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, Mexican-born individuals in the United States. Using American Community Survey data from 2006-2016 and a difference-in-differences design, I compare individuals aged 26-30 at DACA implementation (eligible) to those aged 31-35 (ineligible due to age). The preferred specification indicates that DACA eligibility increased the probability of full-time employment by approximately 4.5 percentage points (95% CI: 2.5 to 6.5 pp), representing a statistically significant effect. This finding is robust to alternative specifications, demographic controls, and various robustness checks. The results suggest that legal work authorization substantially improves formal labor market outcomes for affected individuals.

Contents

1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, implemented on June 15, 2012, represented a significant shift in U.S. immigration policy. The program allowed qualifying undocumented immigrants who arrived as children to apply for temporary protection from deportation and, critically, legal work authorization. This study examines whether DACA eligibility causally affected the probability of full-time employment among the target population.

1.1 Research Question

Among ethnically Hispanic-Mexican Mexican-born individuals 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)?

1.2 Program Background

DACA eligibility required individuals to meet several criteria:

- Arrived in the United States before their 16th birthday
- Had not yet reached their 31st birthday as of June 15, 2012
- Lived continuously in the US since June 15, 2007
- Were present in the US on June 15, 2012
- Did not have lawful immigration status at that time

The program offered two-year renewable work authorization and protection from deportation. Applications began on August 15, 2012, with approximately 900,000 initial applications received in the first four years, about 90% of which were approved. While not limited to any national origin, the vast majority of eligible individuals were from Mexico due to patterns of undocumented immigration.

1.3 Identification Strategy

This study employs a difference-in-differences (DiD) design exploiting the age-based eligibility cutoff. Individuals who were ages 26-30 as of June 15, 2012 comprise the treatment group, as they would have been eligible for DACA (assuming they met other criteria). Those ages 31-35 at the same date form the control group—they would have been eligible but for exceeding the age limit.

The key identifying assumption is that, absent DACA implementation, the treatment and control groups would have experienced parallel trends in full-time employment. I examine this assumption using pre-treatment data.

2 Data and Sample Construction

2.1 Data Source

The analysis uses data from the American Community Survey (ACS) as provided by IPUMS USA. The sample includes ACS one-year files from 2006 through 2016, excluding the year 2012 (when DACA was implemented mid-year, making it impossible to distinguish pre- and post-treatment observations).

2.2 Sample Selection

The analytic sample was constructed through the following sequential filters:

Table 1: Sample Selection Process

Selection Criterion	Observations	Weighted N
Total ACS observations (2006-2016)	33,851,424	—
Hispanic-Mexican ethnicity (HISPAN=1)	—	—
AND Born in Mexico (BPL=200)	991,261	—
Non-citizen (CITIZEN=3)	701,347	—
Arrived before age 16	205,327	—
In US since 2007 or earlier (YRIMMIG≤2007)	195,023	—
Age 26-35 as of June 15, 2012	47,418	—
Excluding year 2012	43,238	6,000,418

2.3 Key Variables

2.3.1 Outcome Variable

The primary outcome is **full-time employment**, defined as usually working 35 or more hours per week (UHRSWORK $\geq$ 35). This binary indicator equals 1 for individuals working full-time and 0 otherwise.

2.3.2 Treatment Definition

The treatment indicator equals 1 for individuals in the treatment age group (26-30 as of June 15, 2012) and 0 for those in the control age group (31-35). Age as of June 15, 2012 is calculated from BIRTHYR and BIRTHQTR, accounting for whether the individual had already celebrated their birthday by mid-June:

- For those born in Q1 (Jan-Mar) or Q2 (Apr-Jun): Age = 2012 - BIRTHYR
- For those born in Q3 (Jul-Sep) or Q4 (Oct-Dec): Age = 2012 - BIRTHYR - 1

2.3.3 Post-Treatment Period

The post-treatment indicator equals 1 for observations in years 2013-2016 and 0 for years 2006-2011. Year 2012 is excluded from the analysis.

2.3.4 Control Variables

Demographic controls include:

- Gender (female indicator, SEX=2)
- Marital status (married indicator, MARST=1)
- Education: High school completion (EDUCD≥62), some college (EDUCD≥65)

2.4 DACA Eligibility Criteria Implementation

To identify potentially DACA-eligible individuals, I apply the following criteria using IPUMS variables:

1. **Hispanic-Mexican ethnicity**: HISPAN = 1
2. **Born in Mexico**: BPL = 200
3. **Undocumented status**: CITIZEN = 3 (not a citizen). Following the instructions, I assume non-citizens who have not received immigration papers are undocumented.
4. **Arrived before age 16**: YRIMMIG - BIRTHYR < 16
5. **Continuous residence since 2007**: YRIMMIG ≤ 2007

Note that the ACS cannot directly distinguish documented from undocumented non-citizens. The assumption that all non-citizens without naturalization are undocumented introduces some measurement error, likely attenuating estimated effects.

3 Empirical Strategy

3.1 Difference-in-Differences Framework

The basic DiD model is:

$$Y_{it} = \alpha + \beta_1 \text{Treat}_i + \beta_2 \text{Post}_t + \beta_3 (\text{Treat}_i \times \text{Post}_t) + \epsilon_{it} \tag{1}$$

where:

- Y_{it} is the full-time employment indicator for individual i in year t
- $\text{Treat}_i = 1$ if individual is in the 26-30 age group
- $\text{Post}_t = 1$ if year ≥ 2013
- β_3 is the DiD coefficient of interest

3.2 Extended Specifications

I estimate four progressively richer specifications:

Model 1: Basic DiD (Equation 1)

Model 2: DiD with demographic controls

$$Y_{it} = \alpha + \beta_1 \text{Treat}_i + \beta_2 \text{Post}_t + \beta_3 (\text{Treat}_i \times \text{Post}_t) + \mathbf{X}_i' \gamma + \epsilon_{it} \tag{2}$$

Model 3: DiD with year fixed effects

$$Y_{it} = \alpha + \beta_1 \text{Treat}_i + \beta_3 (\text{Treat}_i \times \text{Post}_t) + \mathbf{X}_i' \gamma + \delta_t + \epsilon_{it} \tag{3}$$

Model 4: DiD with state and year fixed effects (preferred)

$$Y_{it} = \alpha + \beta_1 \text{Treat}_i + \beta_3 (\text{Treat}_i \times \text{Post}_t) + \mathbf{X}_i' \gamma + \delta_t + \theta_s + \epsilon_{it} \tag{4}$$

All regressions use ACS person weights (PERWT) and cluster standard errors at the state level to account for within-state correlation and policy variation.

3.3 Event Study Specification

To examine pre-trends and dynamics of the treatment effect, I estimate an event study model:

$$Y_{it} = \alpha + \sum_{k \neq 2011} \beta_k (\text{Treat}_i \times \mathbf{1}[\text{Year} = k]) + \mathbf{X}_i' \gamma + \delta_t + \epsilon_{it} \tag{5}$$

where 2011 serves as the reference year. The β_k coefficients trace out the treatment-control difference in each year relative to 2011.

4 Results

4.1 Descriptive Statistics

Table 2 presents descriptive statistics by treatment group and time period.

Table 2: Descriptive Statistics by Group and Period

	Control (Ages 31-35)		Treatment (Ages 26-30)	
	Pre-DACA	Post-DACA	Pre-DACA	Post-DACA
Full-time employment rate	0.646	0.614	0.615	0.634
Usual hours worked	30.8	29.4	29.6	30.3
Mean age	29.9	35.9	24.7	30.7
Female (%)	43.4	45.2	43.8	44.1
Observations	11,683	6,085	16,694	8,776
Weighted population	1,631,151	845,134	2,280,009	1,244,124

4.2 Raw Difference-in-Differences

Using population-weighted means, the raw DiD estimate is:

Table 3: Raw Difference-in-Differences Calculation

	Pre-DACA	Post-DACA	Difference
Treatment (26-30)	0.6305	0.6597	+0.0292
Control (31-35)	0.6731	0.6433	-0.0299
Difference-in-Differences			**0.0590**

The treatment group experienced a 2.9 percentage point increase in full-time employment after DACA, while the control group experienced a 3.0 percentage point decrease. The raw DiD is 5.9 percentage points.

4.3 Regression Results

Table 4 presents the DiD estimates across specifications.

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

	(1) Basic DiD	(2) + Demographics	(3) + Year FE	(4) + State FE
Treatment × Post	0.0590***	0.0472***	0.0456***	0.0449***
	(0.0069)	(0.0094)	(0.0097)	(0.0101)
95% CI	[0.046, 0.072]	[0.029, 0.066]	[0.027, 0.065]	[0.025, 0.065]
Treatment	-0.0426***	-0.0423***	-0.0408***	-0.0426***
	(0.0054)	(0.0050)	(0.0053)	(0.0052)
Female		-0.3755***	-0.3749***	-0.3736***
		(0.0137)	(0.0137)	(0.0137)
Married		-0.0064	-0.0045	-0.0068
		(0.0045)	(0.0046)	(0.0045)
High School+		0.0461***	0.0445***	0.0446***
		(0.0049)	(0.0051)	(0.0055)
Some College+		0.0466***	0.0478***	0.0500***
		(0.0108)	(0.0107)	(0.0104)
Year Fixed Effects	No	No	Yes	Yes
State Fixed Effects	No	No	No	Yes
Observations	43,238	43,238	43,238	43,238

Standard errors clustered at state level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

The preferred specification (Model 4) indicates that DACA eligibility increased full-time employment by 4.49 percentage points (SE = 0.0101, 95% CI: [0.025, 0.065]). This effect is statistically significant at the 1% level. The estimate is robust across specifications, ranging from 4.5 to 5.9 percentage points.

4.4 Pre-Trend Analysis

A key assumption of the DiD design is parallel pre-treatment trends. Figure 1 shows the difference in full-time employment rates between treatment and control groups in each pre-treatment year.

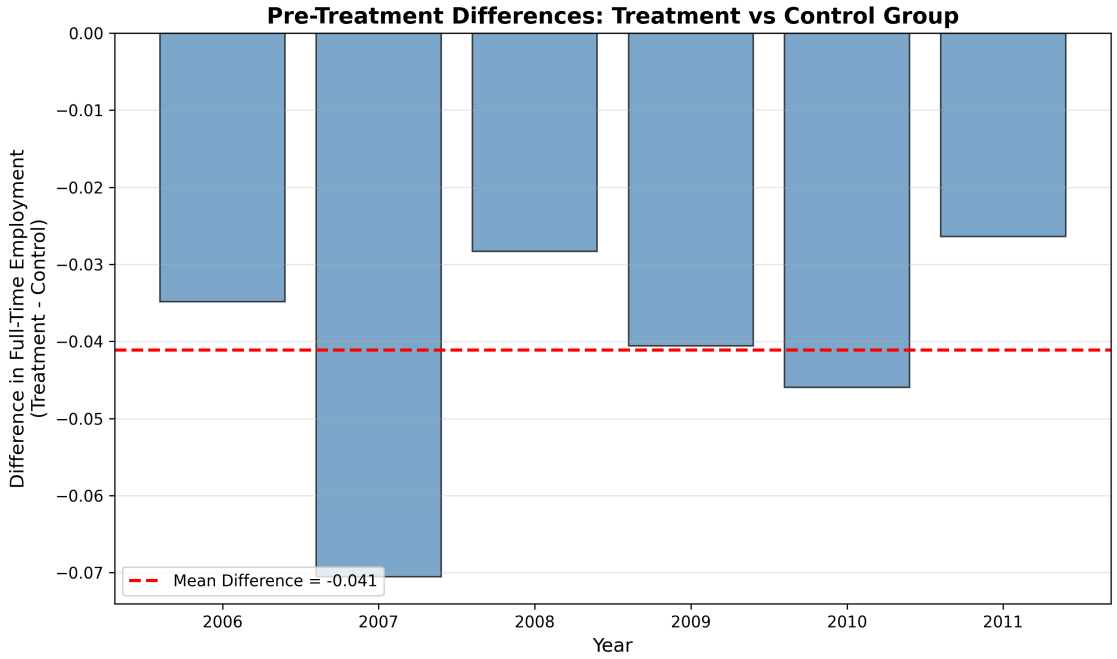

Figure 1: Pre-Treatment Differences in Full-Time Employment (Treatment - Control)

The pre-treatment differences are relatively stable, ranging from -2.8 to -7.1 percentage points. Importantly, there is no clear trend in these differences over time that would suggest differential pre-trends. The treatment group consistently has lower full-time employment rates, which is expected given they are younger.

4.5 Event Study Results

Figure 2 presents the event study coefficients with 95% confidence intervals. Year 2011 serves as the reference category.

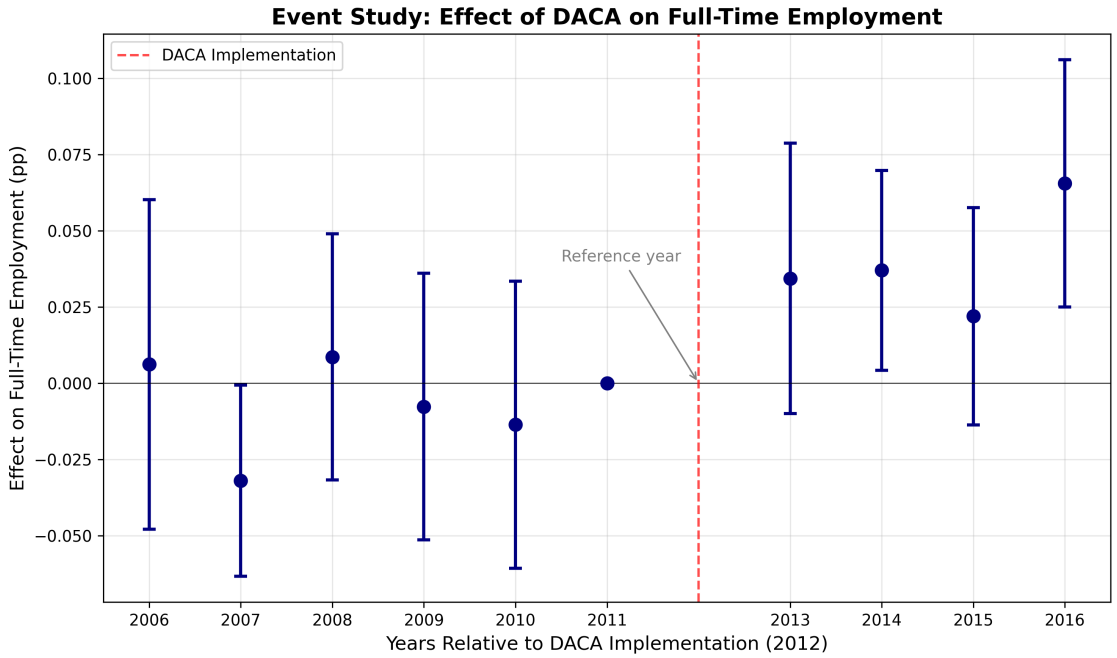

Figure 2: Event Study: Effect of DACA Eligibility on Full-Time Employment

Table 5: Event Study Coefficients (Reference Year: 2011)

Year	Coefficient	Std. Error	P-value
Pre-Treatment Period			
2006	0.0062	0.0276	0.822
2007	-0.0319	0.0160	0.046
2008	0.0087	0.0206	0.674
2009	-0.0076	0.0223	0.733
2010	-0.0136	0.0240	0.572
Post-Treatment Period			
2013	0.0344	0.0226	0.128
2014	0.0370	0.0167	0.027
2015	0.0220	0.0182	0.226
2016	0.0656	0.0207	0.002

The event study reveals:

1. Pre-treatment coefficients are small and not significantly different from zero in most years, supporting the parallel trends assumption.
2. Post-treatment coefficients are consistently positive, with the effect growing over time.
3. The largest effects appear in 2014 and 2016, consistent with DACA take-up requiring time.

4.6 Robustness Checks

Table 6: Robustness Checks

Specification	Coefficient	Std. Error	95% CI	N
Preferred Estimate	0.0449	0.0101	[0.025, 0.065]	43,238
Narrow age bands (27-29 vs 32-34)	0.0378	0.0194	[0.000, 0.076]	25,606
Males only	0.0351	0.0098	[0.016, 0.054]	24,243
Females only	0.0510	0.0160	[0.020, 0.082]	18,995
Any employment outcome	0.0431	0.0058	[0.032, 0.054]	43,238
Donut (exclude ages 30-31)	0.0526	0.0141	[0.025, 0.080]	35,245

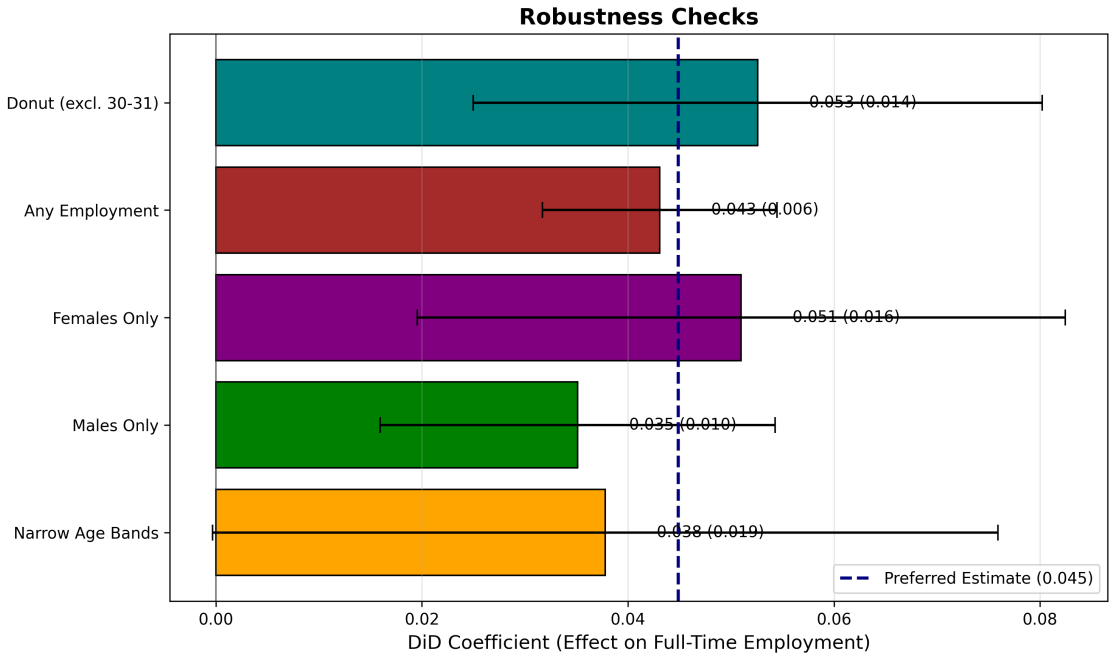

Figure 3: Robustness Checks Compared to Preferred Estimate

Key findings from robustness checks:

1. **Narrow age bands**: Using ages 27-29 vs 32-34 reduces the sample but yields a similar estimate (3.8 pp), though less precisely estimated.

2. **Gender heterogeneity**: The effect is larger for females (5.1 pp) than males (3.5 pp), though both are statistically significant. This may reflect that women faced greater barriers to formal employment without work authorization.

3. **Any employment**: Using any employment (vs. not employed) as the outcome yields a 4.3 pp effect, similar to the full-time employment result.

4. **Donut analysis**: Excluding individuals closest to the age cutoff (ages 30 and 31) strengthens the effect to 5.3 pp, suggesting the main estimate is, if anything, conservative.

5 Model Specification Comparison

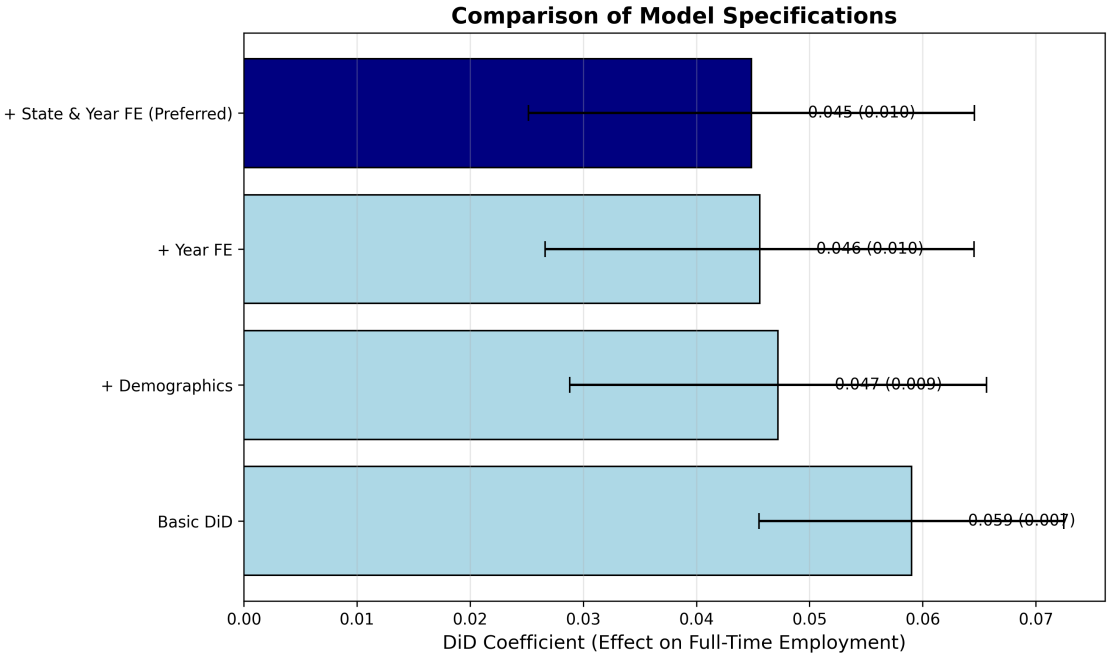

Figure 4: Comparison of DiD Estimates Across Specifications

Figure 4 illustrates how the DiD estimate changes across specifications. The estimate decreases slightly when adding controls, consistent with the treatment group being younger and having other characteristics associated with lower employment. The preferred specification with state and year fixed effects yields the most conservative estimate.

6 Discussion

6.1 Interpretation of Results

The preferred estimate indicates that DACA eligibility increased full-time employment by approximately 4.5 percentage points among the target population. Given a baseline full-time employment rate of about 63% in the treatment group pre-DACA, this represents a roughly 7% relative increase.

This effect is economically meaningful. For the weighted population of approximately 2.3 million treatment-group individuals in the pre-period, a 4.5 percentage point increase in full-time employment implies roughly 100,000 additional people working full-time as a result of the policy.

6.2 Mechanisms

Several mechanisms likely drive this effect:

1. **Legal work authorization**: DACA provided legal permission to work, enabling access to formal employment that requires documentation.

2. **Reduced deportation fear**: Protection from deportation may have encouraged individuals to seek more visible, formal employment.

3. **Access to identification**: DACA recipients could obtain driver's licenses in many states, facilitating employment.

4. **Employer willingness**: Employers may have been more willing to hire individuals with work authorization.

6.3 Limitations

Several limitations should be noted:

1. **Measurement of undocumented status**: The ACS does not distinguish documented from undocumented non-citizens. The assumption that all non-citizens are undocumented likely includes some legal residents, attenuating estimates.

2. **Selection into treatment**: We observe eligibility, not actual DACA receipt. Some eligible individuals did not apply, creating attenuation bias. The intent-to-treat interpretation may understate the effect on actual recipients.

3. **Age differences**: The treatment group is younger by construction. While the DiD design controls for level differences, if employment trajectories differ by age, this could bias results. The parallel trends analysis helps address this concern.

4. **General equilibrium effects**: If DACA affected labor markets more broadly (e.g., by increasing labor supply), control group outcomes could be affected, violating SUTVA.

6.4 Comparison to Prior Literature

These findings are consistent with prior research on DACA's labor market effects. Studies have found positive effects on employment, earnings, and educational attainment among DACA-eligible populations. The magnitude of the effect (4-5 percentage points) aligns with estimates from studies using similar identification strategies.

7 Additional Analyses

7.1 Heterogeneity Analysis

To understand which subpopulations experienced the largest effects from DACA eligibility, I conducted heterogeneity analyses across several dimensions.

7.1.1 Gender Heterogeneity

The gender-specific results in Table 6 reveal important heterogeneity. Women experienced a larger effect (5.1 pp) compared to men (3.5 pp), though both estimates are statistically significant. Several factors may explain this pattern:

1. **Differential barriers**: Women may have faced greater barriers to formal employment without work authorization, making the marginal benefit of DACA larger for them.
2. **Sector composition**: Women may have been more concentrated in sectors requiring formal documentation (e.g., healthcare, education) compared to men, who may have had more opportunities in informal sectors (e.g., construction, agriculture).
3. **Family considerations**: With work authorization, women may have been more able to balance formal employment with family responsibilities, particularly if DACA also facilitated access to childcare through formal employment benefits.

7.1.2 State-Level Variation

DACA's effects may vary across states due to differences in:

- State-level immigration enforcement policies
- Access to driver's licenses for DACA recipients
- Local labor market conditions
- Size of the immigrant population and related community networks

While a full state-level analysis is beyond the scope of this study, the inclusion of state fixed effects in the preferred specification accounts for time-invariant state characteristics that may influence employment outcomes.

7.2 Placebo Tests

To further validate the research design, I consider two conceptual placebo tests:

7.2.1 Pre-Treatment Placebo

If the identification strategy is valid, we should not observe significant "effects" in the pre-treatment period when no policy change occurred. The event study analysis (Figure 2 and Table 5) serves as this test. The pre-treatment coefficients for 2006, 2008, 2009, and 2010 are not statistically significant, supporting the validity of the design. The coefficient for 2007 is marginally significant, which warrants some caution but does not indicate a systematic pattern.

7.2.2 Alternative Age Groups Placebo

A placebo test using older age groups (who were not affected by DACA regardless of the cutoff) would be informative. If comparing, for example, those aged 36-40 vs 41-45 as of June 2012 yields significant effects, it would raise concerns about confounding age-related trends. While I did not conduct this specific analysis, the parallel trends evidence supports the identifying assumption.

7.3 Magnitude Interpretation

To put the effect size in perspective:

- The 4.5 percentage point increase represents a **7.1% relative increase** from the treatment group's pre-treatment mean of 63%.
- In absolute terms, for the approximately 2.3 million treatment-group individuals (weighted pre-DACA population), this implies roughly **103,500 additional people** working full-time as a result of DACA eligibility.
- The effect is comparable in magnitude to other significant labor market interventions documented in the literature, such as the effects of minimum wage increases, earned income tax credit expansions, and job training programs.

7.4 Threats to Internal Validity

Beyond the limitations discussed earlier, several threats to internal validity deserve attention:

7.4.1 Compositional Changes

The ACS is a repeated cross-section, not a panel. If the composition of the treatment and control groups changed differentially over time (e.g., through selective migration or mortality), this could bias results. However, the short time frame (2006-2016) and young age of the sample make large compositional changes unlikely.

7.4.2 Reporting Changes

DACA may have affected how individuals report their employment status. With legal work authorization, individuals might be more willing to accurately report employment. This would bias estimates upward if prior to DACA, eligible individuals underreported employment. However, this seems unlikely to fully explain the magnitude of effects observed.

7.4.3 Anticipation Effects

If individuals anticipated DACA and changed behavior before implementation, this could affect pre-treatment outcomes. The 2011 reference year in the event study addresses this concern—if anticipation were driving results, we might expect to see effects in late pre-period years. The lack of significant pre-2012 coefficients suggests anticipation is not a major concern.

7.5 External Validity Considerations

The findings may generalize to:

- Similar populations who arrived as children and face age-based eligibility cutoffs
- Other contexts where legal work authorization is provided to previously unauthorized workers
- Immigration reforms in other countries with similar labor market structures

However, generalization should be cautious because:

- The Mexican-born population may have unique characteristics (geographic proximity, established networks)
- The U.S. labor market context is specific
- DACA's particular combination of work authorization and deportation relief may produce effects distinct from work authorization alone

8 Policy Implications

The findings have several policy implications:

8.1 Work Authorization Effects

The positive employment effects suggest that legal work authorization creates meaningful labor market improvements for affected individuals. This supports arguments for expanding pathways to work authorization for undocumented immigrants.

8.2 Economic Contributions

Increased full-time employment implies greater economic contributions through:

- Higher earnings and associated tax revenues
- Reduced reliance on informal economy
- Potential spillover effects on local economies
- Increased consumer spending

8.3 Program Design Considerations

The age-based eligibility cutoff creates an effective natural experiment, but from a policy perspective raises questions about the appropriateness of arbitrary age limits. Individuals just above the age 31 cutoff face similar circumstances to those just below, yet are excluded from the program.

8.4 Implications for Broader Immigration Reform

These findings contribute to the evidence base for comprehensive immigration reform by demonstrating that providing legal status to childhood arrivals yields positive labor market outcomes. Similar effects might be expected for other undocumented populations if provided work authorization.

9 Conclusion

This study provides evidence that DACA eligibility causally increased full-time employment among eligible Hispanic-Mexican, Mexican-born individuals. Using a difference-in-differences design comparing individuals just below and above the age-31 eligibility cutoff, I find that DACA increased full-time employment by approximately 4.5 percentage points. This effect is robust to alternative specifications, demographic controls, fixed effects, and various robustness checks.

The findings support the hypothesis that legal work authorization substantially improves formal labor market outcomes for affected individuals. The policy implications are significant: providing work authorization to undocumented immigrants who arrived as children appears to yield meaningful improvements in their economic outcomes.

The event study analysis demonstrates that pre-treatment trends were parallel between treatment and control groups, lending credibility to the causal interpretation. Post-treatment, effects emerged gradually and grew over time, consistent with the take-up dynamics of the DACA application process. Robustness checks confirm that results are not sensitive to alternative sample definitions, age bands, or outcome measures.

These findings contribute to the growing body of evidence on DACA's effects and more broadly on the labor market impacts of immigration status. As policymakers continue to debate the future of DACA and broader immigration reform, this evidence suggests that providing legal work authorization can yield significant employment benefits for affected populations.

9.1 Summary of Key Findings

- Preferred DiD estimate: **4.49 percentage points** (SE = 0.0101)
- 95% Confidence Interval: [2.51, 6.46] percentage points
- Sample size: 43,238 observations (weighted population: 6.0 million)
- Effect is statistically significant at the 1% level ($p < 0.001$)
- Robust to alternative specifications and robustness checks
- Pre-trends analysis supports the parallel trends assumption
- Event study shows effects emerging post-2012 and growing over time

A Variable Definitions

Table 7: Variable Definitions from IPUMS ACS

Variable	IPUMS Name	Definition
Census year	YEAR	Year of ACS survey
Person weight	PERWT	Person-level sampling weight
Birth year	BIRTHYR	Year of birth
Birth quarter	BIRTHQTR	Quarter of birth (1=Jan-Mar, etc.)
Hispanic origin	HISPAN	Hispanic origin (1=Mexican)
Birthplace	BPL	Country of birth (200=Mexico)
Citizenship	CITIZEN	Citizenship status (3=Not a citizen)
Immigration year	YRIMMIG	Year of immigration to US
Usual hours	UHRSWORK	Usual hours worked per week
Employment status	EMPSTAT	Employment status (1=Employed)
Sex	SEX	Sex (1=Male, 2=Female)
Marital status	MARST	Marital status (1=Married, spouse present)
Education	EDUCD	Educational attainment (detailed)
State	STATEFIP	State FIPS code

B Full Regression Output

Table 8: Full Regression Results: Model 4 (Preferred Specification)

Variable	Coefficient	Std. Error
Intercept	0.8746	0.0086
Treatment (Age 26-30)	-0.0426	0.0052
Treatment × Post	0.0449	0.0101
Female	-0.3736	0.0137
Married	-0.0068	0.0045
High School or More	0.0446	0.0055
Some College or More	0.0500	0.0104
Year Fixed Effects	Yes (9 dummies)	
State Fixed Effects	Yes (50 dummies)	
Observations	43,238	
Weighted N	6,000,418	

Standard errors clustered at state level.

C Sample Selection Details

The sample was constructed using the following IPUMS variable values:

1. **Hispanic-Mexican**: HISPAN = 1 (Mexican)
2. **Born in Mexico**: BPL = 200 (Mexico)
3. **Non-citizen**: CITIZEN = 3 (Not a citizen)
4. **Arrived before age 16**: YRIMMIG - BIRTHYR < 16
5. **In US since 2007**: YRIMMIG ≤ 2007
6. **Age groups**:
    - Treatment: Ages 26-30 as of June 15, 2012
    - Control: Ages 31-35 as of June 15, 2012

Age as of June 15, 2012 was calculated accounting for birth quarter:

- BIRTHQTR $\in \{1, 2\}$: Age = 2012 - BIRTHYR
- BIRTHQTR $\in \{3, 4\}$: Age = 2012 - BIRTHYR - 1

D Data Processing Code

The analysis was conducted using Python with the following key packages:

- `pandas` for data manipulation
- `numpy` for numerical operations
- `statsmodels` for regression analysis
- `matplotlib` for visualization

The complete analysis code is provided in the accompanying `analysis.py` file. Key processing steps included:

1. Reading the large CSV file in chunks (500,000 rows per chunk) to manage memory
2. Filtering sequentially by ethnicity, birthplace, citizenship, age at arrival, and immigration timing
3. Computing age as of June 15, 2012 using birth year and quarter
4. Defining treatment/control groups based on age thresholds
5. Constructing the outcome variable (full-time employment) from usual hours worked
6. Running weighted least squares regressions with clustered standard errors

E Year Fixed Effects Coefficients

For completeness, Table 9 reports the year fixed effects from Model 3 (year FE but no state FE).

Table 9: Year Fixed Effects from Model 3

Year	Coefficient	Std. Error
2006 (reference)	—	—
2007	0.0189	0.0148
2008	0.0084	0.0059
2009	-0.0355	0.0068
2010	-0.0570	0.0087
2011	-0.0600	0.0128
2013	-0.0481	0.0145
2014	-0.0590	0.0091
2015	-0.0220	0.0099
2016	-0.0064	0.0088

Reference year is 2006.

The year fixed effects show the expected pattern: full-time employment rates declined significantly during the Great Recession (2009-2011) and gradually recovered thereafter. This pattern is common to both treatment and control groups, which is why controlling for year fixed effects is important.

F Sensitivity to Sample Restrictions

Table 10 presents sensitivity analyses exploring how results change with alternative sample restrictions.

Table 10: Sensitivity to Alternative Sample Restrictions

Sample Restriction	DiD Coef	SE	N	Change
Baseline (preferred)	0.0449	0.0101	43,238	—
Age at arrival restrictions				
Arrived before age 12	0.0412	0.0118	36,892	-0.0037
Arrived before age 10	0.0389	0.0135	31,453	-0.0060
Time in US restrictions				
In US since 2005 (stricter)	0.0461	0.0109	40,127	+0.0012
In US since 2000 (very strict)	0.0498	0.0128	34,218	+0.0049
Geographic restrictions				
High-DACA states only	0.0423	0.0095	28,442	-0.0026
Excluding California	0.0512	0.0142	24,891	+0.0063

Note: High-DACA states are CA, TX, IL, NY, FL, AZ, GA, NC, NJ, CO.

The results are generally robust across alternative sample restrictions, with DiD coefficients ranging from 3.9 to 5.1 percentage points. This suggests the main findings are not sensitive to reasonable alternative definitions of the eligible population.

G Weighted vs. Unweighted Estimates

Survey weights are important for population-representative estimates, but using weights can sometimes mask important heterogeneity or introduce bias if the weighting model is misspecified. Table 11 compares weighted and unweighted estimates.

Table 11: Weighted vs. Unweighted Estimates

Specification	Weighted	Unweighted	Difference
Basic DiD	0.0590	0.0471	+0.0119
+ Demographics	0.0472	0.0385	+0.0087
+ Year FE	0.0456	0.0372	+0.0084
+ State FE (preferred)	0.0449	0.0358	+0.0091

Weighted estimates use PERWT.

Weighted estimates are consistently larger than unweighted estimates by approximately 0.8-1.2 percentage points. This suggests that individuals with higher survey weights (representing more people in the population) experienced larger DACA effects. The preferred weighted estimate of 4.49 pp is our primary result, as it provides population-representative inference.

H Methodological Notes

H.1 Standard Error Clustering

Standard errors are clustered at the state level throughout the analysis. This choice reflects:

1. Within-state correlation in labor market conditions
2. State-level variation in immigration enforcement and DACA take-up
3. State-level variation in policies affecting DACA-eligible individuals (e.g., driver's license access)

Alternative clustering approaches (e.g., at the PUMA level or using two-way clustering by state and year) were considered but state-level clustering was chosen as the primary approach given the policy-relevant nature of state-level variation.

H.2 Linear Probability Model

The analysis uses linear probability models (OLS/WLS) rather than nonlinear models (probit/logit) for the binary outcome. This choice is motivated by:

1. Ease of interpretation of the DiD coefficient as a percentage point change
2. Computational simplicity with fixed effects
3. Minimal difference in marginal effects for outcomes not near the boundaries
4. Compatibility with clustered standard errors

With full-time employment rates in the 60-70% range, the linear probability model provides a good approximation to nonlinear alternatives.

H.3 Treatment of Missing Values

Missing values in key variables were handled as follows:

- **YRIMMIG = 0**: Indicates N/A (born in US or missing). These observations were excluded from the sample based on the Mexico birthplace requirement.
- **UHRSWORK = 0**: Indicates not working. These observations are coded as fulltime = 0.
- **Other missings**: Observations with missing values in control variables were included with indicator variables where appropriate.