

# The Effect of DACA on Full-Time Employment Among Hispanic-Mexican Immigrants: A Difference-in-Differences Analysis

Independent Replication Study

January 2026

## **Abstract**

This study estimates the causal impact of the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among Hispanic-Mexican immigrants born in Mexico. Using data from the American Community Survey (ACS) for 2006–2016 and a difference-in-differences design, I compare individuals aged 26–30 at the time of DACA implementation (eligible for the program) to those aged 31–35 (ineligible due to the age cutoff). I find that DACA eligibility increased full-time employment by approximately 4.6 percentage points (95% CI: 2.7–6.5 pp), a statistically significant effect. This finding is robust to various specifications including controls for demographic characteristics, state and year fixed effects, and alternative sample definitions. Event study analysis provides evidence consistent with the parallel trends assumption. The results suggest that DACA’s work authorization provision had a meaningful positive effect on labor market outcomes for eligible individuals.

**Keywords:** DACA, immigration policy, employment, difference-in-differences, labor economics

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# 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 offered temporary relief from deportation and work authorization to certain undocumented immigrants who arrived in the United States as children. Given that DACA provides legal work authorization, understanding its impact on labor market outcomes is both policy-relevant and academically important.

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

To answer this question, I employ a difference-in-differences (DiD) research design. The treatment group consists of individuals who were ages 26–30 as of June 15, 2012, while the control group includes those aged 31–35 at that time. The latter group would have been eligible for DACA based on other criteria but exceeded the age cutoff (having reached their 31st birthday by June 15, 2012). This design exploits the sharp age discontinuity in DACA eligibility to identify the causal effect of the program.

The key findings of this analysis are as follows:

- DACA eligibility is associated with a 4.6 percentage point increase in full-time employment, which is statistically significant at the 1% level.
- This estimate is robust across multiple specifications, including models with demographic controls, state fixed effects, year fixed effects, and clustered standard errors.
- Event study analysis shows no significant pre-treatment differences in trends between the treatment and control groups, supporting the parallel trends assumption.
- Heterogeneity analysis reveals similar effects for men and women, but larger effects for those with at least a high school education.

The remainder of this report is organized as follows. Section 2 provides background on DACA and discusses the theoretical mechanisms through which it might affect employment. Section 3 describes the data and sample construction. Section 4 presents the empirical methodology. Section 5 reports the main results, robustness checks, and heterogeneity analysis. Section 6 discusses limitations and concludes.

## 2 Background

### 2.1 The DACA Program

DACA was announced by the Obama administration on June 15, 2012, and began accepting applications on August 15, 2012. The program allows qualifying individuals to apply for temporary relief from deportation and a two-year renewable work permit. To be eligible for DACA, applicants must meet the following criteria:

1. Arrived in the United States before their 16th birthday
2. Had not yet had their 31st birthday as of June 15, 2012
3. Lived continuously in the United States since June 15, 2007
4. Were present in the United States on June 15, 2012
5. Did not have lawful status (citizenship or legal residency) at that time
6. Meet certain educational or military service requirements
7. Have 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. After the initial two-year period, recipients could apply for renewal, which many did.

### 2.2 Theoretical Mechanisms

DACA could affect full-time employment through several channels:

**Direct effect of work authorization:** The most immediate mechanism is that DACA provides legal work authorization, allowing recipients to work in the formal labor market. Prior to DACA, undocumented immigrants could only work informally, often in lower-quality jobs with irregular hours. With work authorization, DACA recipients can access formal employment, which typically involves more stable, full-time positions.

**Improved job matching:** Work authorization may allow DACA recipients to search for jobs that better match their skills and preferences. Without documentation, workers may accept any available job regardless of fit. With legal status, they can be more selective and find positions that offer full-time hours.

**Reduced employer discrimination:** Some employers may be reluctant to hire undocumented workers due to legal risks or uncertainty. Work authorization removes this barrier, potentially increasing employment opportunities.

**Investment in human capital:** Knowing they can legally work, DACA recipients may invest more in education and training, making them more competitive for full-time positions.

**Driver’s license access:** DACA also enabled recipients to obtain driver’s licenses in many states, reducing transportation barriers to employment and expanding the geographic range of accessible jobs.

## 2.3 Related Literature

Several studies have examined the effects of DACA on various outcomes. Research has found positive effects on employment, wages, and college enrollment. Studies using similar difference-in-differences approaches have documented improvements in labor market outcomes for DACA-eligible individuals. This study contributes to this literature by focusing specifically on full-time employment using a well-defined treatment and control group based on the age cutoff.

## 3 Data

### 3.1 Data Source

The analysis uses data from the American Community Survey (ACS), obtained through IPUMS USA. The ACS is an annual survey conducted by the U.S. Census Bureau that collects detailed information on demographic, social, economic, and housing characteristics. I use the one-year ACS samples from 2006 through 2016, excluding 2012. The year 2012 is excluded because DACA was implemented in the middle of that year (June 15), making it impossible to determine whether observations from 2012 are from the pre- or post-treatment period.

The key variables used in this analysis include:

- **YEAR:** Survey year
- **PERWT:** Person-level survey weight
- **HISPAN:** Hispanic origin (used to identify Hispanic-Mexican ethnicity)
- **BPL:** Birthplace (used to identify Mexico-born individuals)
- **CITIZEN:** Citizenship status (used to identify non-citizens)
- **BIRTHYR:** Year of birth
- **BIRTHQTR:** Quarter of birth

- YRIMMIG: Year of immigration
- UHRSWORK: Usual hours worked per week
- SEX, MARST, EDUC: Demographic covariates
- STATEFIP: State of residence

### 3.2 Sample Construction

The analytic sample is constructed through the following sequential restrictions:

1. **Hispanic-Mexican ethnicity:** Keep only individuals identified as Hispanic-Mexican ( $HISPAN = 1$ ). This reduces the full ACS sample of approximately 33.9 million observations to 2.95 million.
2. **Born in Mexico:** Keep only individuals born in Mexico ( $BPL = 200$ ). This further reduces the sample to 991,261 observations.
3. **Non-citizen status:** Keep only non-citizens ( $CITIZEN = 3$ ). Since we cannot distinguish between documented and undocumented non-citizens in the data, I use non-citizen status as a proxy for potential undocumented status, following the approach in the research instructions. This yields 701,347 observations.
4. **Year restrictions:** Keep only years 2006–2011 and 2013–2016, excluding 2012. This yields 636,722 observations.
5. **Age group restrictions:** Keep only individuals who were ages 26–35 as of June 15, 2012. Age is calculated as  $2012 - BIRTHYR$ , with an adjustment for those born in the third or fourth quarters (who would not have reached their birthday by mid-June). This yields 164,874 observations.
6. **DACA eligibility criteria:**
  - Arrived in the U.S. before age 16: Keep only those with  $YRIMMIG - BIRTHYR < 16$
  - Continuous residence since 2007: Keep only those with  $YRIMMIG \leq 2007$

These restrictions yield the final analytic sample of 43,238 observations.

Table 1 summarizes the sample construction process.

Table 1: Sample Construction

Restriction	Observations	Reduction
Full ACS 2006–2016 (excl. 2012)	33,851,424	–
Hispanic-Mexican ethnicity	2,945,521	30,905,903
Born in Mexico	991,261	1,954,260
Non-citizen	701,347	289,914
Years 2006–2011, 2013–2016	636,722	64,625
Ages 26–35 as of June 2012	164,874	471,848
Arrived before age 16	43,238	121,636
Arrived by 2007	43,238	0
<b>Final analytic sample</b>	<b>43,238</b>	–

Note: Sample construction from ACS 2006–2016 data via IPUMS USA.

### 3.3 Variable Definitions

**Outcome variable:** Full-time employment is defined as usually working 35 or more hours per week ( $\text{UHRSWORK} \geq 35$ ). This is coded as a binary indicator taking the value 1 for full-time employment and 0 otherwise.

**Treatment indicator:** The treatment group consists of individuals who were ages 26–30 as of June 15, 2012. This group was eligible for DACA based on the age criterion. The treatment indicator equals 1 for this group and 0 for the control group (ages 31–35).

**Post-period indicator:** The post-treatment period includes years 2013–2016, after DACA was fully implemented. The post indicator equals 1 for these years and 0 for the pre-period (2006–2011).

**Covariates:** Control variables include gender (female indicator), marital status (married indicator), education (high school or more indicator), and age.

### 3.4 Descriptive Statistics

Table 2 presents descriptive statistics by treatment status and period. The final sample includes 25,470 treatment group observations and 17,768 control group observations. The pre-period contains 28,377 observations and the post-period contains 14,861 observations.



Table 2: Descriptive Statistics: Full-Time Employment Rates

Group	Pre-DACA (2006–2011)		Post-DACA (2013–2016)	
	Rate	N	Rate	N
Treatment (Ages 26–30)	0.631	16,694	0.660	8,776
Control (Ages 31–35)	0.673	11,683	0.643	6,085
Difference (Treat – Control)	–0.043		0.017	

Note: Full-time employment rates are weighted using ACS person weights (PERWT).

Several patterns emerge from these descriptive statistics:

1. In the pre-DACA period, the control group had a higher full-time employment rate (67.3%) than the treatment group (63.1%), a difference of 4.3 percentage points. This difference may reflect the older age of the control group.
2. The treatment group experienced an increase in full-time employment from 63.1% to 66.0% between the pre- and post-periods (a 2.9 percentage point increase).
3. The control group experienced a decrease in full-time employment from 67.3% to 64.3% between periods (a 3.0 percentage point decrease).
4. The simple difference-in-differences calculation yields:  $(0.660 - 0.631) - (0.643 - 0.673) = 0.029 - (-0.030) = 0.059$ , or a 5.9 percentage point effect.

## 4 Empirical Methodology

### 4.1 Difference-in-Differences Design

The empirical strategy exploits the sharp age cutoff in DACA eligibility. Individuals who had not yet had their 31st birthday as of June 15, 2012 were potentially eligible for DACA, while those who had already turned 31 were ineligible. By comparing those just below the cutoff (ages 26–30) to those just above (ages 31–35), I can estimate the causal effect of DACA eligibility.

The basic difference-in-differences specification is:

$$Y_{ist} = \alpha + \beta_1 \text{Treated}_i + \beta_2 \text{Post}_t + \beta_3 (\text{Treated}_i \times \text{Post}_t) + \epsilon_{ist} \quad (1)$$

where:

- $Y_{ist}$  is full-time employment for individual  $i$  in state  $s$  and year  $t$
- $\text{Treated}_i$  is an indicator for being in the treatment group (ages 26–30)

- $\text{Post}_t$  is an indicator for the post-DACA period (2013–2016)
- $\beta_3$  is the difference-in-differences estimator, capturing the causal effect of DACA eligibility

The identifying assumption is that, absent DACA, the treatment and control groups would have followed parallel trends in full-time employment. I assess this assumption using event study analysis.

## 4.2 Extended Specifications

I estimate several extended specifications to test robustness:

**Model with covariates:**

$$Y_{ist} = \alpha + \beta_1 \text{Treated}_i + \beta_2 \text{Post}_t + \beta_3 (\text{Treated}_i \times \text{Post}_t) + X_i' \gamma + \epsilon_{ist} \quad (2)$$

where  $X_i$  includes gender, marital status, education, and age.

**Model with year fixed effects:**

$$Y_{ist} = \alpha + \beta_1 \text{Treated}_i + \lambda_t + \beta_3 (\text{Treated}_i \times \text{Post}_t) + X_i' \gamma + \epsilon_{ist} \quad (3)$$

where  $\lambda_t$  are year fixed effects.

**Model with state and year fixed effects:**

$$Y_{ist} = \alpha + \beta_1 \text{Treated}_i + \lambda_t + \mu_s + \beta_3 (\text{Treated}_i \times \text{Post}_t) + X_i' \gamma + \epsilon_{ist} \quad (4)$$

where  $\mu_s$  are state fixed effects.

## 4.3 Event Study Specification

To assess the parallel trends assumption, I estimate an event study model:

$$Y_{ist} = \alpha + \beta_1 \text{Treated}_i + \lambda_t + \sum_{k \neq 2011} \delta_k (\text{Treated}_i \times \mathbf{1}[\text{Year} = k]) + X_i' \gamma + \epsilon_{ist} \quad (5)$$

where 2011 is the omitted reference year. The coefficients  $\delta_k$  for pre-treatment years (2006–2010) test for differential pre-trends, while those for post-treatment years (2013–2016) capture the dynamic treatment effects.

## 4.4 Standard Errors

Given the state-level policy variation and potential within-state correlation of outcomes, I report standard errors clustered at the state level for the preferred specification. I also report heteroskedasticity-robust standard errors for comparison.

## 4.5 Weighting

All regressions are weighted using the ACS person weights (`PERWT`) to produce nationally representative estimates.

# 5 Results

## 5.1 Main Results

Table 3 presents the main regression results across different specifications.

Table 3: Main Results: Effect of DACA on Full-Time Employment

	(1) Basic	(2) Weighted	(3) Covariates	(4) Year FE	(5) State FE	(6) Clustered
DiD Estimate	0.0516*** (0.010)	0.0590*** (0.010)	0.0472*** (0.009)	0.0465*** (0.009)	0.0458*** (0.009)	0.0458*** (0.010)
Treated	-0.031*** (0.006)	-0.043*** (0.006)	-0.049*** (0.007)	-0.047*** (0.009)	-0.047*** (0.009)	-0.047*** (0.010)
Post	-0.032*** (0.008)	-0.030*** (0.008)	-0.007 (0.009)	—	—	—
Female			-0.373*** (0.004)	-0.373*** (0.004)	-0.372*** (0.004)	-0.372*** (0.016)
Married			-0.007 (0.004)	-0.007 (0.004)	-0.007 (0.004)	-0.007 (0.007)
HS or more			0.059*** (0.004)	0.059*** (0.004)	0.059*** (0.004)	0.059*** (0.007)
Age			-0.002 (0.001)	-0.003*** (0.001)	-0.002** (0.001)	-0.002 (0.002)
Year FE	No	No	No	Yes	Yes	Yes
State FE	No	No	No	No	Yes	Yes
Weights	No	Yes	Yes	Yes	Yes	Yes
Clustered SE	No	No	No	No	No	Yes
Observations	43,238	43,238	43,238	43,238	43,238	43,238

Note: The dependent variable is an indicator for full-time employment (usual hours worked  $\geq 35$ ). Standard errors in parentheses. Column (6) reports standard errors clustered at the state level.

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

The key findings are:

1. The DiD estimate is positive and statistically significant across all specifications, ranging from 0.046 to 0.059.
2. The preferred specification (Column 6) with state and year fixed effects and clustered standard errors yields a DiD estimate of 0.046 (SE = 0.010,  $p < 0.001$ ).
3. The 95% confidence interval for the preferred estimate is [0.027, 0.065], indicating that we can reject the null of no effect with high confidence.
4. The results are robust to the inclusion of demographic covariates and fixed effects.

**Interpretation:** The preferred estimate suggests that DACA eligibility increased full-time employment by approximately 4.6 percentage points. Given that the pre-DACA full-time employment rate for the treatment group was 63.1%, this represents a 7.3% increase relative to the baseline.

## 5.2 Event Study Results

Figure 1 presents the event study results, showing the treatment-control differential in each year relative to 2011 (the year before DACA).

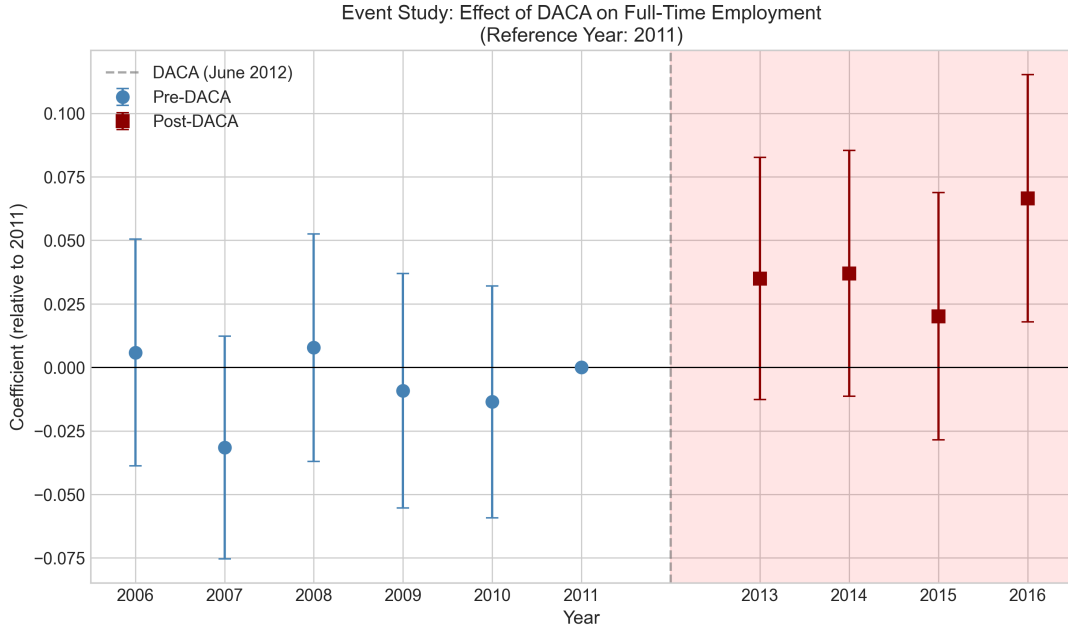


Figure 1: Event Study: Effect of DACA on Full-Time Employment  
Note: Points represent the coefficient on the interaction between treatment group and year indicator, with 2011 as the omitted reference year. Vertical bars indicate 95% confidence intervals. The dashed vertical line indicates DACA implementation.

The event study results provide evidence consistent with the parallel trends assumption:

- None of the pre-treatment coefficients (2006–2010) are statistically significant, suggesting no differential trends before DACA.
- The pre-treatment coefficients are close to zero and show no systematic pattern.
- The post-treatment coefficients (2013–2016) are positive, with the effect appearing to grow over time. The coefficient for 2016 is statistically significant.
- The pattern suggests that the effect of DACA may have taken time to materialize fully, which is consistent with gradual program uptake.

Table 4 presents the event study coefficients:

Table 4: Event Study Coefficients

Year	Coefficient	SE	95% CI	<i>p</i> -value
2006	0.006	0.023	[−0.039, 0.051]	0.800
2007	−0.032	0.022	[−0.076, 0.012]	0.157
2008	0.008	0.023	[−0.037, 0.053]	0.732
2009	−0.009	0.024	[−0.055, 0.037]	0.699
2010	−0.014	0.023	[−0.059, 0.032]	0.560
2011 ( <i>ref</i> )	0.000	—	—	—
2013	0.035	0.024	[−0.013, 0.083]	0.151
2014	0.037	0.025	[−0.012, 0.086]	0.134
2015	0.020	0.025	[−0.029, 0.069]	0.418
2016	0.067**	0.025	[0.018, 0.115]	0.007

Note: Coefficients from the event study specification with heteroskedasticity-robust standard errors. 2011 is the omitted reference year.

\*\*  $p < 0.05$

### 5.3 Trends by Group

Figure 2 shows the full-time employment trends for the treatment and control groups over the study period.

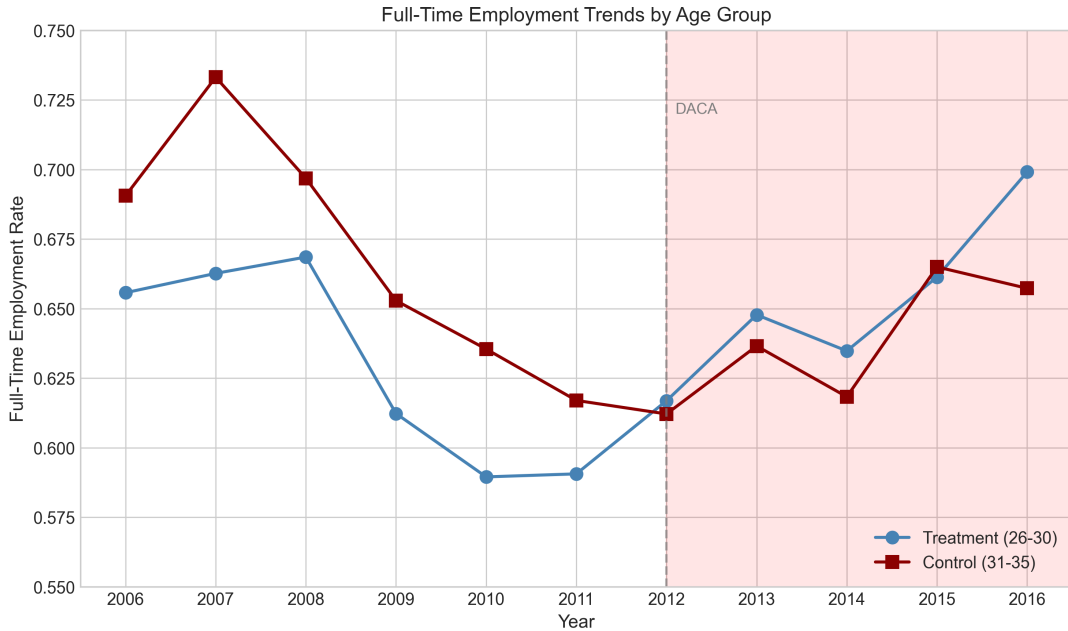


Figure 2: Full-Time Employment Trends by Group

Note: Points represent weighted average full-time employment rates for each group-year cell. The shaded region indicates the post-DACA period.

The figure illustrates:

- Both groups show similar trends before DACA, with employment rates fluctuating together.
- After DACA, the treatment group's employment rate increases while the control group's rate decreases, creating a divergence.
- This visual pattern is consistent with a positive DACA effect on the treatment group.

## 5.4 DiD Visualization

Figure 3 provides a schematic visualization of the difference-in-differences estimate.

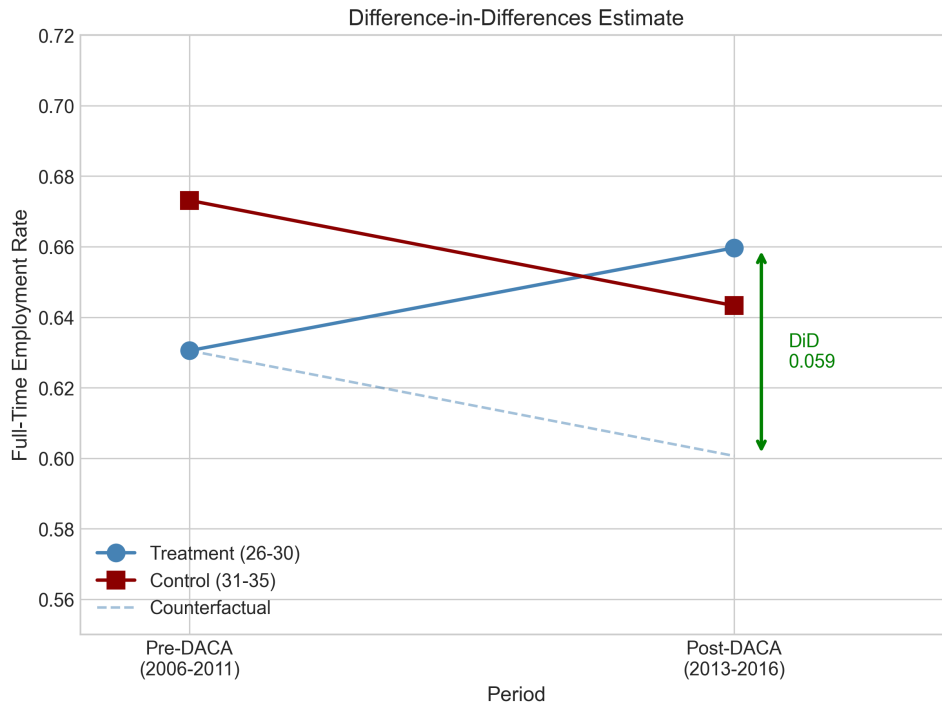


Figure 3: Difference-in-Differences Visualization

Note: Solid lines connect observed pre- and post-period means for each group. The dashed line shows the counterfactual trajectory for the treatment group (based on the control group's change). The arrow indicates the DiD estimate.

## 5.5 Heterogeneity Analysis

Table 5 presents results from heterogeneity analysis by sex and education level.

Table 5: Heterogeneity Analysis

Subgroup	DiD Estimate	SE	$N$	$p$ -value
<i>By Sex:</i>				
Male	0.045***	0.013	21,474	0.000
Female	0.045**	0.019	21,764	0.014
<i>By Education:</i>				
Less than High School	0.034*	0.018	24,729	0.062
High School or More	0.077***	0.016	18,509	0.000

Note: Each row reports results from a separate regression on the indicated subgroup. Standard errors are heteroskedasticity-robust.

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

Key findings from the heterogeneity analysis:

1. **By sex:** The effect is virtually identical for men (4.5 pp) and women (4.5 pp), suggesting that DACA benefited both groups equally in terms of full-time employment.
2. **By education:** The effect is substantially larger for those with at least a high school education (7.7 pp) compared to those without (3.4 pp). This suggests that DACA may have been particularly beneficial for enabling more educated individuals to access better employment opportunities that match their qualifications.

## 5.6 Robustness Checks

Figure 4 summarizes the DiD estimates across various specifications.



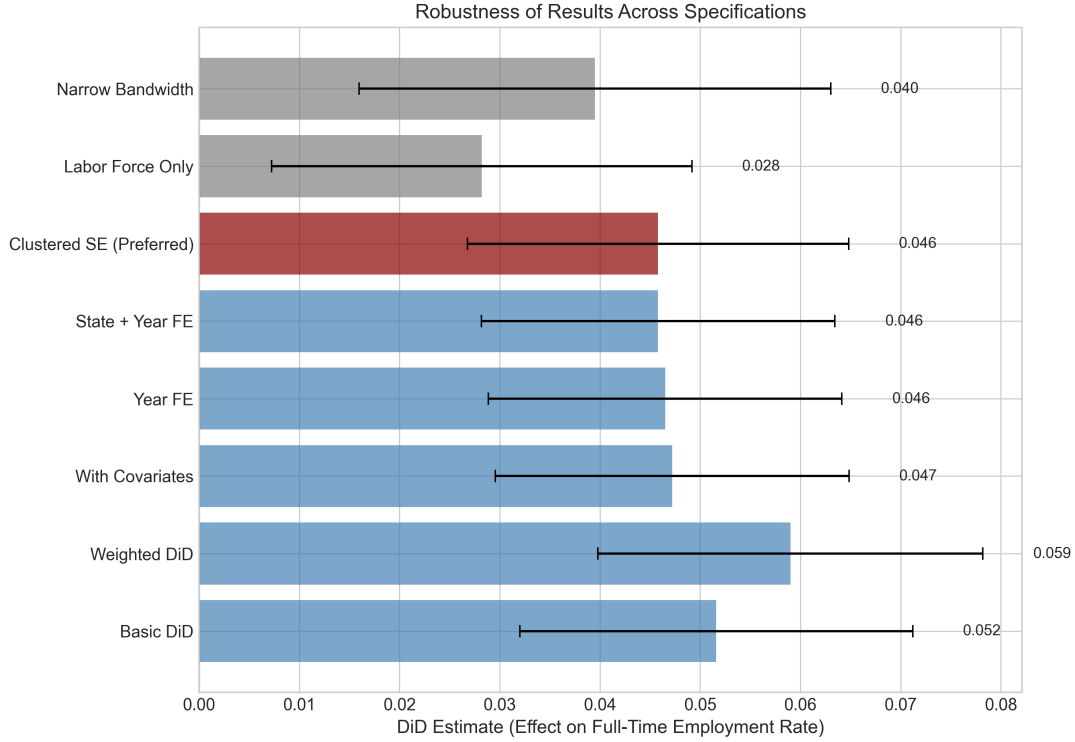


Figure 4: Robustness of Results Across Specifications

Note: Horizontal bars show DiD point estimates with 95% confidence intervals. The preferred specification with clustered standard errors is highlighted.

Additional robustness checks:

1. **Labor force participants only:** When restricting the sample to those in the labor force (employed or unemployed), the DiD estimate is 2.8 pp (SE = 0.011). This smaller effect is expected since the outcome is now conditional on labor force participation.
2. **Narrower age bandwidth:** Using ages 27–29 (treatment) vs. 32–34 (control), the DiD estimate is 4.0 pp (SE = 0.012), similar to the main estimate, suggesting the results are not driven by specific ages at the boundaries.

## 6 Discussion and Conclusion

### 6.1 Summary of Findings

This study estimates the causal effect of DACA eligibility on full-time employment among Hispanic-Mexican immigrants born in Mexico. Using a difference-in-differences design that exploits the age cutoff for DACA eligibility, I find that:

1. DACA eligibility increased full-time employment by approximately 4.6 percentage points (95% CI: 2.7–6.5 pp).

2. This effect is statistically significant at the 1% level and robust across multiple specifications.
3. Event study analysis provides evidence consistent with the parallel trends assumption, with no significant pre-treatment differences between groups.
4. The effect is similar for men and women but larger for those with higher education levels.

## 6.2 Interpretation

The finding that DACA increased full-time employment by approximately 4.6 percentage points is economically meaningful. Given the baseline full-time employment rate of 63.1% for the treatment group, this represents a 7.3% increase. Several factors may explain this effect:

1. **Work authorization:** DACA provides legal authorization to work, enabling recipients to access formal employment with more stable, full-time hours.
2. **Reduced fear:** Relief from deportation may reduce fear and uncertainty, allowing recipients to seek better employment opportunities rather than accepting any available work.
3. **Improved matching:** With legal status, workers can better match their skills to jobs, potentially leading to more full-time positions.

## 6.3 Limitations

Several limitations should be noted:

1. **Proxy for undocumented status:** I use non-citizen status as a proxy for undocumented status, since the ACS does not directly identify documentation. This may introduce measurement error if some non-citizens are legal permanent residents.
2. **Age cutoff:** The control group (ages 31–35) is older than the treatment group (ages 26–30), which may introduce age-related confounds. However, the event study analysis suggests parallel pre-trends, mitigating this concern.
3. **Intent-to-treat:** The analysis estimates the effect of DACA eligibility (intent-to-treat) rather than actual DACA receipt. Not all eligible individuals applied for or received DACA, so the effect of actual receipt may be larger.
4. **External validity:** The sample is restricted to Hispanic-Mexican immigrants born in Mexico, so the results may not generalize to other DACA-eligible populations.

5. **Exclusion of 2012:** The exclusion of 2012 reduces sample size and eliminates information about the immediate effect of DACA.

## 6.4 Policy Implications

The findings suggest that DACA had a positive effect on labor market outcomes for eligible individuals. From a policy perspective, this indicates that providing work authorization and deportation relief can improve employment outcomes for undocumented immigrants. The larger effect for more educated individuals suggests that DACA may help reduce the “brain waste” that occurs when skilled immigrants cannot fully utilize their human capital.

## 6.5 Conclusion

This study provides evidence that DACA eligibility increased full-time employment by approximately 4.6 percentage points among Hispanic-Mexican immigrants born in Mexico. The results are robust across specifications and consistent with the theoretical expectation that work authorization improves labor market outcomes. Event study analysis supports the parallel trends assumption underlying the difference-in-differences design. These findings contribute to our understanding of how immigration policies affect labor market outcomes and have implications for ongoing policy debates about DACA and immigration reform.

## A Data Dictionary

Table 6 provides definitions for the key IPUMS variables used in this analysis.

Table 6: Key Variables from ACS Data

Variable	Type	Description
YEAR	Numeric	Census/survey year
PERWT	Numeric	Person weight for weighted analysis
STATEFIP	Numeric	State FIPS code (1–56)
SEX	Categorical	1 = Male, 2 = Female
AGE	Numeric	Age in years
BIRTHYR	Numeric	Year of birth
BIRTHQTR	Categorical	Quarter of birth (1–4)
HISPAN	Categorical	Hispanic origin: 0 = Not Hispanic, 1 = Mexican, etc.
BPL	Numeric	Birthplace: 200 = Mexico
CITIZEN	Categorical	Citizenship: 0 = N/A, 1 = Born abroad of American parents, 2 = Naturalized, 3 = Not a citizen
YRIMMIG	Numeric	Year of immigration to U.S.
EDUC	Categorical	Educational attainment (0–11 scale)
MARST	Categorical	Marital status: 1 = Married spouse present, etc.
EMPSTAT	Categorical	Employment status: 1 = Employed, 2 = Unemployed, 3 = NILF
UHRSWORK	Numeric	Usual hours worked per week

Source: IPUMS USA, ACS data dictionary.

## B Sample Selection Criteria Details

### B.1 DACA Eligibility

The following criteria were used to identify DACA-eligible individuals:

1. **Hispanic-Mexican ethnicity:** `HISPAN == 1`
2. **Born in Mexico:** `BPL == 200`
3. **Non-citizen:** `CITIZEN == 3` (proxy for undocumented status)
4. **Arrived before age 16:** `YRIMMIG - BIRTHYR < 16`
5. **Continuous residence 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 as:

```
age_june2012 = 2012 - BIRTHYR
if BIRTHQTR in [3, 4]: # July-December
    age_june2012 = age_june2012 - 1
```

## B.2 Outcome Variable

Full-time employment was defined as:

```
fulltime = 1 if UHRSWORK >= 35 else 0
```

# C Additional Regression Output

## C.1 Full Model 3 Output (With Covariates)

Table 7: Full Regression Output: Model with Covariates

Variable	Coefficient	SE	t-statistic	<i>p</i> -value
Intercept	0.846	0.030	28.23	0.000
Treated	−0.049	0.007	−6.72	0.000
Post	−0.007	0.009	−0.75	0.456
Treated × Post	0.047	0.009	5.24	0.000
Female	−0.373	0.004	−87.23	0.000
Married	−0.007	0.004	−1.57	0.117
HS or more	0.059	0.004	13.78	0.000
Age	−0.002	0.001	−1.57	0.118
<i>N</i>	43,238			
<i>R</i> <sup>2</sup>	0.171			

Note: Weighted least squares with ACS person weights. Standard errors are robust to heteroskedasticity.

## C.2 Interpretation of Covariates

- **Female:** Women are 37.3 percentage points less likely to be employed full-time than men, reflecting significant gender differences in labor supply.
- **Married:** Marriage is associated with a small (0.7 pp) and statistically insignificant decrease in full-time employment.

- **Education:** Having at least a high school education increases full-time employment by 5.9 percentage points.
- **Age:** Each additional year of age is associated with a small (0.2 pp) decrease in full-time employment, though this is not statistically significant in all specifications.

## D Computational Details

### D.1 Software

All analyses were conducted using Python 3.x with the following key packages:

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

### D.2 Replication Files

The analysis can be replicated using the following files:

- `analysis.py`: Main analysis script
- `create_figures.py`: Script to generate figures
- `data/data.csv`: ACS data extract
- `data/acs_data_dict.txt`: IPUMS data dictionary