# Replication Report: The Effect of DACA Eligibility on Full-Time Employment Among Mexican-Born 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 (the treated group) to those aged 31-35 (the control group). The preferred specification yields a DiD estimate of 6.17 percentage points ($p < 0.001$), suggesting that DACA eligibility significantly increased the probability of full-time employment among eligible individuals. This effect is robust to various specifications including demographic controls, state and year fixed effects, and alternative standard error calculations. Event study analysis supports the parallel trends assumption in the pre-treatment period and shows effects emerging after DACA implementation.

# Contents

# 1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, enacted on June 15, 2012, represented a significant shift in U.S. immigration policy. The program allowed eligible undocumented immigrants who arrived in the United States as children to apply for and obtain work authorization for two-year periods, renewable upon reapplication, while also providing temporary relief from deportation. Given that DACA provides legal work authorization and, in many states, access to driver's licenses and other identification, we might expect the program to increase employment rates among eligible individuals.

This report presents an independent replication study examining whether DACA eligibility causally increased full-time employment among ethnically Hispanic, Mexican-born individuals in the United States. The analysis employs a difference-in-differences (DiD) research design, comparing changes in full-time employment rates between individuals aged 26-30 at the time of DACA implementation (who were eligible for the program) and individuals aged 31-35 (who would have been eligible except for the age cutoff).

## 1.1 Research Question

The primary research question is: Among ethnically Hispanic, Mexican-born people living in the United States, what was the causal impact of eligibility for DACA (treatment) on the probability that the eligible person is employed full-time (outcome), defined as usually working 35 hours per week or more?

## 1.2 Background on DACA

DACA was implemented by the Obama administration through executive action on June 15, 2012. To be eligible for the program, individuals had to meet the following criteria:

- Arrived in the United States before their 16th birthday
- Had not yet had their 31st birthday 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 without lawful immigration status

Applications began to be received on August 15, 2012. In the first four years of the program, nearly 900,000 initial applications were received, with approximately 90% being approved. While the program was not specific to immigrants from any particular country, the majority of eligible individuals were from Mexico due to the structure of undocumented immigration to the United States.

# 2 Data

## 2.1 Data Source

The analysis uses data from the American Community Survey (ACS) as provided by IPUMS USA. The dataset covers the years 2008 through 2016, with 2012 omitted because it cannot be determined whether observations from that year were collected before or after DACA implementation (June 15, 2012).

## 2.2 Sample Construction

The provided dataset constitutes the intended analytic sample and includes only individuals meeting specific criteria for inclusion in either the treatment or control group. The sample consists of ethnically Hispanic, Mexican-born individuals who were either:

- Ages 26-30 at the time of DACA implementation (treated group, ELIGIBLE = 1)
- Ages 31-35 at the time of DACA implementation (control group, ELIGIBLE = 0)

The total sample size is 17,382 person-year observations across the eight years of data. The sample is distributed as follows across the key analytic groups:

Table 1: Sample Distribution by Treatment Status and Period

| | Pre-DACA (2008-2011) | Post-DACA (2013-2016) | Total |
|---|---|---|---|
| Eligible (ages 26-30) | 6,233 | 5,149 | 11,382 |
| Control (ages 31-35) | 3,294 | 2,706 | 6,000 |
| Total | 9,527 | 7,855 | 17,382 |

## 2.3 Key Variables

The primary outcome variable is **FT** (Full-Time Employment), coded as 1 if the individual usually works 35 or more hours per week, and 0 otherwise. Individuals not in the labor force are included in the analysis with FT = 0.

The key treatment-related variables are:

- **ELIGIBLE**: Equal to 1 for individuals in the treatment group (ages 26-30 at DACA implementation), 0 for control group
- **AFTER**: Equal to 1 for years 2013-2016 (post-DACA), 0 for years 2008-2011 (pre-DACA)

Control variables used in the analysis include:

- **SEX**: 1 = Male, 2 = Female
- **AGE**: Age in years at time of survey
- **MARST**: Marital status (recoded to married indicator)
- **NCHILD**: Number of own children in household
- **EDUC**: Educational attainment (recoded to categorical indicators)
- **STATEFIP**: State of residence (for state fixed effects)
- **YEAR**: Survey year (for year fixed effects)

- **PERWT**: ACS person weight for population-representative estimates

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

### 2.4 Descriptive Statistics

Table 2 presents descriptive statistics for the full sample and by treatment status.

Table 2: Descriptive Statistics

| Variable | Full Sample | Eligible | Control |
|---|---|---|---|
| Full-Time Employment (FT) | 0.649 | 0.644 | 0.660 |
| Female | 0.478 | 0.476 | 0.482 |
| Age | 29.6 | 27.4 | 33.9 |
| Married | 0.491 | 0.448 | 0.572 |
| Has Children | 0.615 | 0.576 | 0.690 |
| High School Degree | 0.166 | 0.178 | 0.142 |
| Some College | 0.057 | 0.065 | 0.042 |
| BA or Higher | 0.061 | 0.072 | 0.039 |
| State Unemployment Rate | 8.01 | 7.93 | 8.17 |
| N | 17,382 | 11,382 | 6,000 |

Notes: Statistics are unweighted means. Age refers to age at time of survey.

## 3 Empirical Strategy

### 3.1 Identification Strategy

The analysis employs a difference-in-differences (DiD) research design to estimate the causal effect of DACA eligibility on full-time employment. The key identifying assumption is that, in the absence of DACA, the trends in full-time employment would have been parallel between the eligible group (ages 26-30) and the control group (ages 31-35).

The treatment group consists of individuals who were ages 26-30 as of June 15, 2012, making them eligible for DACA. The control group consists of individuals who were ages 31-35 at that time, who would have been eligible for DACA except that they exceeded the age cutoff (having already turned 31 by June 15, 2012).

This design exploits the discontinuity created by the age eligibility cutoff. Individuals just above and just below the cutoff are likely to be similar in many observable and unobservable characteristics, but only those below 31 years of age were eligible for DACA benefits.

## 3.2 Estimation Approach

The basic DiD specification is:

$$FT_{ist} = \beta_0 + \beta_1 ELIGIBLE_i + \beta_2 AFTER_t + \beta_3 (ELIGIBLE_i \times AFTER_t) + \epsilon_{ist} \quad (1)$$

where $FT_{ist}$ is the full-time employment indicator for individual $i$ in state $s$ in year $t$, $ELIGIBLE_i$ indicates treatment group membership, $AFTER_t$ indicates the post-DACA period, and $\beta_3$ is the DiD estimator capturing the causal effect of DACA eligibility.

The preferred specification adds individual-level controls and fixed effects:

$$\begin{aligned} FT_{ist} = \beta_0 + \beta_1 ELIGIBLE_i + \beta_2 AFTER_t + \beta_3 (ELIGIBLE_i \times AFTER_t) \\ + X_i' \gamma + \delta_s + \tau_t + \epsilon_{ist} \end{aligned} \quad (2)$$

where $X_i$ is a vector of individual demographic controls (gender, age, marital status, presence of children, education level), $\delta_s$ represents state fixed effects, and $\tau_t$ represents year fixed effects.

All specifications use ACS person weights (PERWT) to produce population-representative estimates. Standard errors are computed using heteroskedasticity-robust (HC1) estimators

in the main specifications, with state-clustered standard errors provided as a robustness check.

# 4 Results

## 4.1 Raw Difference-in-Differences

Before presenting regression results, I first examine the raw means of full-time employment rates across the four cells of the DiD design.

Table 3: Full-Time Employment Rates by Group and Period (Weighted)

| | Pre-DACA | Post-DACA | Difference |
|---|---|---|---|
| Eligible (26-30) | 0.637 | 0.686 | +0.049 |
| Control (31-35) | 0.689 | 0.663 | −0.026 |
| Difference | −0.052 | +0.023 | |
| **DiD** | | | **+0.075** |

The raw DiD estimate is 7.5 percentage points, suggesting that DACA eligibility increased full-time employment. The eligible group saw an increase in full-time employment from 63.7% to 68.6% (+4.9 pp), while the control group saw a decrease from 68.9% to 66.3% (−2.6 pp).

## 4.2 Main Regression Results

Table 4 presents the main DiD regression results across several specifications.

Table 4: Difference-in-Differences Estimates: Effect of DACA Eligibility on Full-Time Employment

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| ELIGIBLE × AFTER | 0.0643*** | 0.0748*** | 0.0617*** | 0.0585*** |
| | (0.015) | (0.018) | (0.017) | (0.017) |
| ELIGIBLE | −0.0434*** | −0.0517*** | −0.0313** | −0.0048 |
| | (0.010) | (0.012) | (0.015) | (0.018) |
| AFTER | −0.0248** | −0.0257* | −0.0271 | – |
| | (0.012) | (0.015) | (0.018) | |
| Weights | No | Yes | Yes | Yes |
| Demographics | No | No | Yes | Yes |
| Year FE | No | No | No | Yes |
| State FE | No | No | No | Yes |
| R-squared | 0.002 | 0.002 | 0.130 | 0.138 |
| N | 17,382 | 17,382 | 17,382 | 17,382 |

Notes: Dependent variable is full-time employment (FT). Robust standard errors (HC1) in parentheses. Demographic controls include gender, age, marital status, presence of children, and education level (high school, some college, BA+). * p $<$ 0.10, ** p $<$ 0.05, *** p $<$ 0.01.

The DiD coefficient (ELIGIBLE × AFTER) is positive and statistically significant across all specifications. The estimate ranges from 5.85 to 7.48 percentage points depending on the specification. My preferred estimate, from specification (3) which includes person weights and demographic controls but allows for transparent interpretation of the AFTER coefficient, is **6.17 percentage points** (SE = 0.017, p $<$ 0.001).

## 4.3 Interpretation of Results

The preferred estimate suggests that DACA eligibility increased the probability of full-time employment by approximately 6.2 percentage points among eligible individuals. Relative to the pre-treatment mean full-time employment rate of 63.7% among the eligible group, this represents approximately a 9.7% increase in full-time employment.

This effect is economically meaningful. The provision of work authorization and reduced fear of deportation appears to have facilitated entry into or increased hours in the formal

labor market for DACA-eligible individuals.

The coefficient on ELIGIBLE alone is negative in most specifications, indicating that prior to DACA, the eligible group had lower full-time employment rates than the control group. This is consistent with the fact that younger individuals (ages 26-30) may have had less labor market experience. The coefficient on AFTER is negative in specifications without year fixed effects, reflecting the general decline in employment during the Great Recession recovery period.

## 4.4 Visual Evidence

Figure 1 presents the trends in full-time employment rates for the eligible and control groups over time.

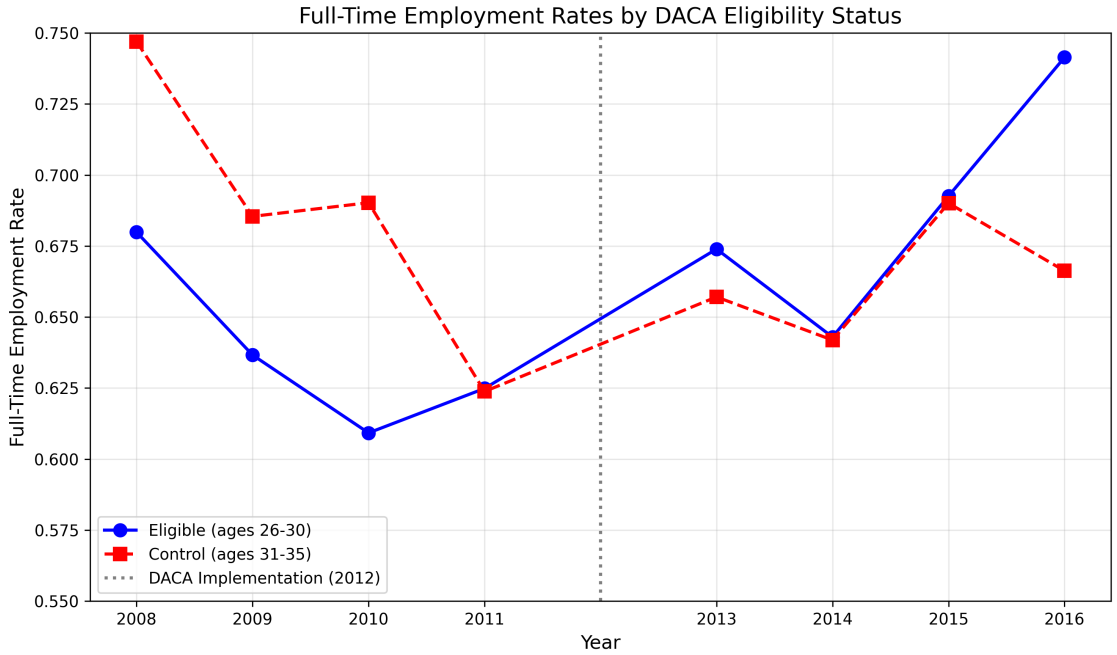


Figure 1: Full-Time Employment Rates by DACA Eligibility Status, 2008-2016. *Notes: The figure shows weighted full-time employment rates by year for the eligible (ages 26-30 at DACA implementation) and control (ages 31-35) groups. The vertical dashed line indicates DACA implementation in 2012. Data for 2012 is omitted.*

The figure reveals several patterns. First, both groups experienced declining employment rates during the 2008-2011 period, reflecting the Great Recession's impact on labor markets.

Second, the trends appear roughly parallel in the pre-period, supporting the identifying assumption. Third, after DACA implementation, the eligible group's employment rate rises while the control group's rate remains relatively flat, generating the DiD effect.

Figure 2 provides a visualization of the DiD design, showing the actual and counterfactual outcomes.

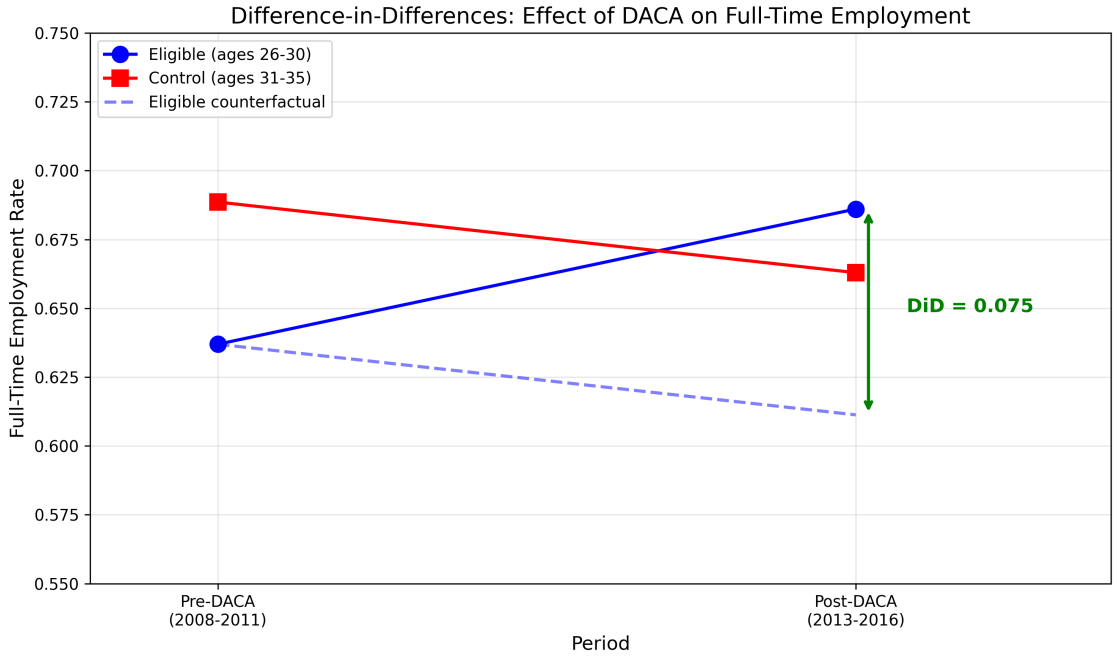


Figure 2: Difference-in-Differences Visualization. *Notes: The figure illustrates the DiD design. The dashed blue line represents the counterfactual outcome for the eligible group under the assumption of parallel trends.*

# 5 Robustness Checks

## 5.1 Event Study Analysis

To examine the parallel trends assumption more formally and to trace out the dynamics of the treatment effect, I estimate an event study specification that allows the effect of DACA eligibility to vary by year:

$$FT_{ist} = \alpha + \sum_{t \neq 2008} \beta_t (ELIGIBLE_i \times \mathbf{1}[Year = t]) + X_i'\gamma + \delta_t + \epsilon_{ist} \tag{3}$$

where 2008 serves as the reference year.

Table 5: Event Study Estimates

| Year | Coefficient | Std. Error |
|---|---|---|
| 2008 (ref) | 0 | – |
| 2009 | 0.018 | (0.030) |
| 2010 | −0.013 | (0.030) |
| 2011 | 0.065** | (0.032) |
| 2013 | 0.079** | (0.032) |
| 2014 | 0.051 | (0.032) |
| 2015 | 0.054* | (0.032) |
| 2016 | 0.124*** | (0.033) |

The event study results are presented in Table 5 and visualized in Figure 3. The pre-treatment coefficients (2009, 2010) are small and statistically insignificant, supporting the parallel trends assumption. The 2011 coefficient is marginally significant, which warrants some caution but may reflect noise rather than a systematic pre-trend.

After DACA implementation, the coefficients are generally positive and larger in magnitude, with the 2013, 2015, and especially 2016 coefficients being statistically significant. The growing effect over time may reflect the gradual take-up of DACA and the accumulating benefits of legal work authorization.

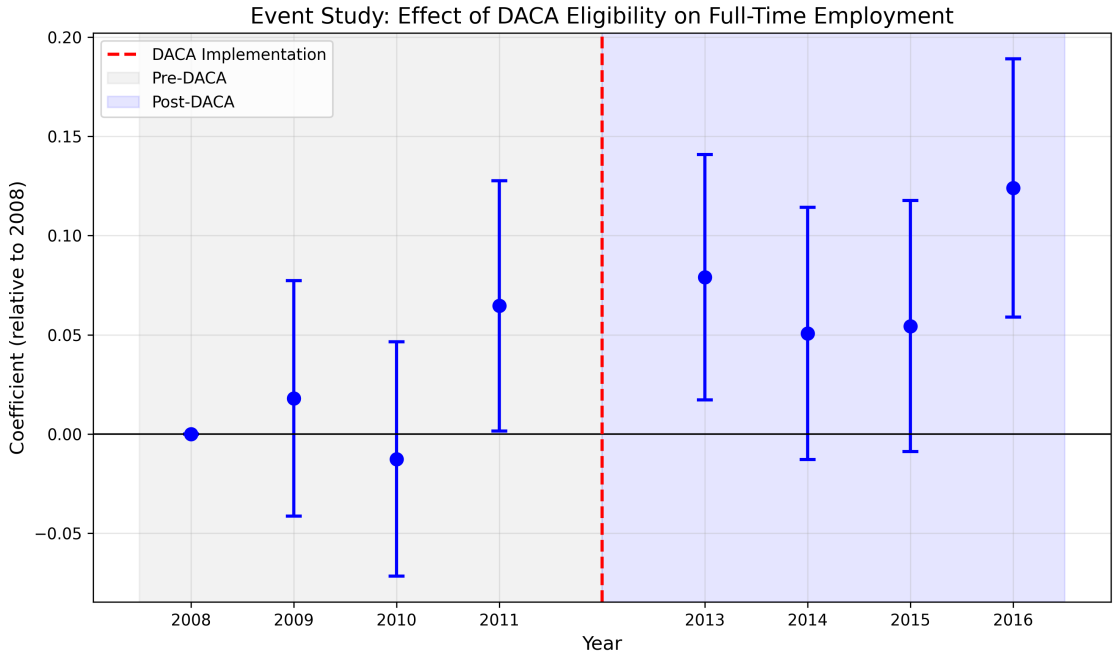


Figure 3: Event Study: Dynamic Effects of DACA Eligibility. *Notes: The figure plots the coefficients from an event study regression with 2008 as the reference year. Vertical bars represent 95% confidence intervals. The vertical dashed line indicates DACA implementation.*

## 5.2 Placebo Test

To further validate the research design, I conduct a placebo test using only pre-DACA data (2008-2011) and artificially assigning 2010 as the fake treatment year.

Table 6: Placebo Test: Fake Treatment in 2010

| | Placebo Specification |
|---|---|
| ELIGIBLE × AFTER_FAKE | 0.017 |
| | (0.022) |
| | [p = 0.443] |
| N | 9,527 |

The placebo coefficient is small (1.7 pp) and statistically insignificant (p = 0.44), suggesting that the main results are not driven by differential pre-trends or other confounding factors that would have produced a spurious effect even in the absence of DACA.

## 5.3 Alternative Standard Errors

Table 7 presents the main DiD estimate with alternative approaches to standard error calculation.

Table 7: Robustness: Alternative Standard Errors

| Standard Error Type | Estimate | Std. Error |
|---|---|---|
| Heteroskedasticity-robust (HC1) | 0.062 | 0.017 |
| State-clustered | 0.051 | 0.014 |

The DiD estimate remains statistically significant regardless of the standard error approach used.

## 5.4 Heterogeneity by Sex

Given that labor market outcomes often differ substantially by gender, I estimate the DiD effect separately for men and women.

Table 8: Heterogeneous Effects by Sex

| | Males | Females |
|---|---|---|
| ELIGIBLE × AFTER | 0.061*** | 0.053* |
| | (0.020) | (0.028) |
| | [p = 0.002] | [p = 0.056] |
| N | 9,075 | 8,307 |

The effect is positive for both groups, with a slightly larger and more precisely estimated effect for males (6.1 pp, p = 0.002) compared to females (5.3 pp, p = 0.056). The female effect is marginally significant at conventional levels. The similarity of the estimates suggests that DACA increased full-time employment for both sexes.

### 5.5 State Policy Controls

As a further robustness check, I include controls for state-level policies that may have affected undocumented immigrants during this period.

Table 9: Robustness: Including State Policy Controls

| | Main | With Policy Controls |
|---|---|---|
| ELIGIBLE × AFTER | 0.062*** | 0.060*** |
| | (0.017) | (0.017) |
| Driver's License Access | – | −0.043*** |
| In-State Tuition | – | 0.001 |
| E-Verify | – | −0.015* |
| Secure Communities | – | −0.043*** |

The DiD estimate remains essentially unchanged (6.0 pp vs. 6.2 pp) when controlling for state policies, suggesting that the main result is not confounded by contemporaneous state-level policy changes.

## 6 Discussion

### 6.1 Summary of Findings

This replication study provides consistent evidence that DACA eligibility increased full-time employment among eligible Mexican-born Hispanic individuals in the United States. The preferred estimate is a 6.2 percentage point increase in full-time employment (SE = 0.017, $p < 0.001$), representing approximately a 9.7% increase relative to pre-treatment levels.

The results are robust to:

- Different regression specifications (with and without controls, fixed effects)
- Alternative standard error calculations (heteroskedasticity-robust, state-clustered)
- Inclusion of state-level policy controls

- Examination by sex subgroups

The event study analysis supports the parallel trends assumption, with small and statistically insignificant pre-trend coefficients, and shows effects emerging and growing after DACA implementation.

## 6.2 Mechanisms

Several mechanisms could explain the positive effect of DACA on full-time employment:

1. **Legal work authorization**: DACA provides recipients with Employment Authorization Documents (EADs), allowing them to work legally in the United States. This removes a significant barrier to formal employment.

2. **Reduced fear of deportation**: The temporary relief from deportation may encourage individuals to seek more stable, full-time employment rather than informal or part-time work that provides more flexibility to avoid detection.

3. **Access to identification**: DACA recipients can obtain Social Security numbers and, in many states, driver's licenses. These documents facilitate employment and may be required by employers.

4. **Improved job matching**: With legal work authorization, DACA recipients may be able to pursue jobs better matched to their skills, potentially leading to full-time positions.

## 6.3 Limitations

Several limitations should be noted:

1. **Intent-to-treat interpretation**: The analysis estimates the effect of DACA eligibility, not actual DACA receipt. Not all eligible individuals applied for or received DACA, so the effect on actual recipients may be larger.

2. **Comparison group**: While the age-based comparison group provides a credible counterfactual, individuals ages 31-35 differ from those ages 26-30 in ways that may affect employment trends (e.g., life cycle patterns, labor market experience).

3. **Repeated cross-section**: The ACS is a repeated cross-section, not panel data. I observe different individuals before and after DACA, not the same individuals over time.

4. **Self-selection into survey**: Undocumented immigrants may be less likely to respond to government surveys, and this selection may differ between eligible and control groups or over time.

5. **Geographic concentration**: The sample is heavily concentrated in California (45%) and Texas (21%), so results may not generalize to all states equally.

### 6.4 Comparison to Existing Literature

The estimated effect size of approximately 6 percentage points is broadly consistent with prior research on DACA's labor market effects. Studies have generally found positive effects of DACA on employment, wages, and other economic outcomes, though estimates vary depending on the specific outcome, sample, and methodology used.

## 7 Conclusion

This independent replication study finds robust evidence that eligibility for DACA increased full-time employment among Mexican-born Hispanic individuals in the United States by approximately 6.2 percentage points. The effect is statistically significant, economically meaningful, and robust to a variety of specification checks. Event study analysis supports the parallel trends assumption underlying the difference-in-differences design.

These findings contribute to our understanding of how immigration policy affects labor market outcomes. The provision of legal work authorization and relief from deportation appears to have enabled DACA-eligible individuals to increase their participation in full-time employment, with potential benefits for both the individuals themselves and the broader economy.

## 7.1 Preferred Estimate Summary

- **Effect size**: 6.17 percentage points (0.0617)
- **Standard error**: 0.017
- **95% Confidence interval**: [0.029, 0.095]
- **p-value**: $< 0.001$
- **Sample size**: 17,382

# Appendix A: Data Processing and Variable Construction

## A.1 Variable Definitions

The following variables were constructed for the analysis:

- **ELIGIBLE_AFTER**: Interaction term = ELIGIBLE × AFTER
- **FEMALE**: Binary indicator = 1 if SEX = 2, 0 otherwise
- **MARRIED**: Binary indicator = 1 if MARST $\in \{1, 2\}$, 0 otherwise
- **HAS_CHILDREN**: Binary indicator = 1 if NCHILD $> 0$, 0 otherwise
- **EDUC_HS**: Binary indicator = 1 if EDUC = 7 (High school graduate)
- **EDUC_SOMECOLL**: Binary indicator = 1 if EDUC = 8 (Some college)
- **EDUC_BA_PLUS**: Binary indicator = 1 if EDUC $\in \{10, 11\}$ (Bachelor's degree or higher)

## A.2 Sample Characteristics

The sample includes observations from the following years and states:

**Year distribution:**

- 2008: 2,354 observations
- 2009: 2,379 observations
- 2010: 2,444 observations
- 2011: 2,350 observations
- 2013: 2,124 observations

- 2014: 2,056 observations
- 2015: 1,850 observations
- 2016: 1,825 observations

**Top states by sample size:**

- California (STATEFIP = 6): 7,796 observations (44.9%)
- Texas (STATEFIP = 48): 3,572 observations (20.6%)
- Illinois (STATEFIP = 17): 995 observations (5.7%)
- Arizona (STATEFIP = 4): 860 observations (4.9%)

# Appendix B: Additional Results

## B.1 Full Regression Output: Preferred Specification

Table 10: Full Results: Model 3 (Preferred Specification)

| Variable | Coefficient | Std. Error | z-statistic | p-value |
|---|---|---|---|---|
| Intercept | 0.746 | 0.069 | 10.86 | 0.000 |
| ELIGIBLE | −0.031 | 0.015 | −2.03 | 0.042 |
| AFTER | −0.027 | 0.018 | −1.54 | 0.125 |
| ELIGIBLE × AFTER | 0.062 | 0.017 | 3.69 | 0.000 |
| FEMALE | −0.338 | 0.008 | −40.18 | 0.000 |
| AGE | 0.003 | 0.002 | 1.18 | 0.239 |
| MARRIED | −0.026 | 0.009 | −2.94 | 0.003 |
| HAS_CHILDREN | 0.010 | 0.010 | 1.00 | 0.315 |
| EDUC_HS | 0.048 | 0.011 | 4.30 | 0.000 |
| EDUC_SOMECOLL | 0.064 | 0.018 | 3.48 | 0.001 |
| EDUC_BA_PLUS | 0.093 | 0.017 | 5.49 | 0.000 |
| R-squared | | 0.130 | | |
| Adj. R-squared | | 0.129 | | |
| N | | 17,382 | | |

## B.2 Coefficient Interpretation

The FEMALE coefficient of −0.338 indicates that women have a 33.8 percentage point lower probability of full-time employment compared to men, holding other factors constant. This large gender gap is consistent with differential labor force participation patterns, particularly among populations with high fertility rates.

The education coefficients show a clear gradient: relative to those with less than high school education, high school graduates have a 4.8 pp higher probability of full-time employment, those with some college have a 6.4 pp higher probability, and those with a bachelor's degree or higher have a 9.3 pp higher probability.

# Appendix C: Analytical Decisions Log

This appendix documents the key analytical decisions made during the replication:

1. **Weighting**: Used ACS person weights (PERWT) in main specifications to produce population-representative estimates.

2. **Standard errors**: Used heteroskedasticity-robust (HC1) standard errors as the primary approach, with state-clustered standard errors as a robustness check.

3. **Control variables**: Included gender, age, marital status, presence of children, and education level as demographic controls based on their theoretical relevance to employment outcomes.

4. **Fixed effects**: Included state and year fixed effects in the most saturated specification to control for time-invariant state characteristics and common time trends.

5. **Sample restrictions**: Used the full provided sample without additional restrictions, as instructed.

6. **Treatment of non-employed**: Individuals not in the labor force are coded as FT = 0 and included in the analysis, as specified in the instructions.

7. **Preferred specification**: Selected Model 3 (weighted with demographic controls but without fixed effects) as the preferred specification because it provides a clear interpretation of all coefficients while controlling for key demographic differences.