The Effect of DACA Eligibility on Full-Time Employment: An Independent Replication Study

Independent Replication Analysis

January 2026

Abstract

This study examines the causal effect of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among Hispanic-Mexican, Mexican-born non-citizens in the United States. Using American Community Survey data from 2006-2016 and a difference-in-differences identification strategy, I find that DACA eligibility increased the probability of full-time employment by 3.43 percentage points (95% CI: [2.59, 4.27], $p < 0.001$). This effect is robust across alternative specifications and supports the hypothesis that legal work authorization improves labor market outcomes for eligible immigrants. Event study analysis confirms the validity of the parallel trends assumption and shows that treatment effects grew over time as program take-up increased.

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 provides temporary protection from deportation and work authorization to undocumented immigrants who arrived in the United States as children. Since its inception, nearly 900,000 initial applications were received in the first four years, with approximately 90% approval rates.

This study addresses a fundamental research question: **Among ethnically Hispanic-Mexican, Mexican-born people 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 or more hours per week, following standard labor market definitions.

Understanding the labor market effects of DACA is important for several reasons. First, work authorization is one of the program's primary benefits, and examining its effects on employment outcomes provides direct evidence on the program's effectiveness. Second, understanding these effects informs ongoing policy debates about immigration reform and the value of legal status for immigrant populations. Third, the quasi-experimental nature of DACA's eligibility criteria provides an opportunity to estimate causal effects using rigorous econometric methods.

The theoretical motivation for expecting positive employment effects is straightforward: DACA provides recipients with legal work authorization, reducing the legal risks and barriers associated with formal employment. Additionally, DACA recipients can obtain driver's licenses and other identification documents in many states, further facilitating labor market participation. These benefits should increase both employment rates and the quality of employment (including full-time work) among eligible individuals.

This independent replication study uses American Community Survey (ACS) data from IPUMS USA covering the years 2006-2016. I employ a difference-in-differences (DID) re-

search design that compares changes in full-time employment between DACA-eligible and DACA-ineligible non-citizen Mexican immigrants before and after the program's implementation. This approach controls for time-invariant differences between eligible and ineligible groups and for common temporal trends affecting all immigrants.

2 Background on DACA

2.1 Program Overview

DACA was announced by the Obama administration on June 15, 2012, and began accepting applications on August 15, 2012. The program was created through executive action rather than legislation, providing temporary relief to undocumented immigrants who met specific eligibility criteria.

2.2 Eligibility Requirements

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

1. **Age at Arrival:** Arrived in the United States before their 16th birthday
2. **Age Limit:** Had not yet reached their 31st birthday as of June 15, 2012
3. **Continuous Presence:** Lived continuously in the United States since June 15, 2007
4. **Physical Presence:** Were physically present in the United States on June 15, 2012
5. **Immigration Status:** Did not have lawful immigration status on June 15, 2012
6. **Education/Military:** Were in school, had graduated from high school, obtained a GED, or were honorably discharged from the military
7. **Criminal History:** Had not been convicted of a felony, significant misdemeanor, or multiple misdemeanors

2.3 Program Benefits

DACA provides two primary benefits:

- **Deferred Action:** Temporary protection from deportation for two years, renewable
- **Work Authorization:** Legal authorization to work in the United States

Additionally, DACA recipients can obtain driver's licenses in all states and Social Security numbers, facilitating employment and other economic activities.

2.4 Program Demographics

While DACA is not specific to any national origin group, the structure of undocumented immigration to the United States means that the vast majority of eligible individuals are from Mexico and Central America. Mexican nationals represent the largest single national origin group among DACA recipients.

3 Data

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 on the U.S. population. The ACS is particularly well-suited for studying immigrant populations due to its large sample size and detailed questions about nativity, citizenship, and year of immigration.

3.2 Sample Selection

I use ACS one-year samples from 2006 through 2016, excluding 2012 which spans both the pre- and post-DACA periods. The sample construction proceeds as follows:

1. Start with the full ACS sample (33,851,424 observations)
2. Restrict to Hispanic-Mexican ethnicity (HISPAN = 1): 2,945,521 observations
3. Restrict to Mexican-born individuals (BPL = 200): 991,261 observations
4. Restrict to non-citizens (CITIZEN = 3): 701,347 observations
5. Restrict to working-age population (ages 16-64): 618,640 observations
6. Restrict to non-institutional group quarters (GQ $\in \{1, 2, 5\}$): 598,497 observations
7. Exclude 2012 (transitional year): 543,595 observations
8. Require valid immigration year (YRIMMIG > 0): 543,595 observations (final sample)

The restriction to non-citizens is crucial because citizens cannot be undocumented and therefore cannot be DACA-eligible. Following the instructions provided, I assume that non-citizens who have not naturalized are undocumented for DACA purposes, as the ACS does not directly identify documentation status.

3.3 Variable Definitions

3.3.1 Outcome Variable

The primary outcome is **full-time employment**, defined as:

$$\text{fulltime}_i = \mathbf{1}[\text{UHRSWORK}_i \geq 35]$$

where UHRSWORK is the usual hours worked per week. This follows the standard U.S. definition of full-time work.

3.3.2 Treatment Variable: DACA Eligibility

I define DACA eligibility based on three criteria that can be observed in the ACS data:

1. **Age at arrival < 16:** Calculated as YRIMMIG - BIRTHYR < 16
2. **Under 31 as of June 15, 2012:** BIRTHYR ≥ 1982
3. **Continuous presence since June 2007:** YRIMMIG ≤ 2007

An individual is classified as DACA-eligible if all three criteria are satisfied:

$$\text{eligible}_i = \mathbf{1}[\text{age\_at\_immig}_i < 16] \times \mathbf{1}[\text{BIRTHYR}_i \geq 1982] \times \mathbf{1}[\text{YRIMMIG}_i \leq 2007]$$

Note that I cannot observe all DACA eligibility criteria (such as education status or criminal history), so this measure represents *potential* eligibility based on demographic characteristics.

3.3.3 Post-Treatment Indicator

The post-treatment indicator is:

$$\text{post}_t = \mathbf{1}[\text{YEAR} \geq 2013]$$

Year 2012 is excluded because DACA was announced in June 2012, making it impossible to clearly classify observations as pre- or post-treatment.

3.3.4 Control Variables

I include the following control variables in the regression models:

- **Age and Age^2:** To capture nonlinear age effects on employment
- **Female:** Indicator for female sex (SEX = 2)

- **Married:** Indicator for married status (MARST $\in \{1, 2\}$)
- **Education:** Indicators for high school completion, some college, and college degree or higher (reference: less than high school)
- **Year Fixed Effects:** To control for aggregate time trends
- **State Fixed Effects:** To control for time-invariant state characteristics

4 Empirical Strategy

4.1 Identification Strategy

I employ 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, trends in full-time employment would have been parallel between DACA-eligible and DACA-ineligible non-citizen Mexican immigrants.

The DID approach compares:

1. The change in full-time employment for DACA-eligible individuals before and after 2012
2. The change in full-time employment for DACA-ineligible individuals before and after 2012

The difference between these two changes provides the DID estimate of the DACA effect.

4.2 Regression Specification

The main regression model is:

$$\text{fulltime}_{ist} = \beta_0 + \beta_1 \text{eligible}_i + \beta_2 \text{post}_t + \beta_3 (\text{eligible}_i \times \text{post}_t) + X'_{ist}\gamma + \alpha_s + \delta_t + \varepsilon_{ist} \quad (1)$$

where:

- fulltime_{ist} is the full-time employment indicator for individual i in state s at time t
- eligible_i is the DACA eligibility indicator
- post_t is the post-2012 indicator
- X_{ist} is a vector of individual-level controls (age, age^2, female, married, education)
- α_s represents state fixed effects
- δ_t represents year fixed effects
- ε_{ist} is the error term

The coefficient of interest is β_3, which captures the differential change in full-time employment for DACA-eligible individuals after the program's implementation, relative to DACA-ineligible individuals.

4.3 Weighting

I use person weights (PERWT) provided by IPUMS to make the estimates representative of the target population. Robust (heteroskedasticity-consistent) standard errors are used throughout.

4.4 Event Study Specification

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

$$\text{fulltime}_{ist} = \sum_{k \neq 2011} \theta_k (\text{eligible}_i \times \mathbf{1}[\text{YEAR} = k]) + X'_{ist}\gamma + \alpha_s + \delta_t + \varepsilon_{ist} \tag{2}$$

where θ_k captures the differential effect for DACA-eligible individuals in year k relative to the reference year (2011, the year before DACA). Under the parallel trends assumption, pre-treatment coefficients (θ_{2006} through θ_{2010}) should be close to zero.

5 Results

5.1 Descriptive Statistics

Table 1 presents summary statistics for the analysis sample, separately by DACA eligibility status.

Table 1: Summary Statistics by DACA Eligibility Status

Variable	Eligible	Ineligible	Difference
Age (years)	22.32	39.56	-17.24
Female (%)	46.1	47.3	-1.2
Married (%)	25.7	66.3	-40.5
Education < HS (%)	42.1	59.8	-17.7
Education = HS (%)	42.1	29.2	12.8
Some College (%)	15.7	9.9	5.8
College+ (%)	0.2	1.2	-1.0
Usual Hours/Week	23.58	28.82	-5.24
Full-Time (%)	46.0	60.1	-14.1
N	78,568	465,027	

Several patterns are noteworthy. First, DACA-eligible individuals are substantially younger (22 vs. 40 years), reflecting the program's age requirements. Second, they are much less likely to be married (26% vs. 66%), consistent with their younger age. Third, they have higher education levels on average, with fewer having less than a high school education (42% vs. 60%) and more having completed high school or attended college. Finally, their baseline full-time employment rate is lower (46% vs. 60%), partly reflecting their younger age and higher rates of school enrollment.

5.2 Difference-in-Differences Estimates

Table 2 presents the raw difference-in-differences calculation for full-time employment rates.

Table 2: Difference-in-Differences: Full-Time Employment Rates

Group	Pre-DACA	Post-DACA	Difference
DACA Eligible	0.4272	0.5026	+0.0754
DACA Ineligible	0.6101	0.5857	-0.0244
Difference-in-Differences			**+0.0998**

The raw DID estimate suggests that DACA eligibility increased full-time employment by approximately 10 percentage points. However, this unadjusted estimate does not control for differences in observable characteristics between the groups or for differential trends.

5.3 Regression Results

Table 3 presents the main regression results across different specifications.

Table 3: Effect of DACA Eligibility on Full-Time Employment

	(1) Basic	(2) +Demo	(3) +Year FE	(4) +State FE	(5) Weighted
DACA Eligible × Post	0.0998***	0.0448***	0.0392***	0.0385***	**0.0343*** **
	(0.0039)	(0.0036)	(0.0036)	(0.0035)	(0.0043)
DACA Eligible	-0.1830***	-0.0471***	-0.0346***	-0.0295***	-0.0310***
	(0.0025)	(0.0029)	(0.0029)	(0.0029)	(0.0035)
Post	-0.0244***	-0.0243***	–	–	–
	(0.0015)	(0.0013)			
Demographics	No	Yes	Yes	Yes	Yes
Year FE	No	No	Yes	Yes	Yes
State FE	No	No	No	Yes	Yes
Weighted	No	No	No	No	Yes
R^2	0.011	0.233	0.234	0.240	0.242
N	543,595	543,595	543,595	543,595	543,595

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Demographics include age, age^2, female, married, and education indicators.

The basic DID estimate (column 1) shows a 10 percentage point effect, which falls to about 4.5 percentage points when demographic controls are added (column 2). The addition of year fixed effects (column 3) and state fixed effects (column 4) has modest additional impact. The preferred specification (column 5) uses person weights to make the estimates population-representative.

Preferred Estimate: The weighted model with full controls indicates that DACA eligibility increased the probability of full-time employment by **3.43 percentage points** (SE = 0.0043, $p < 0.001$). The 95% confidence interval is [2.59, 4.27] percentage points.

5.4 Event Study Results

Table 4 presents the event study coefficients, showing the year-specific effects of DACA eligibility relative to 2011 (the year before DACA).

Table 4: Event Study: Year-by-Year Treatment Effects

Year	Coefficient	Std. Error	p-value
2006	-0.0196	0.0100	0.051
2007	-0.0120	0.0096	0.211
2008	0.0003	0.0097	0.973
2009	0.0092	0.0096	0.335
2010	0.0102	0.0093	0.274
2011	(reference year)		
2013	0.0170	0.0093	0.068
2014	0.0279	0.0094	0.003
2015	0.0437	0.0093	<0.001
2016	0.0453	0.0095	<0.001

The event study results provide support for the parallel trends assumption. The pre-treatment coefficients (2006-2010) are generally small and statistically insignificant, with point estimates clustered around zero. The 2006 coefficient is marginally significant and negative, but this single deviation does not invalidate the overall pattern.

The post-treatment coefficients show an interesting dynamic pattern. The effect is relatively small in 2013 (1.7 percentage points, marginally significant) and grows over subsequent

years, reaching 4.5 percentage points by 2015-2016. This pattern is consistent with gradual program take-up, as DACA recipients applied for and received their work authorization over time.

5.5 Robustness Checks

Table 5 presents results from several robustness checks.

Table 5: Robustness Checks

Specification	Estimate	Std. Error	p-value	N
Main result	0.0343	0.0043	<0.001	543,595
Employed only	-0.0009	0.0051	0.853	355,995
Males only	0.0331	0.0056	<0.001	287,360
Females only	0.0268	0.0063	<0.001	256,235
Alt. age cutoff (1981+)	0.0284	0.0042	<0.001	543,595

Several patterns emerge from the robustness analysis:

Intensive vs. Extensive Margin: When restricting the sample to employed individuals only, the effect becomes essentially zero and statistically insignificant. This suggests that DACA affects employment primarily through the *extensive margin* (whether people work at all, or whether they transition from part-time to full-time) rather than the *intensive margin* (increasing hours among those already working full-time).

Gender Heterogeneity: The effects are similar for males (3.31 pp) and females (2.68 pp), with both estimates statistically significant. The slightly larger effect for males may reflect gender differences in labor market attachment, but the confidence intervals overlap substantially.

Alternative Age Cutoff: Using birth year 1981 (rather than 1982) as the cutoff for the under-31 requirement produces similar results (2.84 pp), confirming robustness to this definition choice.

6 Discussion

6.1 Interpretation of Results

The main finding of this study is that DACA eligibility increased full-time employment by approximately 3.4 percentage points among Hispanic-Mexican, Mexican-born non-citizens. This represents a meaningful effect, corresponding to roughly a 7.4% increase relative to the pre-DACA full-time employment rate of 46% among eligible individuals.

Several mechanisms could explain this effect:

1. **Legal Work Authorization:** The most direct mechanism is that DACA provides recipients with legal authorization to work. This removes legal barriers to formal employment and reduces the risk of deportation for both workers and employers.

2. **Identification Documents:** DACA recipients can obtain driver's licenses, Social Security numbers, and other identification documents. These facilitate employment verification and may be required for many jobs.

3. **Improved Job Quality:** With legal status, workers may have access to better jobs that offer more hours, as they are no longer restricted to informal or under-the-table employment arrangements.

4. **Reduced Fear:** The protection from deportation may increase labor market participation by reducing fear of immigration enforcement, allowing individuals to seek and maintain stable employment.

The null effect when restricting to employed individuals suggests that DACA's primary impact is on employment entry (the extensive margin) rather than on hours worked among those already employed. This is consistent with the interpretation that DACA removes barriers to formal employment rather than changing the nature of work for those already working.

6.2 Comparison to Existing Literature

These findings are broadly consistent with prior research on DACA's labor market effects. Previous studies have found positive effects on employment, labor force participation, and earnings among DACA-eligible individuals. The magnitude of the effect estimated here (3.4 percentage points) is within the range of estimates from other studies.

The event study results showing growing effects over time are also consistent with prior research documenting gradual program take-up and cumulative effects as recipients obtained work authorization and adjusted their labor market behavior.

6.3 Limitations

Several limitations should be noted:

1. **Intent-to-Treat:** The analysis estimates the effect of DACA *eligibility*, not actual DACA receipt. Not all eligible individuals applied for or received DACA. The estimated effect represents an intent-to-treat effect that is likely smaller than the effect on actual recipients.

2. **Measurement Error in Eligibility:** The ACS does not directly identify undocumented status, so I approximate eligibility based on observable characteristics. Some individuals classified as eligible may be documented, and some classified as ineligible may be eligible. This measurement error likely attenuates the estimated effect.

3. **Unobservable Eligibility Criteria:** I cannot observe education status or criminal history, which are part of the DACA eligibility requirements. This means the eligibility measure captures demographic eligibility but not full programmatic eligibility.

4. **Selection into the Sample:** The sample is restricted to non-citizens. If some DACA recipients naturalize (which would remove them from the sample), this could introduce selection bias, though naturalization is not directly facilitated by DACA.

5. **Potential Spillovers:** DACA may have affected the labor market outcomes of ineligible individuals (the control group) through general equilibrium effects or changes in employer behavior. Such spillovers would bias the DID estimate.

6.4 Policy Implications

The results have several policy implications:

1. **Work Authorization Matters:** The positive employment effect of DACA suggests that legal work authorization has meaningful labor market benefits for eligible immigrants. Policies that provide work authorization may improve labor market outcomes.

2. **Program Effectiveness:** DACA appears to have achieved one of its primary goals of improving labor market access for eligible undocumented youth.

3. **Economic Integration:** Full-time employment is associated with economic stability and integration. The positive effects of DACA on full-time employment suggest the program facilitates economic integration of eligible immigrants.

7 Conclusion

This study examines the effect of DACA eligibility on full-time employment using a difference-in-differences research design and American Community Survey data from 2006-2016. The main finding is that DACA eligibility increased full-time employment by 3.43 percentage points (95% CI: [2.59, 4.27]) among Hispanic-Mexican, Mexican-born non-citizens.

The result is statistically significant and robust across alternative specifications. Event study analysis supports the parallel trends assumption and reveals growing treatment effects over time as program take-up increased. Heterogeneity analysis shows similar effects for males and females, and robustness checks confirm the results are not sensitive to alternative definitions of eligibility.

The findings contribute to understanding the labor market effects of immigration policy and suggest that programs providing work authorization can meaningfully improve employment outcomes for eligible immigrants. The positive effect on full-time employment indicates that DACA has facilitated economic integration and labor market participation among its target population.

A Additional Tables and Figures

A.1 Sample Construction

Table 6: Sample Construction

Step	Observations	% of Previous
Full ACS sample (2006-2016)	33,851,424	–
Hispanic-Mexican (HISPAN = 1)	2,945,521	8.7%
Mexican-born (BPL = 200)	991,261	33.7%
Non-citizen (CITIZEN = 3)	701,347	70.8%
Working age (16-64)	618,640	88.2%
Non-institutional (GQ $\in$ {1,2,5})	598,497	96.7%
Exclude 2012	543,595	90.8%
Valid YRIMMIG	543,595	100.0%

A.2 DACA Eligibility Criteria

Table 7: DACA Eligibility Criteria in Analysis Sample

Criterion	N	% of Sample
Arrived before age 16	134,635	24.8%
Under 31 in June 2012 (born 1982+)	148,750	27.4%
Arrived by 2007	514,326	94.6%
All criteria (DACA Eligible)	78,568	14.5%

A.3 Variable Definitions

Table 8: Variable Definitions

Variable	Definition
YEAR	Census/survey year
HISPAN	Hispanic origin: 1 = Mexican
BPL	Birthplace: 200 = Mexico
CITIZEN	Citizenship status: 3 = Not a citizen
YRIMMIG	Year of immigration
BIRTHYR	Birth year
AGE	Age in years
SEX	Sex: 1 = Male, 2 = Female
MARST	Marital status: 1,2 = Married
EDUC	Educational attainment
STATEFIP	State FIPS code
UHRSWORK	Usual hours worked per week
EMPSTAT	Employment status: 1 = Employed
PERWT	Person weight
GQ	Group quarters status

A.4 Full Regression Output

Table 9: Full Regression Results - Preferred Specification

Variable	Coefficient	Std. Error
DACA Eligible	-0.0310	(0.0035)
Eligible × Post	**0.0343**	(0.0043)
Age	0.0448	(0.0004)
Age^2	-0.0005	(0.0000)
Female	-0.4423	(0.0012)
Married	-0.0433	(0.0014)
Education: HS	0.0459	(0.0014)
Education: Some College	0.0554	(0.0022)
Education: College+	0.0860	(0.0064)
Constant	-0.0310	(0.0204)
Year Fixed Effects	Yes	
State Fixed Effects	Yes	
Weighted (PERWT)	Yes	
R^2	0.2417	
N	543,595	

B Replication Information

B.1 Data Sources

- American Community Survey (ACS) 2006-2016, one-year files
- Source: IPUMS USA
- Main data file: data.csv (6.27 GB)
- Data dictionary: acs_data_dict.txt

B.2 Software and Code

- Programming language: Python 3.x
- Key packages: pandas, numpy, statsmodels
- Analysis script: analysis_90.py

B.3 Key Results Summary

- **Preferred Estimate:** 0.0343 (3.43 percentage points)
- **Standard Error:** 0.0043
- **95% Confidence Interval:** [0.0259, 0.0427]
- **p-value:** < 0.0001
- **Sample Size:** 543,595