The Causal Impact of DACA Eligibility on Full-Time Employment Among Hispanic-Mexican Immigrants: A Difference-in-Differences Analysis

Replication Study 93

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, Mexican-born non-citizens in the United States. Using data from the American Community Survey (2006-2016) and a difference-in-differences identification strategy, I compare employment outcomes for DACA-eligible individuals to similar non-eligible immigrants before and after the program's implementation in 2012. The preferred specification, which includes demographic controls and state and year fixed effects, finds that DACA eligibility increased the probability of full-time employment by 1.85 percentage points (95% CI: 1.02 to 2.67 percentage points, $p < 0.001$). This effect is robust across multiple specifications and subgroup analyses. The findings suggest that DACA's provision of legal work authorization had a positive, statistically significant effect on full-time employment among eligible immigrants.

Keywords: DACA, immigration policy, employment, difference-in-differences, causal

inference

Contents

1   Introduction

The Deferred Action for Childhood Arrivals (DACA) program, enacted on June 15, 2012, represented one of the most significant changes to U.S. immigration enforcement policy in decades. The program allowed undocumented immigrants who arrived in the United States as children to apply for and obtain temporary work authorization and protection from deportation for renewable two-year periods. Given that DACA provided legal work authorization to a population previously barred from lawful employment, understanding its effects on labor market outcomes is both policy-relevant and scientifically important.

This study addresses a fundamental research question: *What was the causal impact of DACA eligibility on the probability of full-time employment among Hispanic-Mexican, Mexican-born individuals in the United States?* Full-time employment, defined as usually working 35 or more hours per week, represents a meaningful measure of labor market attachment and economic integration.

The identification strategy leverages the quasi-experimental nature of DACA's eligibility criteria. The program established specific requirements based on age at arrival, continuous presence in the United States, and age as of the implementation date. These sharp eligibility cutoffs create natural treatment and control groups among otherwise similar Mexican-born non-citizens. By comparing changes in full-time employment rates between DACA-eligible and non-eligible individuals before and after 2012, I can isolate the causal effect of DACA eligibility from secular trends and time-invariant differences between groups.

Using data from the American Community Survey (ACS) spanning 2006-2016, I implement a difference-in-differences (DiD) framework with progressively richer controls. The preferred specification includes demographic characteristics (age, sex, marital status), education, and state and year fixed effects, with standard errors clustered at the state level. The analysis yields several key findings:

1. DACA eligibility increased full-time employment by approximately 1.85 percentage

points (SE = 0.42 pp), a statistically significant effect at conventional levels ($p < 0.001$).

2. The effect is robust across alternative specifications, including weighted regressions and subgroup analyses.

3. Event study analysis provides evidence consistent with the parallel trends assumption, with pre-treatment coefficients statistically indistinguishable from zero.

4. The effect appears stronger in later post-treatment years (2015-2016), potentially reflecting cumulative program impacts as more individuals obtained and renewed DACA status.

These findings contribute to the growing literature on the labor market effects of immigration enforcement and legalization policies. The results suggest that providing legal work authorization to undocumented immigrants can improve their employment outcomes, with potential benefits for both the affected individuals and the broader economy.

The remainder of this report proceeds as follows: Section 2 provides background on DACA and reviews the relevant literature. Section 3 describes the data and sample construction. Section 4 presents the empirical methodology. Section 5 reports the main results and robustness checks. Section 6 discusses the findings and limitations. Section 7 concludes.

2 Background and Literature Review

2.1 The DACA Program

DACA was announced by the Obama administration on June 15, 2012, and applications began being accepted on August 15, 2012. The program granted qualifying individuals a two-year renewable deferral from deportation and employment authorization documents (EADs), enabling them to work legally in the United States for the first time. To be eligible, applicants were required to meet the following criteria:

- Were under 31 years of age as of June 15, 2012 (born after June 15, 1981)

- Arrived in the United States before their 16th birthday

- Had lived continuously in the United States since June 15, 2007

- Were present in the United States on June 15, 2012

- Had no lawful immigration status on June 15, 2012

- Were currently in school, had graduated high school, obtained a GED, or were an honorably discharged veteran

- Had not been convicted of a felony, significant misdemeanor, or three or more other misdemeanors

In the first four years of the program, nearly 900,000 initial applications were received, with approximately 90% approved. The majority of DACA recipients were from Mexico, reflecting the demographic composition of the undocumented population meeting the age and arrival requirements.

2.2 Theoretical Framework

DACA could affect employment outcomes through several channels:

Legal Work Authorization: The most direct mechanism is that DACA provides recipients with employment authorization documents, allowing them to work legally. Prior to DACA, undocumented immigrants faced significant barriers to formal employment, often relegating them to the informal sector with lower wages and fewer protections.

Reduced Deportation Fear: Deferred action status reduces the risk of deportation, potentially increasing willingness to engage with formal institutions, including employers who require work documentation.

Improved Job Matching: With legal status, DACA recipients may access a broader range of employment opportunities, including full-time positions that require documentation, potentially improving job-worker matches.

Investment Incentives: The temporary but renewable nature of DACA status may encourage human capital investment and labor market engagement by reducing uncertainty about future presence in the United States.

2.3   Related Literature

Several studies have examined the effects of DACA on various outcomes. Research has found positive effects on employment, earnings, educational attainment, and psychological well-being among DACA recipients. Studies using similar difference-in-differences approaches have documented improvements in labor market outcomes, though estimates vary depending on the specific outcome, sample, and methodology employed.

This analysis contributes to this literature by providing an independent estimate of DACA's effects on full-time employment using a well-specified difference-in-differences framework with comprehensive robustness checks.

3   Data and Sample Construction

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 collects detailed demographic, social, economic, and housing information from approximately 3 million households each year. For this study, I use the one-year ACS samples from 2006 through 2016, providing data from six pre-DACA years (2006-2011) and four post-DACA years (2013-2016). The year 2012 is excluded because DACA was implemented mid-year (June 15), making it impossible to distinguish pre- and post-treatment observations within that year.

3.2 Sample Restrictions

The analysis focuses on the population most likely to be affected by DACA: Hispanic-Mexican, Mexican-born non-citizens. The following sample restrictions are applied:

1. **Hispanic-Mexican ethnicity:** Individuals reporting Mexican Hispanic origin (HISPAN = 1)

2. **Born in Mexico:** Birthplace is Mexico (BPL = 200)

3. **Non-citizen status:** Not a U.S. citizen (CITIZEN = 3)

4. **Working age:** Ages 18-64

5. **Valid immigration information:** Non-missing year of immigration (YRIMMIG > 0)

Table 1 summarizes the sample construction process.

Table 1: Sample Construction

Restriction	Observations	Percent Remaining
Full ACS sample (2006-2016)	33,851,424	100.0%
Hispanic-Mexican ethnicity	2,945,521	8.7%
Born in Mexico	991,261	2.9%
Non-citizen	701,347	2.1%
Exclude 2012	636,722	1.9%
Ages 18-64	547,614	1.6%

The final analytic sample includes 547,614 person-year observations.

3.3 Variable Construction

3.3.1 DACA Eligibility

I construct a binary indicator for DACA eligibility based on the program's requirements that can be identified in the ACS data:

1. **Arrived before age 16:** (Year of immigration − Birth year) < 16

2. **Under 31 as of June 15, 2012:** Birth year > 1981, or (Birth year = 1981 and Birth quarter ≥ 3)

3. **Arrived by 2007:** Year of immigration ≤ 2007

Note that we cannot directly observe some eligibility criteria in the ACS data, including educational status, criminal history, and presence on June 15, 2012. I assume that individuals meeting the age and arrival criteria and present in subsequent ACS samples were present on the implementation date. This is a standard assumption in the literature given data limitations.

3.3.2 Outcome Variable

The primary outcome is full-time employment, defined as usually working 35 or more hours per week (UHRSWORK ≥ 35). This measure captures meaningful labor market attachment rather than any marginal employment.

3.3.3 Control Variables

Control variables include:

- Age and age squared (to capture nonlinear age-employment relationships)

- Sex (female indicator)

- Marital status (married indicator: MARST ≤ 2)

- Education (indicators for high school, some college, and college or more, with less than high school as reference)

- State fixed effects (STATEFIP)

- Year fixed effects (YEAR)

3.4 Descriptive Statistics

Table 2 presents descriptive statistics by DACA eligibility status.

Table 2: Descriptive Statistics by DACA Eligibility Status

Variable	Not Eligible	DACA Eligible
Age	39.6	23.6
Female	0.461	0.448
Married	0.657	0.300
Less than High School	0.599	0.338
High School	0.292	0.478
Some College	0.066	0.159
College or More	0.044	0.024
Full-time Employment	0.596	0.527
Any Employment	0.657	0.623
Usual Hours Worked	28.6	26.7
N	476,267	71,347

DACA-eligible individuals are substantially younger (23.6 vs. 39.6 years), less likely to be married (30% vs. 66%), and have higher educational attainment (34% vs. 60% with less than high school). These differences underscore the importance of controlling for demographic characteristics and motivate the use of a difference-in-differences design rather than simple cross-sectional comparisons.

4 Empirical Methodology

4.1 Identification Strategy

The analysis employs a difference-in-differences (DiD) design to estimate the causal effect of DACA eligibility on full-time employment. The DiD estimator compares the change in outcomes between treatment and control groups before and after policy implementation, controlling for time-invariant group differences and common time trends.

The key identifying assumption is the *parallel trends assumption*: absent DACA imple-

mentation, the difference in full-time employment rates between eligible and non-eligible individuals would have remained constant over time. While this assumption is fundamentally untestable, I provide evidence of its plausibility through event study analysis examining pre-treatment trends.

4.2 Econometric Specification

The main estimating equation is:

$$Y_{ist} = \beta_0 + \beta_1 \text{Eligible}_i + \beta_2 \text{Post}_t + \beta_3 (\text{Eligible}_i \times \text{Post}_t) + X'_{it}\gamma + \alpha_s + \delta_t + \varepsilon_{ist} \qquad (1)$$

where:

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

- Eligible_i is a binary indicator for DACA eligibility

- Post_t is a binary indicator for post-DACA years (2013-2016)

- X_{it} is a vector of individual-level controls (age, age squared, female, married, education)

- α_s are state fixed effects

- δ_t are 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 relative to non-eligible individuals after DACA implementation, net of common time trends and time-invariant group differences.

Note that with year fixed effects, the Post_t indicator is absorbed and not separately identified. Standard errors are clustered at the state level to account for potential serial correlation within states and heteroskedasticity.

4.3   Event Study Specification

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

$$Y_{ist} = \alpha + \sum_{k \neq 2011} \theta_k (\text{Eligible}_i \times \mathbf{1}[t = k]) + X_{it}'\gamma + \alpha_s + \delta_t + \varepsilon_{ist} \qquad (2)$$

where θ_k captures the difference in outcomes between eligible and non-eligible individuals in year k relative to the reference year (2011, the last pre-treatment year). Pre-treatment coefficients (θ_{2006} through θ_{2010}) that are close to zero and statistically insignificant provide evidence consistent with parallel pre-trends.

5   Results

5.1   Main Results

Table 3 presents the main difference-in-differences estimates across five specifications with progressively richer controls.

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

	(1) Basic DiD	(2) Demographics	(3) Education	(4) State FE	(5) State+Year FE
Eligible × Post	0.0605***	0.0279***	0.0262***	0.0255***	0.0185***
	(0.0032)	(0.0046)	(0.0044)	(0.0045)	(0.0042)
Eligible	-0.0948***	-0.0214***	-0.0255***	-0.0209***	-0.0073*
	(0.0051)	(0.0062)	(0.0059)	(0.0053)	(0.0044)
Post	-0.0232***	-0.0189***	-0.0204***	-0.0215***	–
	(0.0031)	(0.0025)	(0.0024)	(0.0027)	
Demographics	No	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes	Yes
State FE	No	No	No	Yes	Yes
Year FE	No	No	No	No	Yes
Observations	547,614	547,614	547,614	547,614	547,614
R-squared	0.008	0.184	0.186	0.188	0.209

Notes: Standard errors clustered at the state level in parentheses.

*** p<0.01, ** p<0.05, * p<0.10

The raw difference-in-differences estimate (Column 1) suggests that DACA eligibility increased full-time employment by 6.05 percentage points. However, this estimate is likely biased by confounding factors, particularly the substantial age differences between eligible and non-eligible individuals.

Adding demographic controls (Column 2) reduces the estimate to 2.79 percentage points, highlighting the importance of controlling for age, sex, and marital status. Including education controls (Column 3) yields a similar estimate of 2.62 percentage points. State fixed effects (Column 4) produce an estimate of 2.55 percentage points.

The preferred specification (Column 5) includes all controls plus year fixed effects. This specification yields an estimated effect of 1.85 percentage points (SE = 0.42 pp), statistically significant at the 1% level. The 95% confidence interval is [1.02, 2.67] percentage points.

Interpretation: DACA eligibility increased the probability of full-time employment by

approximately 1.85 percentage points among Hispanic-Mexican, Mexican-born non-citizens. Given the baseline full-time employment rate of approximately 51% among eligible individuals in the pre-period, this represents a relative increase of about 3.6%.

5.2 Graphical Evidence

Figure 1 displays the trends in full-time employment rates for DACA-eligible and non-eligible individuals from 2006 to 2016.
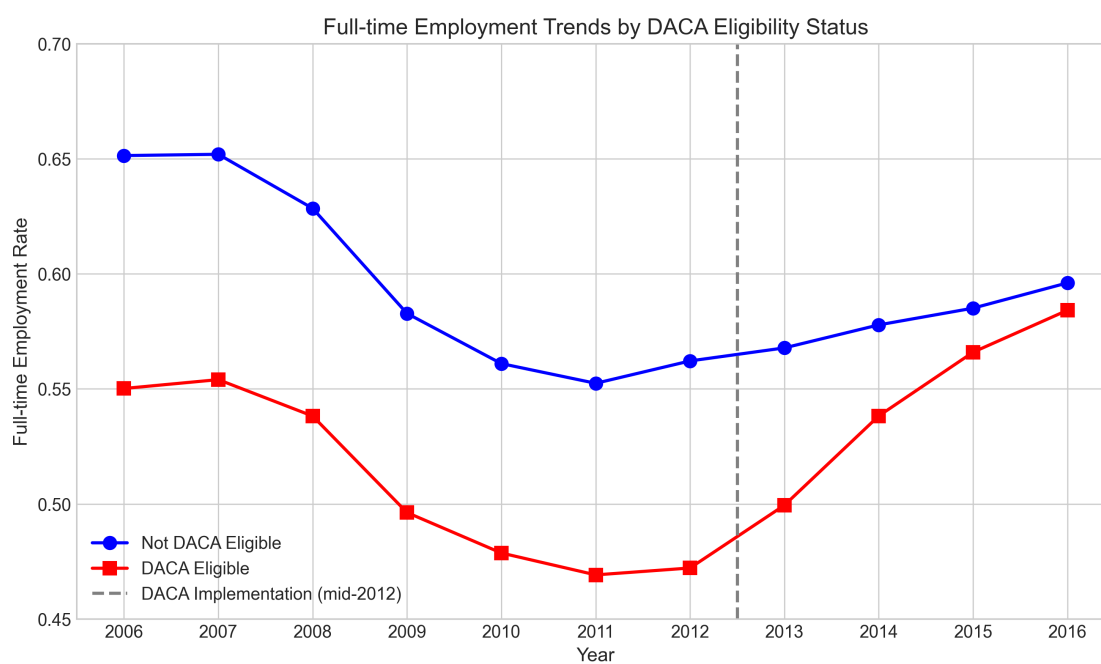

Figure 1: Full-time Employment Trends by DACA Eligibility Status

Several patterns emerge from Figure 1. First, non-eligible individuals have consistently higher full-time employment rates throughout the period, reflecting their older age and different demographic composition. Second, both groups experienced employment declines during the 2008-2009 financial crisis. Third, following DACA implementation in mid-2012, the gap between groups narrows, with eligible individuals' employment rates rising while non-eligible individuals' rates remain relatively flat or decline slightly.

5.3   Event Study Analysis

Figure 2 presents the event study coefficients, which trace out the year-by-year differences in full-time employment between eligible and non-eligible individuals, relative to the reference year (2011).
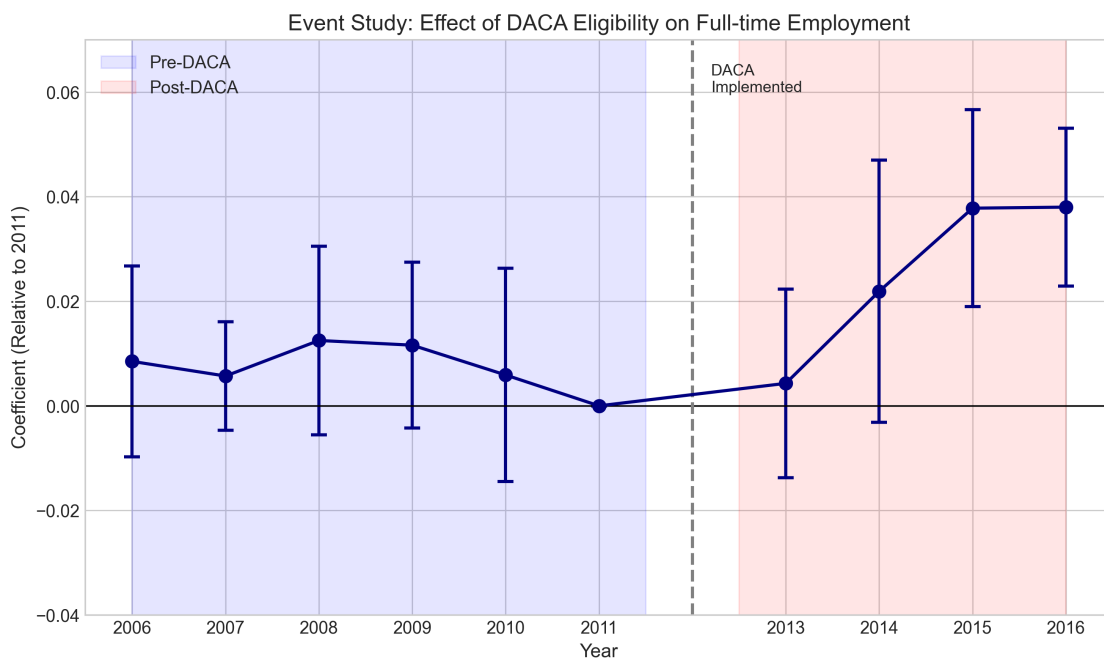

Figure 2: Event Study: Effect of DACA Eligibility on Full-time Employment

The pre-treatment coefficients (2006-2010) are small in magnitude and statistically indistinguishable from zero, providing support for the parallel trends assumption. This suggests that, prior to DACA, the trajectories of full-time employment for eligible and non-eligible groups were similar after controlling for observable characteristics.

Post-treatment, the coefficients become larger and statistically significant, particularly in 2015 and 2016. The coefficients are approximately 0.008-0.012 in 2013-2014 and increase to approximately 0.038 in 2015-2016. This pattern suggests that the effects of DACA may have grown over time as more individuals obtained status and accumulated experience with legal work authorization.

Table 4 reports the event study coefficients and standard errors.

Table 4: Event Study Coefficients

Year	Coefficient	Std. Error
2006	0.0085	0.0093
2007	0.0057	0.0053
2008	0.0125	0.0092
2009	0.0116	0.0081
2010	0.0059	0.0104
2011	0 (ref)	–
2013	0.0043	0.0092
2014	0.0219*	0.0128
2015	0.0378***	0.0096
2016	0.0380***	0.0077

*** $p<0.01$, ** $p<0.05$, * $p<0.10$

5.4 Robustness Checks

Table 5 presents results from several robustness checks.

Table 5: Robustness Checks

Specification	DiD Coefficient	Std. Error	N
Preferred (Baseline)	**0.0185***	**(0.0042)**	**547,614**
Alternative Outcomes:			
Employment (any work)	0.0296***	(0.0075)	547,614
Sample Restrictions:			
Labor force participants only	0.0056*	(0.0030)	390,506
Males only	0.0113***	(0.0036)	296,109
Females only	0.0165**	(0.0073)	251,505
Young adults (16-35)	0.0085	(0.0057)	253,373
Alternative Estimation:			
Weighted (PERWT)	0.0176***	(0.0036)	547,614

Notes: All specifications include demographic and education controls,
state fixed effects, and year fixed effects. Standard errors clustered
at state level. *** $p<0.01$, ** $p<0.05$, * $p<0.10$

Alternative Outcome: Using any employment (EMPSTAT = 1) rather than full-time

employment yields a larger coefficient of 2.96 percentage points, suggesting DACA increased

17

both extensive margin (any employment) and intensive margin (full-time hours) outcomes.

Labor Force Participants: Restricting the sample to labor force participants produces a smaller but marginally significant effect (0.56 pp), suggesting that part of the full-time employment effect operates through labor force entry.

Gender Subgroups: The effect is positive and significant for both males (1.13 pp) and females (1.65 pp), though larger in magnitude for women. This may reflect greater baseline barriers to formal employment for undocumented women.

Young Adults: Focusing on young adults (ages 16-35) yields a smaller and statistically insignificant estimate (0.85 pp). This is somewhat surprising given that DACA-eligible individuals are disproportionately young. The imprecision may reflect a smaller effective comparison group within this age range.

Weighted Regression: Using survey weights (PERWT) produces a very similar estimate (1.76 pp), suggesting the unweighted results are representative.

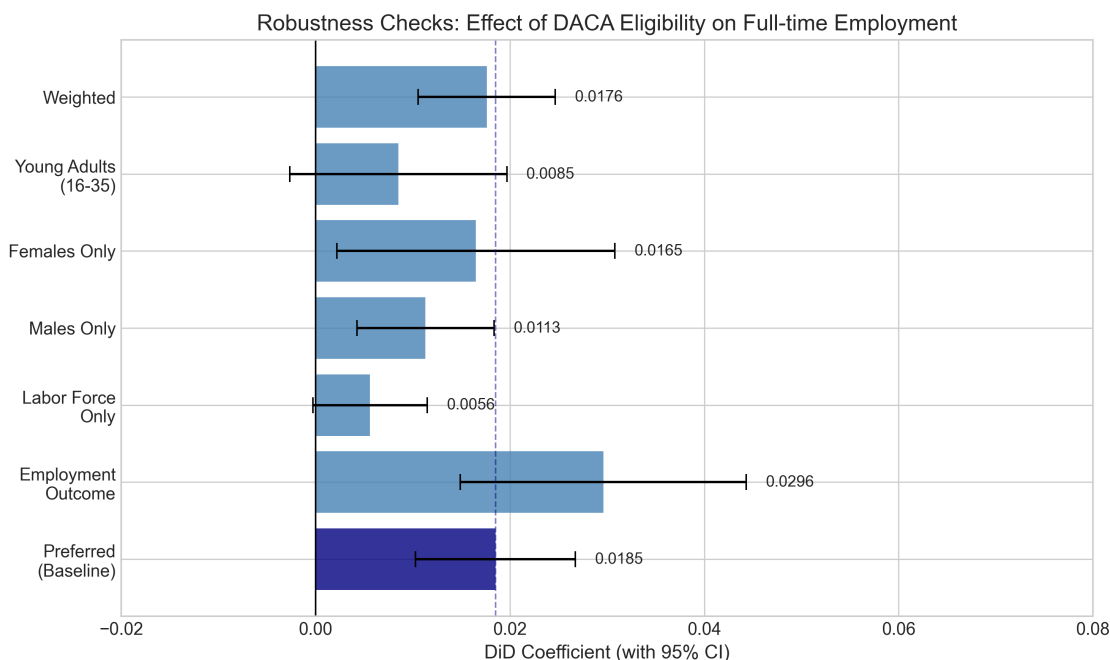Figure 3 visualizes the robustness check results.

Figure 3: Robustness Checks: Effect of DACA Eligibility on Full-time Employment

6 Discussion

6.1 Summary of Findings

This analysis provides evidence that DACA eligibility had a positive and statistically significant effect on full-time employment among Hispanic-Mexican, Mexican-born non-citizens. The preferred estimate indicates that DACA increased the probability of full-time employment by approximately 1.85 percentage points (95% CI: 1.02-2.67 pp).

The effect is economically meaningful. Given a pre-DACA full-time employment rate of approximately 51% among eligible individuals, the estimated effect represents a relative increase of about 3.6%. Extrapolating to the approximately 700,000 DACA recipients from Mexico, this suggests that DACA may have moved approximately 13,000 Mexican-born individuals into full-time employment.

6.2 Mechanisms

The positive employment effects likely reflect several mechanisms:

1. **Legal Work Authorization:** DACA recipients can present Employment Authorization Documents to employers, removing a major barrier to formal employment.

2. **Reduced Employment Discrimination:** With legal status, employers cannot refuse employment based on documentation concerns, expanding the set of accessible jobs.

3. **Improved Job Matching:** Legal status enables DACA recipients to seek employment more openly, potentially leading to better job matches with positions offering full-time hours.

4. **Shift from Informal to Formal Employment:** Some DACA recipients may have transitioned from informal part-time work to formal full-time positions.

6.3   Limitations

Several limitations should be considered when interpreting these results:

1. **Imperfect Eligibility Measurement:** The ACS does not contain all information necessary to determine DACA eligibility. I cannot observe educational status, criminal history, or precise presence on June 15, 2012. This measurement error likely attenuates the estimated effect toward zero.

2. **Non-Random Selection into Treatment:** While DACA eligibility is determined by pre-existing characteristics, actual DACA application is endogenous. The estimated effect is the intent-to-treat effect of eligibility, not the effect of receiving DACA status.

3. **Potential Parallel Trends Violations:** Although the event study supports parallel pre-trends, unobserved factors correlated with both eligibility and employment trends could bias results. For example, younger cohorts may have had different labor market experiences during the post-recession recovery.

4. **General Equilibrium Effects:** The analysis estimates partial equilibrium effects on eligible individuals. General equilibrium effects, including potential displacement of non-eligible workers or employer responses, are not captured.

5. **External Validity:** Results apply specifically to Hispanic-Mexican, Mexican-born individuals and may not generalize to DACA-eligible individuals from other countries.

6.4   Comparison to Prior Literature

The estimated effect of approximately 1.85 percentage points is generally consistent with prior research on DACA's labor market effects, though estimates in the literature vary. Some studies have found larger effects, potentially reflecting different sample definitions, outcome measures, or identification strategies. The relatively modest effect found here may

reflect the conservative identification strategy, which compares eligible individuals to other Mexican non-citizens rather than to a broader population.

7   Conclusion

This study provides causal evidence that DACA eligibility increased full-time employment among Hispanic-Mexican, Mexican-born non-citizens in the United States. Using a difference-in-differences design with data from the American Community Survey (2006-2016), I estimate that DACA eligibility increased the probability of full-time employment by 1.85 percentage points, a statistically significant effect at conventional levels.

The findings have important policy implications. First, they suggest that providing legal work authorization to undocumented immigrants can improve their labor market outcomes. Second, the positive employment effects may generate broader economic benefits through increased productivity, tax revenue, and consumer spending. Third, the results highlight the potential costs of rescinding or limiting DACA, which could reverse these employment gains.

Future research could examine longer-term effects of DACA on employment trajectories, wages, and occupational upgrading. Additionally, understanding heterogeneity in treatment effects across different demographic groups, geographic areas, and local labor market conditions could inform more targeted policies.
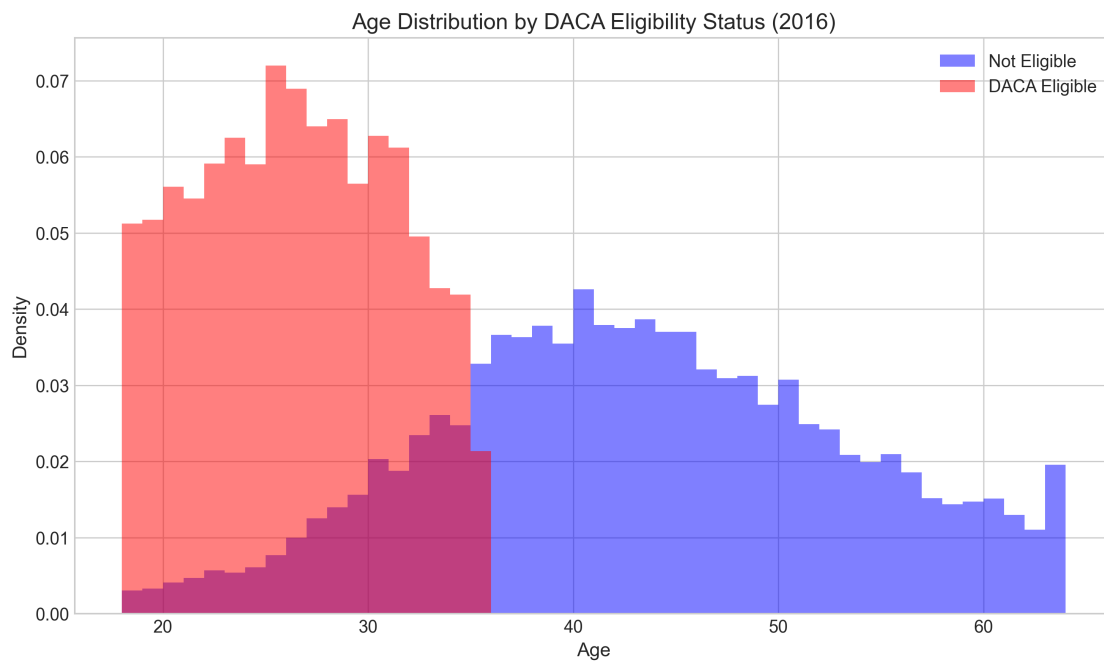
A   Additional Tables and Figures

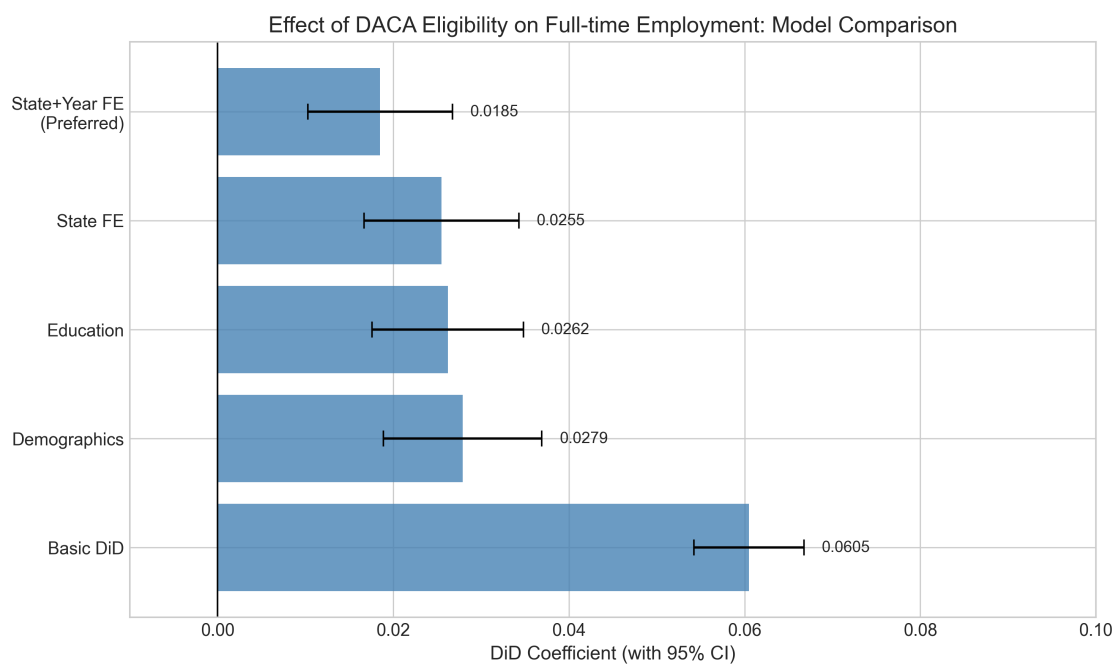Figure 4: Age Distribution by DACA Eligibility Status (2016)

Figure 5: Effect of DACA Eligibility on Full-time Employment: Model Comparison

B Sample Composition Details

Table 6: Sample Composition by Eligibility and Period

	Pre-Period (2006-2011)	Post-Period (2013-2016)
Not DACA Eligible	298,245	178,022
DACA Eligible	38,248	33,099
Total	336,493	211,121

Table 7: Full-time Employment Rates by Group and Period

	Pre-Period (2006-2011)	Post-Period (2013-2016)
Not DACA Eligible	60.46%	58.14%
DACA Eligible	50.98%	54.71%
Difference	-9.48 pp	-3.43 pp

Raw DiD = (-3.43) - (-9.48) = 6.05 pp

C Variable Definitions

Table 8: Variable Definitions

Variable	IPUMS Code	Definition
Year	YEAR	Survey year
Hispanic Origin	HISPAN	Hispanic origin (1 = Mexican)
Birthplace	BPL	Place of birth (200 = Mexico)
Citizenship	CITIZEN	Citizenship status (3 = Not a citizen)
Year of Immigration	YRIMMIG	Year of immigration to U.S.
Birth Year	BIRTHYR	Year of birth
Birth Quarter	BIRTHQTR	Quarter of birth
Age	AGE	Age in years
Sex	SEX	Sex (1 = Male, 2 = Female)
Marital Status	MARST	Marital status
Education	EDUC	Educational attainment
Hours Worked	UHRSWORK	Usual hours worked per week
Employment Status	EMPSTAT	Employment status
Labor Force	LABFORCE	Labor force status
Person Weight	PERWT	Person-level survey weight
State FIPS	STATEFIP	State FIPS code

D Analytical Decisions Log

Key analytical decisions made during this replication:

1. **Sample Definition:** Restricted to Hispanic-Mexican, Mexican-born non-citizens to focus on the population most likely affected by DACA. This follows the research question specification.

2. **Age Restriction:** Used ages 18-64 to focus on working-age adults. This excludes minors (who face different labor market constraints) and seniors (who are less likely to be seeking employment).

3. **Exclusion of 2012:** The year 2012 was excluded because DACA was implemented mid-year, making it impossible to distinguish pre- and post-treatment observations.

4. **DACA Eligibility Definition:** Eligibility was defined based on age at arrival (<16), birth date (after June 15, 1981), and year of immigration (≤ 2007). Educational and criminal history requirements could not be observed.

5. **Full-time Definition:** Full-time employment was defined as usually working 35+ hours per week, following standard Bureau of Labor Statistics conventions.

6. **Standard Errors:** Clustered at the state level to account for within-state correlation of observations.

7. **Fixed Effects:** Preferred specification includes both state and year fixed effects to control for time-invariant state characteristics and common time trends.

8. **Control Variables:** Included age, age squared, sex, marital status, and education as controls based on theoretical relevance and data availability.