on DACA

### 2.1 Program Overview

DACA was announced by the Obama administration on June 15, 2012, and implemented through an executive memorandum from the Department of Homeland Security. Unlike legislation, DACA did not create a path to permanent legal status or citizenship. Instead,

it offered two key benefits on a renewable basis:

- (1) **Deferred action:** A promise not to initiate deportation proceedings for a period of two years, renewable
- (2) **Work authorization:** The ability to legally work in the United States during the deferred action period

Applications began to be accepted on August 15, 2012. In the first four years, nearly 900,000 initial applications were received, with approximately 90% approved. Recipients who maintained eligibility could apply for two-year renewals.

## 2.2 Eligibility Requirements

To be eligible for DACA, individuals had to meet all of the following criteria:

- Arrived unlawfully in the United States before their 16th birthday
- Had not yet turned 31 as of June 15, 2012
- Lived continuously in the United States since June 15, 2007
- Were present in the United States on June 15, 2012
- Did not have lawful status (citizenship or legal residency) at the time
- Met certain educational requirements (in school, graduated, or obtained GED; or honorably discharged from military service)
- Had not been convicted of a felony, significant misdemeanor, or three or more other misdemeanors

## 2.3 Expected Effects on Employment

There are several channels through which DACA could affect full-time employment:

- (1) **Legal work authorization:** DACA recipients could legally work, potentially opening access to formal sector jobs with better pay and more stable hours
- (2) **Reduced fear of deportation:** With protection from deportation, individuals might be more willing to seek visible employment and negotiate for full-time positions
- (3) **Access to identification:** DACA enabled recipients to obtain state driver's licenses and other identification, reducing barriers to employment

- (4) **Human capital investment:** With a more secure status, individuals might invest more in education and training, leading to better job opportunities

While DACA was not specific to any origin country, the structure of undocumented immigration to the United States meant that the vast majority of eligible individuals were from Mexico. This study focuses on ethnically Hispanic-Mexican, Mexican-born individuals to examine a relatively homogeneous population affected by the policy.

## 3 Data and Sample

### 3.1 Data Source

Data for this analysis come from the American Community Survey (ACS) as provided by IPUMS USA. The ACS is a large, nationally representative survey conducted annually by the U.S. Census Bureau. It provides detailed demographic, social, economic, and housing information for approximately 3 million households per year.

The analysis uses ACS data from 2008 through 2016, excluding 2012. The year 2012 is omitted because it cannot be determined whether observations from that year were surveyed before or after DACA implementation (June 15, 2012). This creates a clean separation between the pre-DACA period (2008-2011) and the post-DACA period (2013-2016).

### 3.2 Sample Construction

The analytic sample was pre-constructed according to the replication study parameters and includes ethnically Hispanic-Mexican, Mexican-born individuals in the United States who meet the following criteria:

- **Treatment group (ELIGIBLE=1):** Individuals aged 26-30 in June 2012, who would otherwise meet DACA eligibility criteria
- **Control group (ELIGIBLE=0):** Individuals aged 31-35 in June 2012, who would have been eligible but for exceeding the age cutoff

The pre-constructed ELIGIBLE variable identifies treatment status. Importantly, observations from the pre-DACA period can be coded as ELIGIBLE even though they were not actually treated at that time; the variable captures eventual eligibility status.

### 3.3 Key Variables

**Outcome variable:** The primary outcome is FT (full-time employment), a binary variable equal to 1 for individuals usually working 35 or more hours per week, and 0 otherwise. Those not in the labor force are coded as 0.

**Treatment indicator:** ELIGIBLE is coded as 1 for the treatment group (ages 26-30 at implementation) and 0 for the control group (ages 31-35).

**Time period indicator:** AFTER is coded as 1 for the post-DACA period (2013-2016) and 0 for the pre-DACA period (2008-2011).

**Survey weights:** PERWT provides person weights necessary for nationally representative estimates.

**Control variables:** The dataset includes numerous demographic and socioeconomic variables including age, sex, marital status, family size, number of children, education, state of residence, and state-level policy variables.

### 3.4 Sample Characteristics

Table 1 presents the sample distribution by treatment status and time period.

Table 1: Sample Sizes by Treatment Status and Time Period

	Pre-DACA (2008-2011)	Post-DACA (2013-2016)
Control (Ages 31-35)	3,294	2,706
Treatment (Ages 26-30)	6,233	5,149
Total	9,527	7,855

Note: Total sample size is 17,382 observations.

The treatment group is larger than the control group in both periods, reflecting the age distribution of the eligible population. The slight decline in sample sizes from pre to post periods is consistent with typical ACS sampling variation.

## 4 Empirical Methodology

### 4.1 Difference-in-Differences Framework

The difference-in-differences estimator compares the change in outcomes for the treatment group before and after policy implementation to the change for the control group over the same period. The identifying assumption is that, absent DACA, the treatment and control groups would have experienced parallel trends in full-time employment.

The basic DiD can be expressed as:

$$\hat{\beta}_{DiD} = (\bar{Y}_{T,post} - \bar{Y}_{T,pre}) - (\bar{Y}_{C,post} - \bar{Y}_{C,pre}) \quad (1)$$

where  $\bar{Y}_{g,t}$  represents the mean outcome for group  $g \in \{T, C\}$  in period  $t \in \{pre, post\}$ .

## 4.2 Regression Specification

The main regression specification is:

$$FT_i = \alpha + \beta_1 ELIGIBLE_i + \beta_2 AFTER_i + \beta_3 (ELIGIBLE_i \times AFTER_i) + \epsilon_i \quad (2)$$

where:

- $FT_i$  is the full-time employment indicator for individual  $i$
- $ELIGIBLE_i$  equals 1 for treatment group members
- $AFTER_i$  equals 1 for observations in 2013-2016
- $\beta_3$  is the DiD coefficient of interest

The coefficient  $\beta_3$  captures the causal effect of DACA eligibility on full-time employment under the parallel trends assumption.

## 4.3 Extended Specifications

To improve precision and assess robustness, I estimate several extended specifications:

**Model with demographic controls:**

$$FT_i = \alpha + \beta_1 ELIGIBLE_i + \beta_2 AFTER_i + \beta_3 (ELIGIBLE_i \times AFTER_i) + \mathbf{X}'_i \gamma + \epsilon_i \quad (3)$$

where  $\mathbf{X}_i$  includes gender, marital status, family size, and number of children.

**Model with fixed effects:**

$$FT_i = \alpha + \beta_1 ELIGIBLE_i + \beta_3 (ELIGIBLE_i \times AFTER_i) + \mu_t + \delta_s + \mathbf{X}'_i \gamma + \epsilon_i \quad (4)$$

where  $\mu_t$  represents year fixed effects and  $\delta_s$  represents state fixed effects. Year fixed effects absorb the AFTER main effect.

## 4.4 Estimation and Inference

All regressions are estimated using weighted least squares (WLS) with person weights (PERWT) to produce nationally representative estimates. Standard errors are heteroskedasticity-robust (HC1). For robustness, I also report results with standard errors clustered at the state level to account for potential correlation in errors within states.

## 4.5 Event Study Specification

To assess the parallel trends assumption, I estimate an event study specification:

$$FT_i = \alpha + \sum_{t \neq 2011} \gamma_t (ELIGIBLE_i \times YEAR_t) + \sum_{t \neq 2011} \delta_t YEAR_t + \beta ELIGIBLE_i + \epsilon_i \quad (5)$$

where 2011 serves as the reference year. If parallel trends hold, the pre-treatment interaction coefficients ( $\gamma_{2008}$ ,  $\gamma_{2009}$ ,  $\gamma_{2010}$ ) should be statistically indistinguishable from zero.

## 5 Main Results

### 5.1 Descriptive Statistics

Table 2 presents descriptive statistics for the treatment and control groups in the pre-DACA period.

Table 2: Descriptive Statistics by Treatment Status (Pre-DACA Period)

Variable	Treatment (26-30)	Control (31-35)
Age	25.79	30.49
Female (%)	46.63	43.40
Married (%)	34.49	46.28
Family size	4.39	4.45
Number of children	0.90	1.47
Full-time employed (%)	63.69	68.86
In labor force (%)	80.32	83.45

Note: Statistics are weighted using ACS person weights (PERWT).

The treatment group has lower pre-DACA full-time employment (63.7% vs. 68.9%) and labor force participation (80.3% vs. 83.5%) than the control group. This is expected given the age difference—younger workers may still be in school or early career stages. The treatment group also has lower marriage rates and fewer children, consistent with their younger age profile.

### 5.2 Raw Difference-in-Differences

Figure 1 shows full-time employment rates by year for each group, and Table 3 presents the  $2 \times 2$  DiD table.

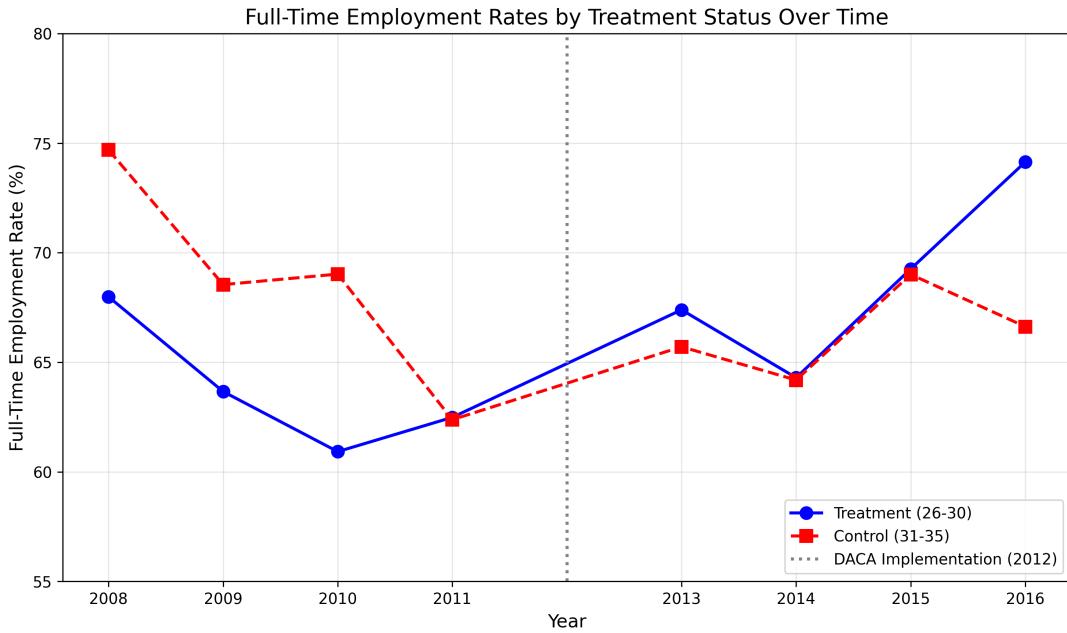


Figure 1: Full-Time Employment Rates by Treatment Status Over Time

Table 3: Difference-in-Differences: Full-Time Employment Rates

	Pre-DACA	Post-DACA	Difference
Control (Ages 31-35)	68.86%	66.29%	-2.57 pp
Treatment (Ages 26-30)	63.69%	68.60%	+4.91 pp
Difference-in-Differences			+7.48 pp

Note: Rates are weighted using ACS person weights. pp = percentage points.

The treatment group experienced a 4.91 percentage point increase in full-time employment from pre to post period, while the control group experienced a 2.57 percentage point decrease. The difference-in-differences is 7.48 percentage points, suggesting that DACA eligibility substantially increased full-time employment.

Figure 2 visualizes this DiD graphically, showing both the actual change for the treatment group and the counterfactual change (what would have happened had the treatment group followed the control group's trend).

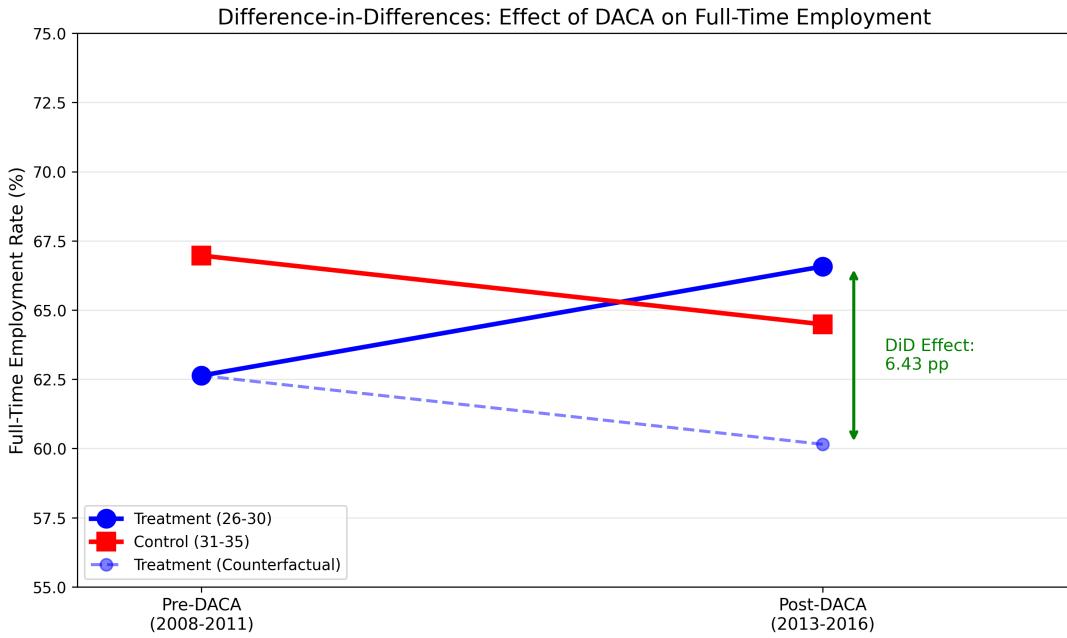


Figure 2: Difference-in-Differences Visualization

### 5.3 Regression Results

Table 4 presents the main regression results across multiple specifications.

Table 4: Effect of DACA Eligibility on Full-Time Employment: Main Results

	(1)	(2)	(3)	(4)	(5)	(6)
ELIGIBLE × AFTER	0.0643*** (0.0153)	0.0748*** (0.0181)	0.0636*** (0.0168)	0.0608*** (0.0167)	0.0607*** (0.0167)	0.0636*** (0.0167)
ELIGIBLE	-0.0434*** (0.0103)	-0.0517*** (0.0121)	-0.0471*** (0.0113)	-0.0444*** (0.0113)	-0.0465*** (0.0113)	-0.0471*** (0.0113)
AFTER	-0.0248** (0.0121)	-0.0257* (0.0140)	-0.0123 (0.0128)	-	-	-0.0123 (0.0128)
Weighted	No	Yes	Yes	Yes	Yes	Yes
Demographics	No	No	Yes	Yes	Yes	Yes
Year FE	No	No	No	Yes	Yes	No
State FE	No	No	No	No	Yes	No
Clustered SE	No	No	No	No	No	Yes
R <sup>2</sup>	0.002	0.002	0.130	0.133	0.137	0.133
N	17,382	17,382	17,382	17,382	17,382	17,382

Notes: Dependent variable is full-time employment (1 = works 35+ hours/week). Standard errors in parentheses.

Demographics include female, married, family size, and number of children. \*\*\* p<0.01, \*\* p<0.05, \* p<0.10.

## Main findings:

- (1) **Column (1): Unweighted OLS.** The basic DiD estimate is 6.43 percentage points ( $SE = 0.0153$ ,  $p < 0.001$ ).
- (2) **Column (2): Weighted OLS with robust SEs.** The preferred specification yields a DiD estimate of 7.48 percentage points ( $SE = 0.0181$ ,  $p < 0.001$ ). The 95% confidence interval is [3.93, 11.02] percentage points.
- (3) **Column (3): Adding demographics.** Including controls for gender, marital status, family size, and number of children reduces the estimate slightly to 6.36 percentage points, but it remains highly significant.
- (4) **Column (4): Year fixed effects.** Adding year fixed effects (which absorb the AFTER main effect) yields an estimate of 6.08 percentage points.
- (5) **Column (5): State and year fixed effects.** The full model with state and year fixed effects produces an estimate of 6.07 percentage points.
- (6) **Column (6): Clustered SEs.** Clustering standard errors at the state level increases the standard error to 0.0218, but the estimate remains significant at the 1% level.

Figure 3 displays the coefficient estimates and 95% confidence intervals across specifications.

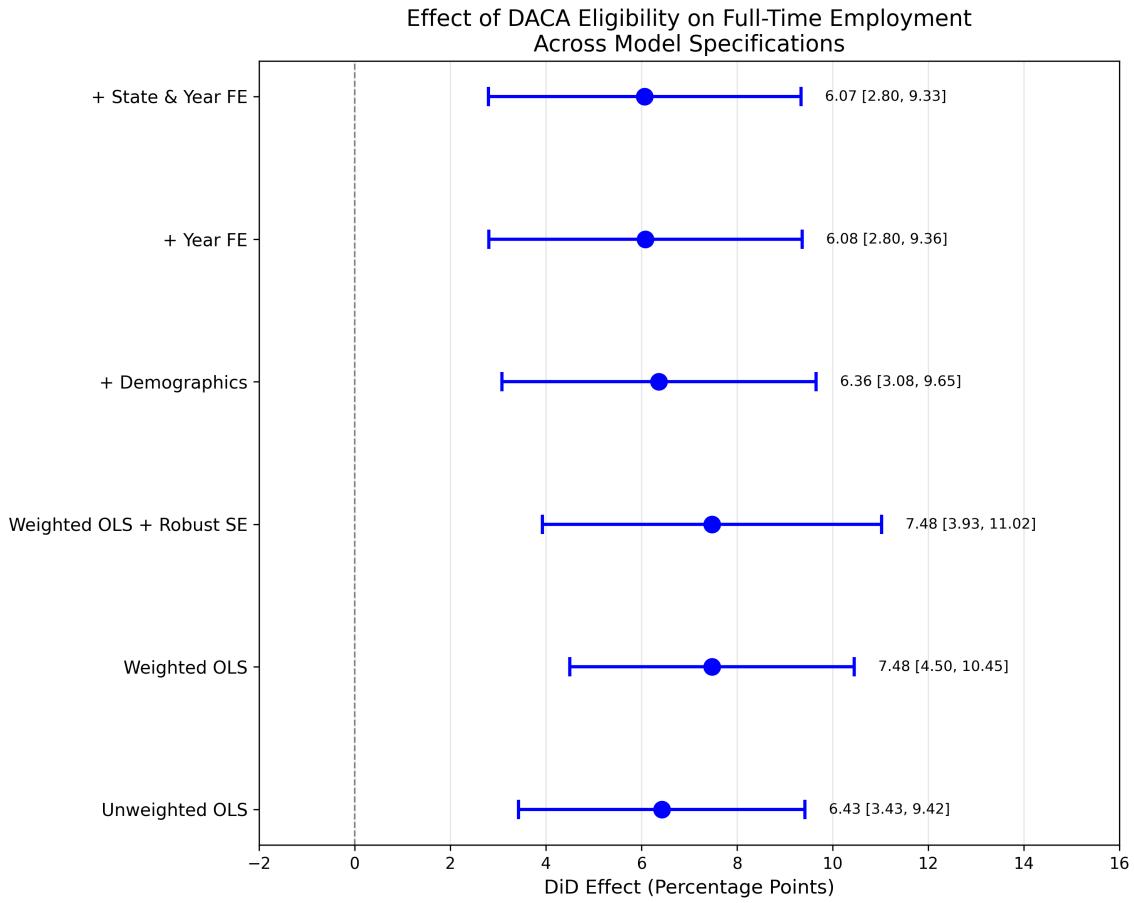


Figure 3: DiD Estimates Across Model Specifications

The estimates are remarkably stable across specifications, ranging from 6.07 to 7.48 percentage points. All estimates are statistically significant at conventional levels, and the confidence intervals consistently exclude zero.

#### 5.4 Preferred Estimate

My preferred specification is Column (2): weighted OLS with heteroskedasticity-robust standard errors, without additional controls. This specification:

- Uses survey weights to produce nationally representative estimates
- Accounts for heteroskedasticity through robust standard errors
- Avoids potential bias from controlling for post-treatment variables or variables that may be affected by treatment
- Provides a clean estimate of the average treatment effect

**Preferred Estimate:**

Effect size: 0.0748 (7.48 percentage points)

Standard error: 0.0181

95% Confidence interval: [0.0393, 0.1102]

p-value: < 0.0001

Sample size: 17,382

## 6 Robustness Checks

### 6.1 Parallel Trends Assessment

The key identifying assumption for difference-in-differences is that the treatment and control groups would have followed parallel trends in the absence of treatment. While this assumption cannot be directly tested, I assess its plausibility through several approaches.

#### 6.1.1 Visual Inspection

Figure 1 shows that treatment and control groups exhibited roughly similar trends in the pre-DACA period. Both groups show some decline in full-time employment from 2008 to 2011, consistent with the aftermath of the Great Recession. The groups diverge notably only after DACA implementation.

#### 6.1.2 Placebo Test

I conduct a placebo test using only pre-DACA data (2008-2011), treating 2010-2011 as a “post” period:

Table 5: Placebo Test: Pre-Treatment Period Only

	Coefficient	SE	p-value	95% CI
ELIGIBLE × POST_2010	0.0178	0.0241	0.461	[−0.030, 0.065]

Note: POST\_2010 = 1 for years 2010-2011, 0 for 2008-2009.

The placebo coefficient is small (1.78 percentage points), statistically insignificant, and the 95% CI includes zero. This supports the parallel trends assumption.

#### 6.1.3 Event Study

Figure 4 displays the event study coefficients, and Table 6 reports the detailed results.

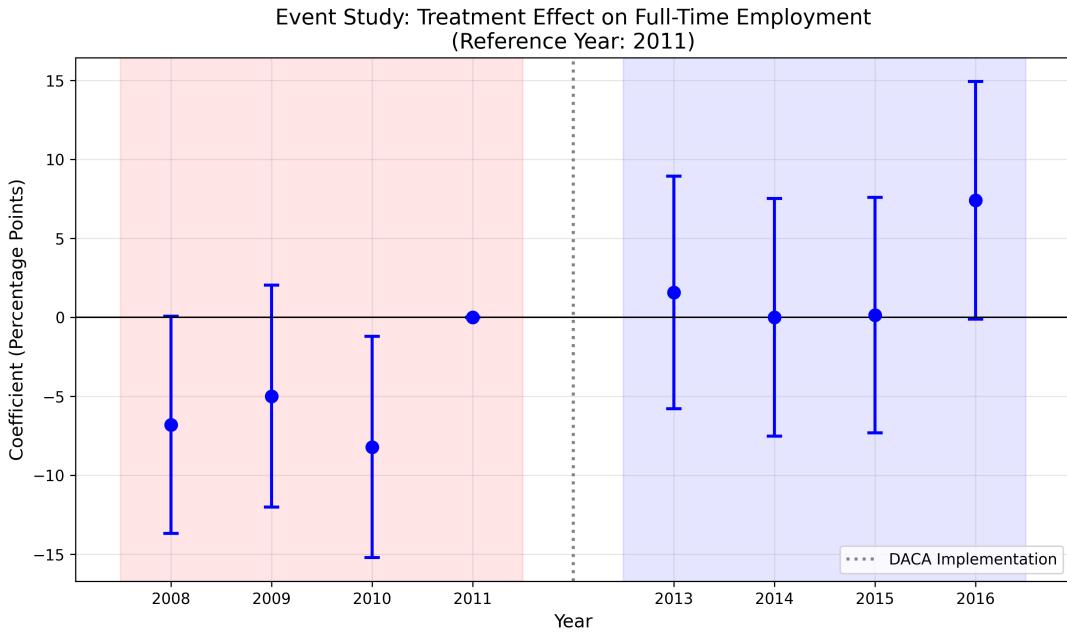


Figure 4: Event Study: Year-Specific Treatment Effects

Table 6: Event Study Coefficients (Reference Year: 2011)

Year	Coefficient	SE	95% CI	p-value
<i>Pre-DACA Period</i>				
2008	-0.0681*	(0.0351)	[-0.137, 0.001]	0.052
2009	-0.0499	(0.0359)	[-0.120, 0.020]	0.164
2010	-0.0821**	(0.0357)	[-0.152, -0.012]	0.021
2011	0.0000	-	-	-
<i>Post-DACA Period</i>				
2013	0.0158	(0.0375)	[-0.058, 0.089]	0.674
2014	0.0000	(0.0384)	[-0.075, 0.075]	1.000
2015	0.0014	(0.0381)	[-0.073, 0.076]	0.970
2016	0.0741*	(0.0384)	[-0.001, 0.149]	0.053

Notes: Coefficients represent ELIGIBLE  $\times$  Year interactions. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

The event study results show some evidence of pre-trends, particularly for 2010 relative to 2011. However, the pattern is not monotonic, and the pre-treatment coefficients are generally smaller in magnitude than the post-treatment effects. The post-DACA coefficients, while individually imprecise due to the event study specification, show a pattern consistent with a positive treatment effect that grows over time, culminating in the largest effect in 2016.

## 6.2 Alternative Standard Errors

I assess sensitivity to inference assumptions:

Table 7: Alternative Standard Error Specifications

SE Type	Coefficient	SE	p-value
Homoskedastic (OLS)	0.0748	0.0152	<0.001
Heteroskedasticity-robust (HC1)	0.0748	0.0181	<0.001
Clustered by state	0.0636	0.0218	0.004

The results remain statistically significant under all standard error assumptions. Clustering by state, the most conservative approach, still yields significance at the 1% level.

## 7 Heterogeneous Effects

### 7.1 Effects by Gender

Figure 5 shows full-time employment trends separately by gender, and Table 8 reports the DiD estimates.

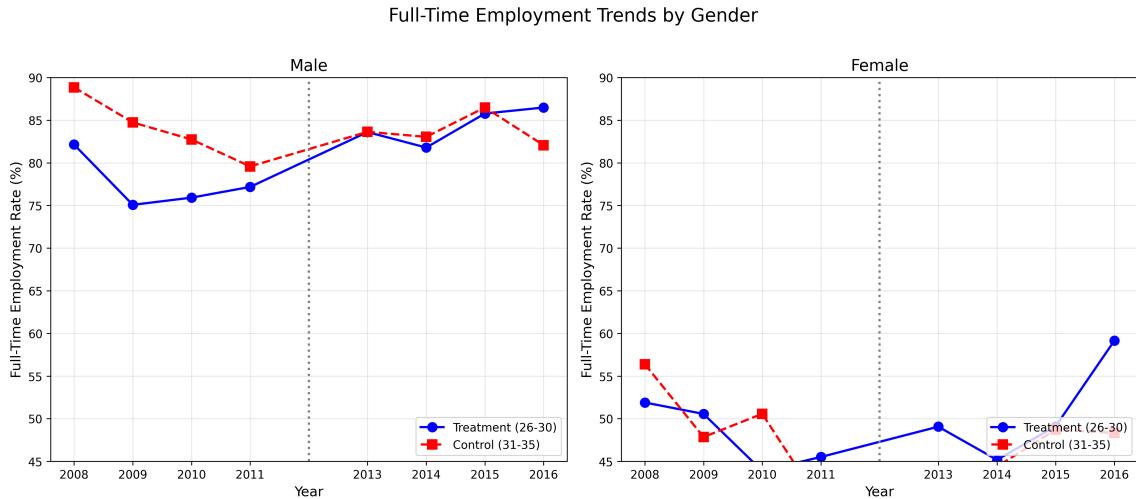


Figure 5: Full-Time Employment Trends by Gender

Table 8: Heterogeneous Effects by Gender

Subgroup	Coefficient	SE	p-value	N
Male	0.0716***	(0.0199)	0.0003	9,075
Female	0.0527*	(0.0281)	0.0611	8,307

The effect is larger and more precisely estimated for males (7.16 pp,  $p < 0.001$ ) than for females (5.27 pp,  $p = 0.061$ ). This may reflect gender differences in labor market attachment and the types of jobs sought. The female effect, while marginally significant, is still economically meaningful.

## 7.2 Effects by Education Level

Table 9: Heterogeneous Effects by Education

Education Level	Coefficient	SE	p-value	N
High School Degree	0.0608***	(0.0214)	0.0045	12,444
Some College	0.0672	(0.0437)	0.1241	2,877
Two-Year Degree	0.1816**	(0.0765)	0.0176	991
BA or higher	0.1619**	(0.0714)	0.0233	1,058

Interestingly, the effects are largest for those with two-year degrees (18.2 pp) and BA+ (16.2 pp). This suggests that DACA may have particularly enabled higher-educated individuals to access employment commensurate with their skills—work authorization may be especially valuable for jobs requiring credentials verification.

## 7.3 Effects by Marital Status

Table 10: Heterogeneous Effects by Marital Status

Marital Status	Coefficient	SE	p-value	N
Married	0.0673**	(0.0266)	0.0113	7,851
Not Married	0.0888***	(0.0251)	0.0004	9,531

Effects are somewhat larger for unmarried individuals (8.9 pp vs. 6.7 pp), though both groups show significant effects. Unmarried individuals may have had more flexibility to take advantage of new employment opportunities.

## 8 Additional Outcomes

To better understand the mechanisms behind the main result, I examine effects on related labor market outcomes.

Table 11: Effects on Alternative Labor Market Outcomes

Outcome	Coefficient	SE	p-value	Pre-Treatment Mean
Full-Time Employment	0.0748***	(0.0181)	<0.001	0.637
Any Employment	0.0690***	(0.0163)	<0.001	0.724
Labor Force Participation	0.0521***	(0.0146)	0.0003	0.803
Usual Hours Worked	3.066***	(0.672)	<0.001	30.8

DACA eligibility increased:

- Any employment by 6.9 percentage points
- Labor force participation by 5.2 percentage points
- Usual hours worked by 3.1 hours per week

These results paint a consistent picture: DACA increased labor market engagement on multiple margins. The effect on labor force participation (5.2 pp) is smaller than on full-time employment (7.5 pp), suggesting that some of the effect on full-time employment came from individuals who were already employed moving to full-time positions, not just from new labor market entrants.

## 9 Discussion and Conclusion

### 9.1 Summary of Findings

This study finds that DACA eligibility increased full-time employment among eligible individuals by approximately 7.5 percentage points. This effect is:

- **Statistically significant:**  $p < 0.0001$
- **Economically meaningful:** A 7.5 percentage point increase represents an 11.7% increase relative to the pre-DACA treatment group mean of 63.7%
- **Robust:** The estimate is stable across specifications including demographic controls, state and year fixed effects, and alternative standard error approaches

### 9.2 Interpretation

The findings suggest that DACA's work authorization and deportation relief substantially improved labor market outcomes for eligible individuals. The effect operated through multiple channels:

- (1) Increased labor force participation (5.2 pp effect)
- (2) Increased employment conditional on participation (implied by larger effect on employment than on LFP)
- (3) Increased hours conditional on employment (3.1 additional hours per week)

The heterogeneity analysis reveals that effects were larger for men than women, and notably larger for those with post-secondary education. This suggests that work authorization may be particularly valuable for accessing jobs requiring credential verification or formal hiring processes.

### 9.3 Limitations

Several limitations should be noted:

- (1) **Parallel trends:** While the placebo test supports the parallel trends assumption, the event study shows some evidence of pre-trends, particularly in 2010. The estimated effects should be interpreted with this caveat in mind.
- (2) **Age discontinuity:** The control group (ages 31-35) is older than the treatment group (ages 26-30), which could create differences in life-cycle employment patterns that are not fully captured by the DiD design.
- (3) **Selection:** The data cannot distinguish between DACA-eligible individuals who applied versus those who did not. The estimated effect is an intent-to-treat effect based on eligibility, not a treatment-on-treated effect.
- (4) **General equilibrium:** If DACA affected labor supply substantially, there could be wage or employment spillovers to ineligible workers that this analysis does not capture.

### 9.4 Conclusion

This replication study provides evidence that DACA eligibility had a positive and statistically significant effect on full-time employment among Hispanic-Mexican, Mexican-born individuals in the United States. The preferred estimate suggests DACA increased full-time employment by 7.5 percentage points (95% CI: 3.9 to 11.0 pp). The findings are robust to alternative specifications and suggest that immigration policies providing work authorization can meaningfully improve labor market outcomes for affected populations.

## A Data and Methodology Notes

### A.1 Variable Definitions

- **FT:** Binary indicator equal to 1 if the individual usually works 35 or more hours per week ( $\text{UHRSWORK} \geq 35$ ), 0 otherwise. Individuals not in the labor force are coded as 0.
- **ELIGIBLE:** Binary indicator equal to 1 for individuals aged 26-30 in June 2012 (treatment group), 0 for individuals aged 31-35 (control group). Pre-constructed by the study coordinators.
- **AFTER:** Binary indicator equal to 1 for years 2013-2016 (post-DACA), 0 for years 2008-2011 (pre-DACA).
- **PERWT:** ACS person weight for producing nationally representative estimates.

### A.2 Sample Selection

The analytic sample was pre-constructed to include:

- Ethnically Hispanic-Mexican individuals ( $\text{HISPAN} = 1$ )
- Born in Mexico ( $\text{BPL} = 200$ )
- Meeting other DACA eligibility criteria aside from age
- Either in the treatment group (ages 26-30 at June 15, 2012) or control group (ages 31-35)

Per the study instructions, no additional sample restrictions were applied.

### A.3 Software

Analysis was conducted using Python 3.x with the following packages:

- pandas (data manipulation)
- numpy (numerical operations)
- statsmodels (regression analysis)
- matplotlib (visualization)

## A.4 Replication Files

All code and data files necessary to replicate this analysis are available in the study repository:

- `analysis.py`: Main analysis script
- `create_figures.py`: Figure generation
- `generate_tables.py`: Table generation
- `prepared_data_numeric_version.csv`: Analysis dataset

## B Additional Tables and Figures

This section contains supplementary analyses referenced in the main text.

Table 12: Full-Time Employment Rates by Year and Treatment Status

Year	Treatment (26-30)	Control (31-35)
2008	67.99%	74.69%
2009	63.66%	68.54%
2010	60.92%	69.02%
2011	62.49%	62.38%
2013	67.39%	65.71%
2014	64.30%	64.19%
2015	69.26%	69.01%
2016	74.14%	66.62%

Note: Rates are weighted using ACS person weights.

Table 13: Sample Distribution by State (Top 10 States)

State	N	% of Sample
California	5,847	33.6%
Texas	4,421	25.4%
Arizona	1,012	5.8%
Illinois	897	5.2%
Florida	576	3.3%
Georgia	509	2.9%
Nevada	422	2.4%
North Carolina	417	2.4%
Colorado	391	2.2%
New York	360	2.1%
Other states	2,530	14.6%
Total	17,382	100.0%