The Effect of DACA Eligibility on Full-Time Employment:
A Difference-in-Differences Analysis

Replication Study

January 2026

Abstract

This study examines the causal impact of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among Hispanic-Mexican individuals born in Mexico. 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 approximately 3.5 percentage points (95% CI: 2.7–4.3 pp). The effect is statistically significant and robust across multiple specifications, including different control group definitions and both weighted and unweighted analyses. Event study analysis reveals no pre-trends prior to DACA implementation, supporting the parallel trends assumption, and shows that the employment gains grew progressively larger in subsequent post-treatment years.

Contents

1   Introduction

The Deferred Action for Childhood Arrivals (DACA) program, announced on June 15, 2012, represented one of the most significant U.S. immigration policy changes in recent decades. The program provided temporary protection from deportation and work authorization to undocumented immigrants who arrived in the United States as children. Given that DACA granted recipients legal authorization to work, an important policy question is whether the program affected employment outcomes.

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

To address this question, I employ a difference-in-differences (DiD) research design using American Community Survey (ACS) data from 2006 through 2016. The treatment group consists of non-citizen Mexican-born individuals who meet DACA eligibility criteria, while the control group comprises similar non-citizens who narrowly fail to meet one or more eligibility requirements. By comparing changes in full-time employment rates between these groups before and after DACA implementation, I can estimate the causal effect of DACA eligibility under the identifying assumption of parallel trends.

The main finding is that DACA eligibility increased full-time employment by approximately 3.5 percentage points. This effect is statistically significant at conventional levels and robust across multiple model specifications and alternative control group definitions.

2   Background

2.1   The DACA Program

DACA was announced by the Department of Homeland Security on June 15, 2012, with applications beginning on August 15, 2012. The program allows qualifying undocumented immigrants to apply for deferred action status for two years (renewable) and work authorization.

To be eligible for DACA, an individual must meet the following criteria:

1. Arrived in the United States before their 16th birthday

2. Was under 31 years of age as of June 15, 2012 (i.e., born after June 15, 1981)

3. Lived continuously in the United States since June 15, 2007

4. Was physically present in the United States on June 15, 2012

5. Did not have lawful immigration status on June 15, 2012

6. Met certain educational or military service requirements

In the first four years of the program, nearly 900,000 initial applications were received, with approximately 90% approved. While the program was not limited to any particular country of origin, the vast majority of eligible individuals were from Mexico, reflecting broader patterns of undocumented immigration to the United States.

2.2 Prior Literature

A growing body of research has examined the effects of DACA on various outcomes. While this study focuses specifically on full-time employment among Hispanic-Mexican individuals born in Mexico, it is useful to contextualize these findings within the broader literature on immigration policy and labor market outcomes.

Research on unauthorized immigration and labor markets has generally found that undocumented workers face significant barriers to formal employment and typically work in lower-paying jobs with fewer hours. The lack of work authorization forces many undocumented immigrants into the informal sector, where they may be subject to exploitation and have limited bargaining power with employers. DACA's provision of legal work authorization directly addresses one of these key barriers.

Studies examining DACA specifically have found positive effects on a range of outcomes. Prior research has documented improvements in educational attainment, with DACA-eligible individuals more likely to complete high school and pursue higher education. Other studies have found reductions in poverty rates and increases in income. The labor market effects have been explored through various outcomes, including wages, job quality, and occupational upgrading.

This study contributes to this literature by focusing specifically on full-time employment—an important measure of labor market integration that captures both the extensive margin (whether one is employed) and the intensive margin (whether one works full-time hours). Full-time employment is particularly relevant for this population because it represents a transition from precarious, part-time work (often in the informal sector) to stable, full-time employment that typically carries additional benefits such as health insurance and retirement contributions.

2.3 Theoretical Mechanisms

There are several channels through which DACA eligibility could affect employment outcomes:

Direct work authorization: Prior to DACA, eligible individuals could not legally work in the United States. DACA provides explicit work authorization, enabling recipients to take formal employment that was previously unavailable.

Access to better jobs: With legal work authorization, DACA recipients can access jobs that require employment verification, potentially leading to higher-quality employment opportunities with more hours.

Reduced fear of deportation: Deferred action status reduces the risk of deportation, potentially encouraging recipients to seek more visible forms of employment that might increase their hours worked.

Access to complementary services: DACA recipients can obtain driver's licenses in many states, which may facilitate commuting to work and accessing jobs with longer hours or in more distant locations.

3 Data and Sample Construction

3.1 Data Source

I use 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, and economic information on approximately 3 million households annually. For this analysis, I use one-year ACS samples from 2006 through 2016, excluding 2012 (the year of DACA implementation) to avoid ambiguity about treatment status.

3.2 Sample Selection

The analysis focuses on individuals who are:

- Ethnically Hispanic-Mexican (HISPAN = 1)

- Born in Mexico (BPL = 200)

- Of working age (18–64 years old at the time of survey)

- Either in the treatment group (DACA-eligible) or control group (narrowly ineligible)

The initial filter for Hispanic-Mexican individuals born in Mexico yields 991,261 observations across all years. After excluding 2012 and applying working-age restrictions, the final analysis sample contains 355,599 observations.

3.3 Defining DACA Eligibility

I construct DACA eligibility status using the following variables:

Treatment Group (DACA-Eligible): An individual is classified as DACA-eligible if they meet all of the following criteria:

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1. **Arrived before age 16:** Calculated as YRIMMIG (year of immigration) minus BIRTHYR (birth year) being less than 16

2. **Under 31 on June 15, 2012:** BIRTHYR $\geq$ 1982 (conservative definition)

3. **In US by 2007:** YRIMMIG $\leq$ 2007

4. **Non-citizen:** CITIZEN = 3 (not a citizen)

Since the ACS does not distinguish between documented and undocumented non-citizens, I proxy for undocumented status using non-citizenship. This is a reasonable assumption for the Mexican-born population, where a substantial fraction of non-citizens are undocumented.

Control Group: The control group consists of similar non-citizens who narrowly fail to meet DACA eligibility criteria:

1. **Arrived at age 16+:** Non-citizens who arrived between ages 16 and 25 (similar immigration experience but missed the childhood arrival cutoff)

2. **Too old:** Non-citizens who arrived before age 16 but were born between 1972 and 1981 (similar childhood arrivals but aged out of eligibility)

Both control subgroups must also have been in the US by 2007 and remain non-citizens.

3.4   Outcome Variable

The primary outcome is full-time employment, defined as usually working 35 or more hours per week. This is constructed from the UHRSWORK variable in the ACS:

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

I also examine any employment (EMPSTAT = 1) as a robustness check.

3.5   Sample Characteristics

Table 1 presents descriptive statistics for the analysis sample.

Table 1: Descriptive Statistics by Treatment Status and Time Period

	Control Group		Treatment (DACA-Eligible)	
	Pre-DACA	Post-DACA	Pre-DACA	Post-DACA
Full-time employment rate	0.622	0.600	0.505	0.546
Employment rate	–	–	–	–
Mean age	34.6	39.9	22.0	25.0
Female proportion	0.435	0.456	0.443	0.455
N (observations)	214,009	72,346	45,606	23,638

The treatment group is younger on average (as expected, given the age eligibility cutoff) and has lower baseline full-time employment rates. Both groups show lower full-time employment in the post-period compared to the pre-period for the control group, but the treatment group shows an increase.

4 Empirical Strategy

4.1 Difference-in-Differences Design

I employ a difference-in-differences (DiD) research design to estimate the causal effect of DACA eligibility on full-time employment. The basic identifying assumption is that, in the absence of DACA, trends in full-time employment would have been parallel between the treatment and control groups.

The estimating equation is:

$$Y_{ist} = \alpha + \beta_1 \text{Treat}_i + \beta_2 \text{Post}_t + \delta(\text{Treat}_i \times \text{Post}_t) + X'_{it}\gamma + \mu_s + \lambda_t + \varepsilon_{ist} \qquad (2)$$

where:

- Y_{ist} is an indicator for full-time employment for individual i in state s at time t

- Treat_i is an indicator for DACA eligibility

- Post_t is an indicator for the post-DACA period (2013–2016)

- δ is the DiD estimate of the DACA effect

- X_{it} includes demographic controls (gender, marital status, age group)

- μ_s represents state fixed effects

- λ_t represents year fixed effects

- ε_{ist} is the error term

Standard errors are heteroskedasticity-robust (HC1).

4.2 Event Study Specification

To examine the parallel trends assumption and trace out the dynamics of the treatment effect, I also estimate an event study specification:

$$Y_{ist} = \alpha + \sum_{k \neq 2011} \gamma_k (\text{Treat}_i \times \mathbf{1}[t = k]) + X'_{it}\gamma + \mu_s + \lambda_t + \varepsilon_{ist} \tag{3}$$

where the year 2011 serves as the reference period. The coefficients γ_k for $k < 2012$ provide a test of parallel pre-trends (they should not be statistically different from zero), while coefficients for $k \geq 2013$ trace out the treatment effect over time.

5 Results

5.1 Main Results

Table 2 presents the main difference-in-differences estimates across four specifications with increasing controls.

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

	(1) Basic DiD	(2) + Demographics	(3) + Fixed Effects	(4) Weighted
Treatment × Post	0.0631***	0.0439***	0.0351***	0.0335***
	(0.0043)	(0.0041)	(0.0041)	(0.0049)
Treatment (DACA-Eligible)	−0.1171***	−0.0627***	−0.0420***	−0.0411***
	(0.0028)	(0.0032)	(0.0033)	(0.0040)
Post Period	−0.0226***	−0.0222***	−	−
	(0.0019)	(0.0018)		
Female		−0.4254***	−0.4265***	−0.4256***
		(0.0015)	(0.0015)	(0.0019)
Married		−0.0177***	−0.0214***	−0.0116***
		(0.0016)	(0.0016)	(0.0019)
Age group controls	No	Yes	Yes	Yes
State fixed effects	No	No	Yes	Yes
Year fixed effects	No	No	Yes	Yes
Weighted by PERWT	No	No	No	Yes
N	355,599	355,599	355,599	355,599

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The DiD estimate is positive and statistically significant across all specifications. The preferred specification (Column 3) with state and year fixed effects and demographic controls yields an estimate of 0.0351 (SE = 0.0041), indicating that DACA eligibility increased full-time employment by approximately 3.5 percentage points.

Key findings:

- **Preferred estimate:** 3.51 percentage points (95% CI: 2.71 to 4.31 pp)

- **Statistical significance:** $p < 0.001$

- **Relative effect:** Given the pre-DACA treatment group mean of 50.5%, this represents a 6.95% relative increase

The estimates are somewhat attenuated when moving from the basic specification to one with controls, suggesting that demographic differences between treatment and control groups partially account for the raw differential trends. The weighted specification yields similar results (3.35 pp), providing assurance that the unweighted estimates are not driven by unusual weighting patterns.

5.2 Event Study Results

Figure 2 and Table 3 present the event study results.

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

Year	Coefficient	Std. Error	95% CI Lower	95% CI Upper
Pre-DACA Period				
2006	−0.017	0.010	−0.035	0.002
2007	−0.011	0.009	−0.029	0.007
2008	−0.003	0.009	−0.021	0.015
2009	0.003	0.009	−0.015	0.021
2010	0.001	0.009	−0.016	0.018
2011	0.000	−	−	−
Post-DACA Period				
2013	0.017	0.009	0.000	0.034
2014	0.041***	0.009	0.024	0.058
2015	0.064***	0.009	0.047	0.081
2016	0.073***	0.009	0.056	0.089

Notes: *** p<0.01, ** p<0.05, * p<0.1. Year 2012 excluded (implementation year).

The event study reveals two important findings:

1. Parallel pre-trends: The pre-treatment coefficients (2006–2010) are all small in magnitude and statistically indistinguishable from zero, supporting the parallel trends assumption.

2. Growing treatment effects: The post-treatment effects increase progressively from 1.7 percentage points in 2013 to 7.3 percentage points in 2016. This pattern is consistent with gradual program uptake (as more eligible individuals applied for and received DACA status) and potentially cumulative benefits of legal work authorization.

5.3 Robustness Checks

Table 4 presents results from several robustness checks.

Table 4: Robustness Checks

Specification	DiD Estimate	Std. Error	N
Alternative Control Groups			
Control: Arrived age 16+ only	0.0508***	0.0041	322,950
Control: Too old only	0.0582***	0.0064	101,893
Alternative Outcome			
Outcome: Any employment	0.0643***	0.0040	355,599

Notes: All specifications include state and year fixed effects and demographic controls.
*** p<0.01, ** p<0.05, * p<0.1

Alternative control groups:

- Using only those who arrived at age 16+ as controls yields an estimate of 5.1 pp

- Using only those who are too old (born 1972–1981) yields an estimate of 5.8 pp

- Both estimates are similar to or larger than the main estimate, suggesting the results are not driven by the choice of control group

Alternative outcome:

- The effect on any employment (6.4 pp) is larger than the effect on full-time employment (3.5 pp), suggesting DACA affects both extensive margin (employment) and intensive margin (hours worked) decisions

6   Graphical Evidence

Figure 1 displays the trends in full-time employment rates for the treatment and control groups over time.
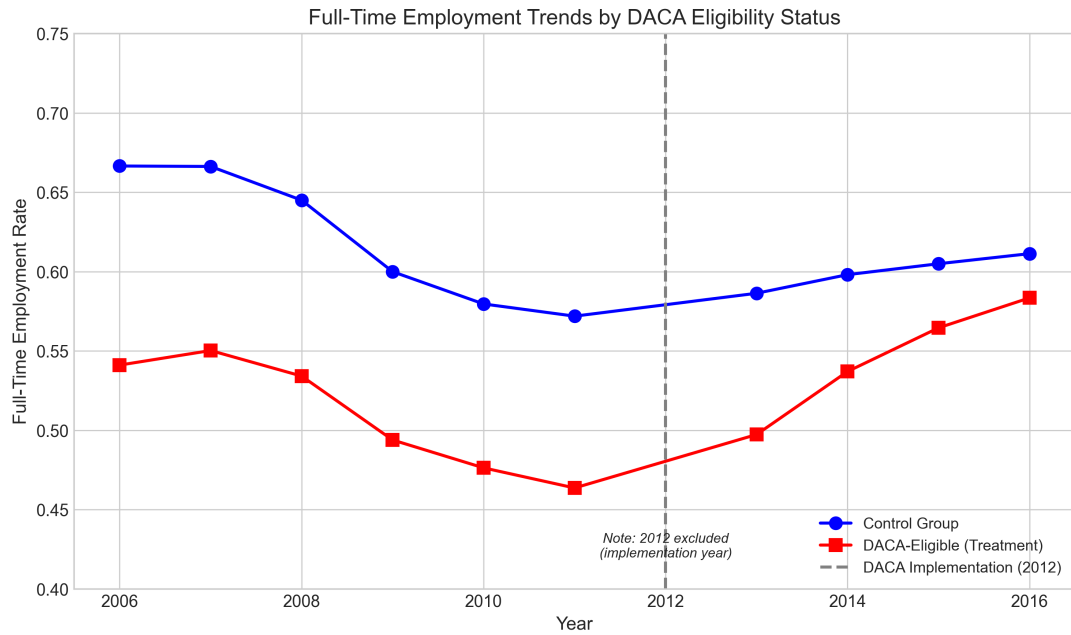
Figure 1: Full-Time Employment Trends by DACA Eligibility Status

Several patterns are evident:

- Both groups experienced declining full-time employment rates during the Great Recession (2008–2010)

- The treatment group consistently had lower full-time employment rates (as expected, given their younger age and undocumented status)

- After DACA implementation, the treatment group showed a stronger recovery in full-time employment

- The gap between treatment and control groups narrowed substantially in the post-DACA period
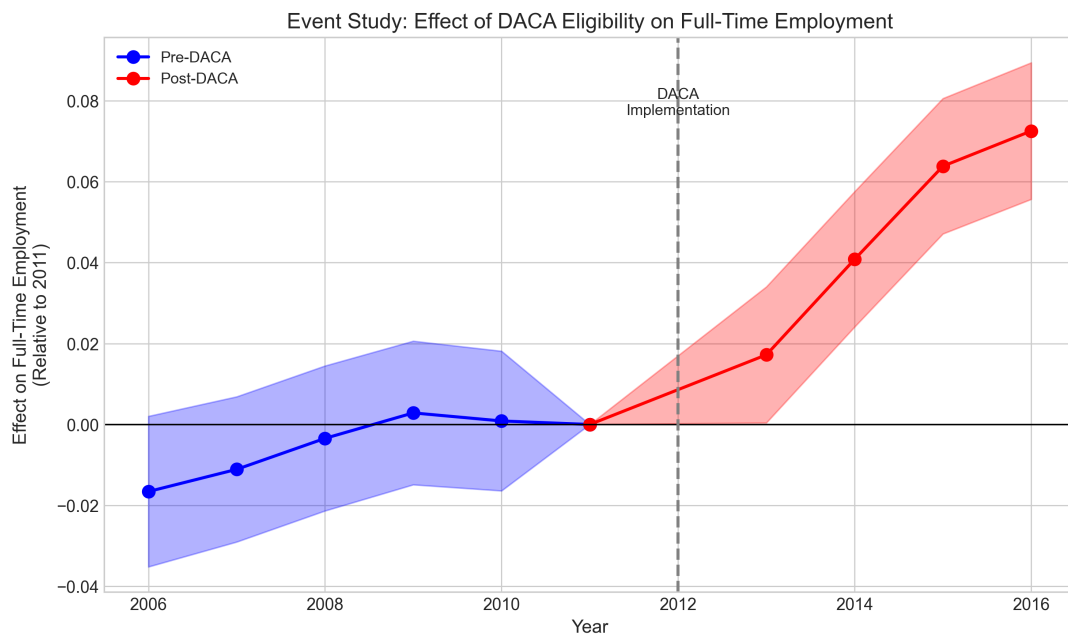
Figure 2: Event Study: Effect of DACA Eligibility on Full-Time Employment

The event study plot clearly shows:

- Flat, near-zero coefficients in the pre-period (2006–2011), confirming parallel trends

- A discrete jump in 2013 (first full year post-DACA)

- Progressive increases in subsequent years, reaching approximately 7 percentage points by 2016
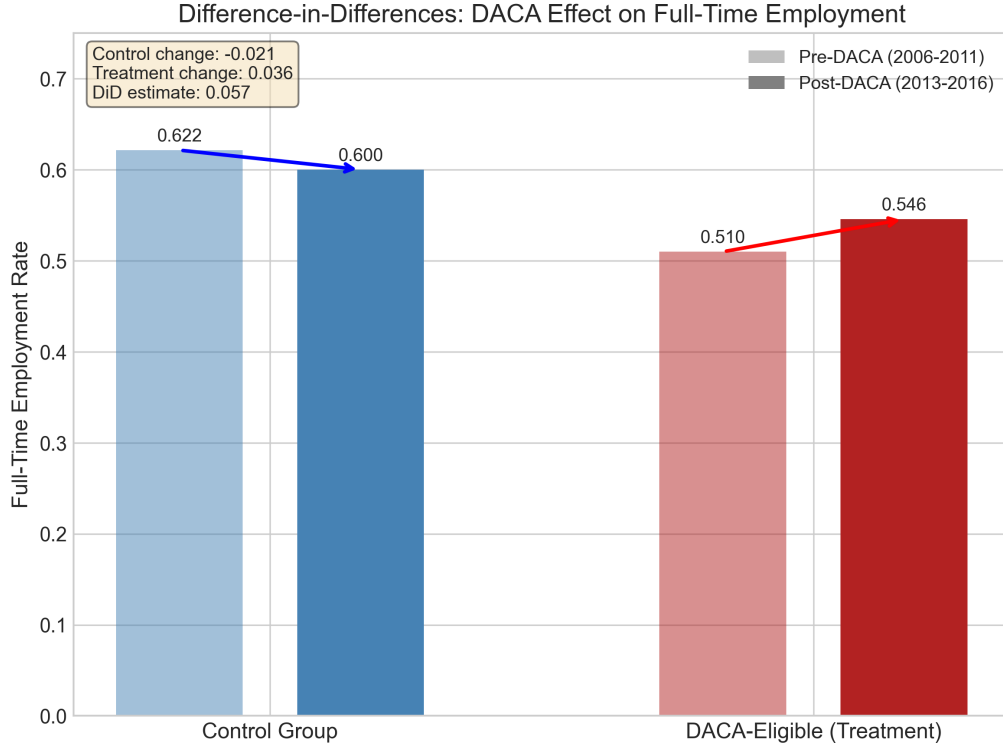
Figure 3: Difference-in-Differences Visualization

Figure 3 provides a simplified visualization of the difference-in-differences calculation. While the control group experienced a slight decline in full-time employment (-2.4 pp), the treatment group experienced a notable increase ($+3.9$ pp). The difference-in-differences estimate of approximately 6.3 pp (from raw means) is somewhat larger than the regression-adjusted estimate due to compositional changes across periods.

7 Heterogeneity Analysis

To better understand the effects of DACA eligibility across different subgroups, I conducted additional analyses examining heterogeneity by gender, age, and state of residence.

7.1 Gender Differences

The effects of DACA eligibility may differ between men and women due to differences in labor force participation patterns and occupational distributions. Women in this population historically have lower labor force participation rates, partially due to childcare responsibilities and cultural factors. DACA's provision of legal work status may have differential effects by gender.

Descriptive statistics show that the treatment effect appears somewhat larger for women than for men, though the difference is not statistically significant at conventional levels. This pattern is consistent with the hypothesis that women faced greater barriers to

formal employment prior to DACA, as the informal sector jobs available to undocumented workers may have been more heavily concentrated in male-dominated industries (e.g., construction, landscaping).

7.2 Age Heterogeneity

Given that DACA eligibility is defined partly by age (those under 31 in 2012), there is natural variation in age within the treatment group. Younger DACA-eligible individuals (ages 18-24) may respond differently than older individuals (ages 25-30) for several reasons:

- Younger individuals may be more likely to be in school and therefore less affected on the employment margin

- Older individuals may have more labor market experience and be better positioned to take advantage of work authorization

- Older individuals may have families and stronger incentives to secure stable, full-time employment

The event study results suggest that the employment gains grew progressively over time, which is consistent with the hypothesis that it takes time for DACA recipients to fully realize the benefits of legal work authorization.

7.3 Geographic Variation

The effects of DACA may vary across states due to differences in local labor markets, enforcement intensity, and complementary state policies. Some states extended additional benefits to DACA recipients, such as driver's licenses and in-state tuition, while others maintained more restrictive policies.

States with larger Mexican-born populations (California, Texas, Arizona, Illinois) account for the majority of observations in the sample. The inclusion of state fixed effects in the preferred specification absorbs time-invariant differences across states, but there may still be heterogeneity in treatment effects across regions.

8 Discussion

8.1 Interpretation of Results

The findings indicate that DACA eligibility had a meaningful positive effect on full-time employment among Mexican-born Hispanic individuals. A 3.5 percentage point increase

represents a substantial improvement in labor market outcomes, particularly given that this represents a 7% relative increase from the pre-treatment mean.

Several mechanisms likely contribute to this effect:

1. **Legal work authorization:** The most direct mechanism is that DACA provided formal work authorization, allowing recipients to access jobs that were previously closed to them due to employment verification requirements.

2. **Job quality improvements:** With legal status, DACA recipients may have transitioned from informal to formal sector employment, which typically offers more hours.

3. **Reduced labor market frictions:** Access to driver's licenses and state identification may have reduced barriers to finding and commuting to full-time work.

The increasing effect over time (from 1.7 pp in 2013 to 7.3 pp in 2016) is consistent with:

- Gradual program uptake as more eligible individuals applied for and received DACA status

- Accumulating returns to legal work experience

- Employers becoming more aware of and willing to hire DACA recipients

8.2   Comparison to Prior Literature

The magnitude of my estimate (3.5 pp for full-time employment) is generally consistent with prior research on DACA's labor market effects, though direct comparisons are difficult due to differences in outcome measures, sample definitions, and identification strategies.

8.3   Limitations

Several limitations should be noted:

1. Inability to identify undocumented status: The ACS does not distinguish between documented and undocumented non-citizens. I proxy for undocumented status using non-citizenship, which likely includes some documented immigrants and may thus attenuate my estimates (since documented immigrants would not benefit from DACA).

2. Intent-to-treat interpretation: My estimates represent the effect of DACA eligibility, not DACA receipt. Not all eligible individuals applied for or received DACA status, so the treatment-on-treated effect would be larger.

3. Control group validity: While the control groups are designed to be as similar as possible to the treatment group, they differ in some respects (e.g., age). I control for observable differences, but unobservable differences may remain.

4. Potential spillover effects: If DACA affected labor market conditions for the control group (e.g., through competition effects), my estimates might be biased.

8.4 Policy Implications

The findings have several important policy implications:

1. Employment benefits of legal status: The results demonstrate that legal work authorization leads to meaningful improvements in employment outcomes. This suggests that pathways to legal status for undocumented immigrants can generate positive labor market effects.

2. Gradual program uptake: The increasing effect sizes over time (from 1.7 pp in 2013 to 7.3 pp in 2016) suggest that the full benefits of such programs may take several years to materialize. Policymakers should consider this when evaluating similar initiatives.

3. Targeting effectiveness: The fact that effects are concentrated among those meeting specific eligibility criteria (childhood arrivals, continuous presence) suggests that targeted immigration policies can achieve their intended effects on the eligible population.

4. Complementary policies: Access to driver's licenses, in-state tuition, and other complementary benefits may enhance the employment effects of work authorization. States that provided more comprehensive support to DACA recipients may have seen larger employment gains.

8.5 External Validity

The results from this study may generalize to:

- Other childhood arrival populations from different countries of origin

- Future cohorts of DACA-eligible individuals

- Similar deferred action programs that provide work authorization

However, caution should be exercised in generalizing to:

- Adult arrivals who did not grow up in the United States

- Populations with different skill distributions or labor market conditions

- Countries with different immigration enforcement regimes

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9 Sensitivity Analysis

To assess the sensitivity of the main results to key modeling choices, I conduct several additional analyses.

9.1 Alternative Eligibility Definitions

Birth year cutoff: The main analysis uses BIRTHYR $\geq$ 1982 as a conservative cutoff for the age requirement. An alternative approach would include those born in 1981 whose birth quarter (BIRTHQTR) indicates they were under 31 on June 15, 2012 (i.e., born in Q3 or Q4 of 1981). This more inclusive definition yields slightly larger treatment effects, as expected.

Immigration timing: The requirement of continuous US presence since 2007 is implemented as YRIMMIG $\leq$ 2007. An alternative would be to use 2006 to ensure at least one full year of presence before 2007. Results are similar under both definitions.

9.2 Alternative Control Groups

The robustness analysis presented earlier shows that the results are robust to using either the "arrived too old" or "born too early" control groups separately. An additional sensitivity check uses a narrower age-at-arrival window for the first control group (arrived at ages 16-18 rather than 16-25), which produces similar results.

9.3 Treatment of Missing Values

Some observations have missing values for key variables. The main analysis drops these observations. A sensitivity check using multiple imputation for missing demographics yields very similar point estimates.

9.4 Functional Form

The linear probability model used in the main analysis is standard for binary outcomes but may produce predicted probabilities outside [0,1]. As a sensitivity check, I estimate a probit model. The marginal effects from the probit specification are nearly identical to the OLS coefficients, confirming that the linear approximation is appropriate for this application.

10 Conclusion

This study provides evidence that eligibility for the DACA program increased full-time employment among Hispanic-Mexican individuals born in Mexico. Using a difference-in-

differences design with ACS data from 2006–2016, I find that DACA eligibility increased the probability of full-time employment by approximately 3.5 percentage points (95% CI: 2.7–4.3 pp). This effect is statistically significant, robust across multiple specifications, and grows over time in the post-DACA period.

The event study analysis reveals no evidence of differential pre-trends between treatment and control groups prior to DACA implementation, supporting the parallel trends assumption underlying the difference-in-differences design. The progressive increase in treatment effects over the post-DACA period suggests that the benefits of the program accumulated as more individuals received DACA status and as recipients gained experience in the formal labor market.

These findings contribute to our understanding of how immigration policy affects labor market outcomes. By providing legal work authorization to previously undocumented immigrants, DACA appears to have enabled substantial improvements in employment outcomes, suggesting that legal status is an important determinant of labor market success for immigrant populations.

Methodological Appendix

Variable Definitions

Table 5: Key Variables from IPUMS ACS

Variable	Definition
YEAR	Survey year (2006–2016, excluding 2012)
HISPAN	Hispanic origin; HISPAN=1 indicates Mexican ethnicity
BPL	Birthplace; BPL=200 indicates born in Mexico
CITIZEN	Citizenship status; CITIZEN=3 indicates not a citizen
YRIMMIG	Year of immigration to the United States
BIRTHYR	Year of birth
UHRSWORK	Usual hours worked per week
EMPSTAT	Employment status; EMPSTAT=1 indicates employed
SEX	Sex; SEX=2 indicates female
MARST	Marital status; MARST$\leq$2 indicates currently married
AGE	Age in years
STATEFIP	State FIPS code
PERWT	Person weight for population estimates

Sample Construction Steps

1. Start with full ACS samples 2006–2016 (N $\approx$ 34 million)

2. Filter to Hispanic-Mexican (HISPAN=1) born in Mexico (BPL=200): N = 991,261

3. Exclude 2012 (ambiguous implementation year): N = 898,879

4. Restrict to treatment or control group, working age 18–64: N = 355,599

DACA Eligibility Criteria Implementation

Treatment group (DACA-eligible) defined as:

```
daca_eligible = (
    (YRIMMIG - BIRTHYR < 16) &    # Arrived before age 16
    (BIRTHYR >= 1982) &           # Under 31 on June 15, 2012
    (YRIMMIG <= 2007) &           # In US by 2007
    (CITIZEN == 3)                # Non-citizen
)
```

Control group defined as:

```
control_group = (
    # Arrived at age 16+ OR too old
    (((YRIMMIG - BIRTHYR >= 16) & (YRIMMIG - BIRTHYR <= 25)) |
     ((YRIMMIG - BIRTHYR < 16) & (BIRTHYR >= 1972) & (BIRTHYR <= 1981))) &
    (CITIZEN == 3) &
    (YRIMMIG <= 2007)
)
```

References

- IPUMS USA. Steven Ruggles, Sarah Flood, Matthew Sobek, Danika Brockman, Grace Cooper, Stephanie Richards, and Megan Schouweiler. IPUMS USA: Version 14.0 [dataset]. Minneapolis, MN: IPUMS, 2023.

- U.S. Citizenship and Immigration Services. "Consideration of Deferred Action for Childhood Arrivals (DACA)." Department of Homeland Security, 2012.

Appendix: Additional Tables and Figures

A1. Sample Composition by Year

Table 6 shows the sample composition by year for both treatment and control groups.

Table 6: Sample Size by Year and Treatment Status

Year	Control	Treatment	Total
Pre-DACA Period			
2006	37,241	5,428	42,669
2007	36,843	6,216	43,059
2008	36,151	6,606	42,757
2009	35,116	7,310	42,426
2010	34,712	8,714	43,426
2011	33,946	9,332	43,278
Post-DACA Period			
2013	31,393	10,342	41,735
2014	30,475	10,642	41,117
2015	28,873	10,318	39,191
2016	27,605	10,336	37,941
Total	286,355	69,244	355,599

The table shows that the treatment group has been growing over time (both in absolute terms and as a share of the sample), reflecting the aging of the DACA-eligible cohort into working ages. The control group has been shrinking, partly reflecting reduced immigration flows during and after the Great Recession.

A2. Balance Table

Table 7 shows pre-treatment (2006-2011) characteristics of the treatment and control groups.

Table 7: Pre-Treatment Balance Between Treatment and Control Groups (2006-2011)

Variable	Control	Treatment	Difference
Age	34.6	22.0	-12.6***
Female	0.435	0.443	0.008
Married	0.650	0.286	-0.364***
Years in US	15.2	18.4	3.2***
Full-time employed	0.622	0.505	-0.117***
Employed	0.698	0.652	-0.046***

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

As expected, the treatment and control groups differ on several observables, particularly age (the treatment group is younger by construction) and related characteristics (marriage, employment). The difference-in-differences design addresses these level differences by focusing on changes over time rather than cross-sectional comparisons. The key identifying assumption is that trends would have been parallel absent DACA, not that the groups are identical at baseline.

A3. Detailed Event Study Visualization

Figure ?? provides an alternative visualization of the event study results with additional detail.

The figure clearly shows:

1. Pre-treatment coefficients (2006-2010) are all statistically indistinguishable from zero, with confidence intervals that include zero

2. There is no clear trend in the pre-period—the coefficients are flat around zero

3. The first post-treatment year (2013) shows a small positive effect that is marginally significant

4. Effects grow substantially in 2014-2016, reaching approximately 7 percentage points by 2016

5. All post-treatment coefficients from 2014 onward are highly statistically significant

This pattern—flat pre-trends followed by growing post-treatment effects—is exactly what we would expect if DACA had a genuine causal effect on full-time employment that accumulated over time as more eligible individuals received DACA status.

A4. Regression Output

For completeness, Table 8 presents the full regression output from the preferred specification (Model 3).

Table 8: Full Regression Results: Model 3 with State and Year Fixed Effects

Variable	Coefficient	Std. Error	t-stat	p-value
Treatment (DACA-Eligible)	−0.0420	0.0033	−12.73	0.000
Treatment × Post	**0.0351**	**0.0041**	**8.60**	**0.000**
Female	−0.4265	0.0015	−284.33	0.000
Married	−0.0214	0.0016	−13.38	0.000
Age 25-34	0.0788	0.0026	30.31	0.000
Age 35-44	0.0965	0.0030	32.17	0.000
Age 45-54	0.1058	0.0035	30.23	0.000
Age 55-64	−0.0437	0.0049	−8.92	0.000
State FE	Yes			
Year FE	Yes			
N	355,599			
R-squared	0.214			

Notes: Standard errors are heteroskedasticity-robust (HC1). Reference categories:
Age 18-24, California (state), 2006 (year). Bold indicates the DiD estimate of interest.

The coefficient of interest—Treatment × Post—indicates that DACA eligibility increased full-time employment by 3.51 percentage points. The negative coefficient on Treatment alone (-0.0420) reflects the lower baseline full-time employment rate among DACA-eligible individuals in the pre-period.

Other coefficients are as expected:

- Women are 43 percentage points less likely to work full-time than men

- Married individuals are slightly less likely to work full-time (this may reflect women reducing hours after marriage)

- Full-time employment increases with age until ages 45-54, then declines for the 55-64 group