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

Independent Replication Report

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Abstract

This report presents an independent replication study examining the causal effect of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among Hispanic-Mexican individuals born in Mexico and residing in the United States. Using American Community Survey (ACS) data from 2006–2016 and a difference-in-differences research design, I compare individuals aged 26–30 at the time of DACA implementation (treatment group) to those aged 31–35 (control group). The preferred specification estimates that DACA eligibility increased the probability of full-time employment by approximately 1.7 percentage points (SE = 0.005, $p < 0.001$). This effect appears to be driven primarily by males, with no statistically significant effect found for females. Event study analysis reveals some pre-treatment differences that warrant cautious interpretation of the results.

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1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, implemented on June 15, 2012, represents one of the most significant immigration policy changes in recent U.S. history. The program provided temporary relief from deportation and work authorization to approximately 800,000 undocumented immigrants who arrived in the United States as children. By offering legal work authorization and the ability to obtain driver's licenses in many states, DACA potentially removed significant barriers to formal employment for eligible individuals.

This study examines whether DACA eligibility causally affected full-time employment rates among the target population. Using a difference-in-differences (DiD) research design, I compare employment outcomes between individuals who were eligible for DACA (ages 26–30 at implementation) and those who were ineligible due solely to age (ages 31–35 at implementation), before and after the policy went into effect.

1.1 Research Question

Among ethnically Hispanic-Mexican, Mexican-born people living in the United States, what was the causal impact of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on the probability that the eligible person is employed full-time, defined as usually working 35 hours per week or more?

1.2 Policy Background

DACA was enacted by the Obama administration on June 15, 2012, through executive action. The program allowed qualifying individuals to apply for deferred action (protection from deportation) for a renewable two-year period and to obtain work authorization during that time. To be eligible, individuals had to meet the following criteria:

- Arrived in the United States before their 16th birthday
- Had not yet turned 31 as of June 15, 2012
- Lived continuously in the U.S. since June 15, 2007
- Were present in the U.S. on June 15, 2012 without lawful status
- Had no significant criminal history

Applications began being received on August 15, 2012, and in the first four years, nearly 900,000 initial applications were received, with approximately 90% approved. While DACA was not specific to any origin country, the majority of eligible individuals were from Mexico due to the structure of undocumented immigration to the United States.

2 Data

2.1 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, economic, and housing information from approximately 3 million households per year. I use the one-year ACS samples from 2006 through 2016, excluding multi-year pooled samples.

2.2 Sample Construction

The analytic sample is constructed through several filtering steps to identify the population most likely to be affected by DACA eligibility:

1. **Hispanic-Mexican Ethnicity**: Individuals who report Mexican Hispanic origin (HISPAN = 1)
2. **Born in Mexico**: Individuals whose birthplace is Mexico (BPL = 200)
3. **Non-Citizen Status**: Individuals who are not U.S. citizens (CITIZEN = 3)

Since the ACS cannot directly identify undocumented immigration status, I follow the common approach in the literature of assuming that non-citizen Mexican-born individuals without naturalization represent the likely undocumented population. This is an imperfect proxy but represents the best available approximation given data constraints.

2.3 Treatment and Control Groups

Following the specified research design:

- **Treatment Group**: Individuals aged 26–30 as of June 15, 2012
  - Born between June 16, 1981 and June 15, 1986

- **Control Group**: Individuals aged 31–35 as of June 15, 2012
  - Born between June 16, 1976 and June 15, 1981

I use BIRTHYR (birth year) and BIRTHQTR (birth quarter) to precisely assign individuals to groups. Birth quarters are coded as: Q1 = January–March, Q2 = April–June, Q3 = July–September, Q4 = October–December. Individuals born in 1981 are assigned to treatment if born in Q3–Q4 (after June 15) and to control if born in Q1–Q2 (before June 16).

2.4 Time Periods

- **Pre-treatment Period**: 2006–2011
- **Post-treatment Period**: 2013–2016

Year 2012 is excluded because DACA was implemented in June 2012, and the ACS does not record the month of interview. Thus, observations from 2012 cannot be reliably classified as pre- or post-treatment.

2.5 Key Variables

2.5.1 Outcome Variable

Full-Time Employment: A binary indicator equal to 1 if the individual usually works 35 or more hours per week (UHRSWORK $\geq$ 35), and 0 otherwise. This is the standard definition of full-time employment used by the Bureau of Labor Statistics.

2.5.2 Treatment Variables

- `treat`: Binary indicator equal to 1 for treatment group, 0 for control group
- `post`: Binary indicator equal to 1 for years 2013–2016, 0 for years 2006–2011
- `treat_post`: Interaction term (treat $\times$ post) representing the DiD estimator

2.5.3 Control Variables

- `female`: Binary indicator for female (SEX = 2)
- `married`: Binary indicator for married (MARST = 1 or 2)

- `educ_hs`: Binary indicator for high school completion (EDUC = 6)
- `educ_somecol`: Binary indicator for some college or more (EDUC > 6)

2.5.4 Survey Weights

All weighted analyses use PERWT (person weight) provided by IPUMS to produce population-representative estimates.

3 Methodology

3.1 Difference-in-Differences Design

The difference-in-differences approach estimates the causal effect of DACA eligibility by comparing the change in full-time employment for the treatment group (ages 26–30) to the change in full-time employment for the control group (ages 31–35), before and after the policy implementation.

The identifying assumption is that, in the absence of DACA, full-time employment trends would have evolved similarly for both groups (the parallel trends assumption). The control group serves as a counterfactual for what would have happened to the treatment group had DACA not been implemented.

3.2 Econometric Specification

The baseline 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 full-time employment status for individual i in year t
- Treat_i indicates treatment group membership
- Post_t indicates post-treatment period
- β_3 is the DiD estimate of the DACA effect

The preferred specification extends this to include demographic controls and fixed effects:

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

where:

- $\mathbf{X}_i$ is a vector of demographic controls (gender, marital status, education)
- δ_t represents year fixed effects
- θ_s represents state fixed effects

Note that when year fixed effects are included, the main effect of `post` is absorbed and therefore omitted from the model.

3.3 Standard Errors

All standard errors are computed using the HC1 heteroskedasticity-consistent variance estimator (White, 1980). This approach is robust to arbitrary forms of heteroskedasticity in the error term.

3.4 Event Study Specification

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

$$Y_{ist} = \alpha + \sum_{k \neq 2011} \beta_k (\text{Treat}_i \times \mathbf{1}[t = k]) + \mathbf{X}_i' \gamma + \delta_t + \theta_s + \epsilon_{ist} \tag{3}$$

where year 2011 serves as the reference category. The coefficients β_k for pre-treatment years should be close to zero and statistically insignificant if the parallel trends assumption holds.

4 Results

4.1 Sample Characteristics

Table 1 presents the sample sizes at each stage of data construction.

Table 1: Sample Construction

Filtering Step	**Observations**
Full ACS data (2006–2016)	33,851,425
Hispanic-Mexican, Mexico-born, Non-citizen	701,347
Ages 26–30 or 31–35 as of June 2012	181,229
Treatment group (ages 26–30)	84,681
Control group (ages 31–35)	96,548
Excluding year 2012 (final sample)	164,874
Pre-period (2006–2011)	102,280
Post-period (2013–2016)	62,594

4.2 Summary Statistics

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

Table 2: Summary Statistics by Group and Period

	Control (Ages 31–35)		**Treatment (Ages 26–30)**	
Variable	Pre	Post	Pre	Post
Full-time employment rate	0.611	0.587	0.613	0.605
Mean age (survey year)	30.1	36.0	25.1	31.0
Female proportion	0.442	0.470	0.418	0.445
Married proportion	0.606	0.647	0.439	0.569
Less than high school	0.544	0.549	0.481	0.485
High school	0.343	0.337	0.397	0.377
Some college or more	0.114	0.114	0.122	0.138
N (observations)	54,703	33,087	47,577	29,507

The treatment group is younger (by construction), less likely to be married, and has slightly higher educational attainment than the control group. Full-time employment rates are similar across groups in the pre-period (61.1% vs. 61.3%).

4.3 Raw Difference-in-Differences

Table 3 presents the raw (unadjusted) difference-in-differences calculation.

Table 3: Raw Difference-in-Differences

	Pre-Period	**Post-Period**	**Difference**
Treatment (Ages 26–30)	0.613	0.605	−0.008
Control (Ages 31–35)	0.611	0.587	−0.024
Difference-in-Differences			**0.016**

The raw DiD estimate suggests that DACA eligibility increased full-time employment by approximately 1.6 percentage points. Both groups experienced declines in full-time employment over the period, but the decline was smaller for the treatment group.

4.4 Regression Results

Table 4 presents the DiD regression estimates across five specifications.

Table 4: Difference-in-Differences Regression Results

	(1) Basic	**(2)** Weighted	**(3)** Controls	**(4)** Year FE	**(5)** Year + State FE
Treat × Post	0.0160***	0.0256***	0.0185***	0.0170***	0.0169***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)
Treat	0.002	−0.010***	−0.024***	−0.024***	−0.024***
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)
Post	−0.024***	−0.031***	−0.004	—	—
	(0.003)	(0.004)	(0.003)		
Female			−0.480***	−0.479***	−0.478***
			(0.003)	(0.003)	(0.003)
Married			−0.054***	−0.054***	−0.054***
			(0.003)	(0.003)	(0.003)
High School			0.031***	0.031***	0.030***
			(0.003)	(0.003)	(0.003)
Some College+			0.059***	0.059***	0.058***
			(0.004)	(0.004)	(0.004)
Weighted	No	Yes	Yes	Yes	Yes
Year FE	No	No	No	Yes	Yes
State FE	No	No	No	No	Yes
N	164,874	164,874	164,874	164,874	164,874

Notes: Robust (HC1) standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001

4.4.1 Interpretation of Results

Across all specifications, the DiD coefficient (Treat × Post) is positive and statistically significant at the 0.1% level. The estimates range from 1.6 percentage points (unweighted basic model) to 2.6 percentage points (weighted basic model).

The preferred specification (Model 5), which includes demographic controls, year fixed effects, and state fixed effects, estimates that DACA eligibility increased full-time employment by **1.69 percentage points** (SE = 0.005, 95% CI: [0.007, 0.027]).

The control variable coefficients are sensible:

- Women are approximately 48 percentage points less likely to work full-time than men
- Married individuals are 5.4 percentage points less likely to work full-time (possibly reflecting different household roles)
- High school graduates are 3 percentage points more likely to work full-time than those with less education
- Those with some college education are 6 percentage points more likely to work full-time

4.5 Preferred Estimate

Based on the analysis, the preferred estimate is from Model 5:

Preferred Estimate

Effect Size: **0.0169** (1.69 percentage points)
Standard Error: 0.00505
95% Confidence Interval: [0.007, 0.027]
Sample Size: 164,874
P-value: 0.0008

This model is preferred because it:

1. Uses survey weights to produce population-representative estimates
2. Controls for observable demographic differences between groups
3. Includes year fixed effects to absorb common time trends
4. Includes state fixed effects to control for time-invariant state-level factors

5 Robustness Checks

5.1 Alternative Outcome Measures

Table 5 presents results using alternative measures of employment.

Table 5: Robustness: Alternative Outcome Measures

Outcome	Coefficient	Std. Error	P-value
Full-time (UHRSWORK $\geq$ 35)	0.0169	0.0050	0.0008
Any employment (UHRSWORK $>$ 0)	0.0106	0.0044	0.0156
Employed (EMPSTAT = 1)	0.0165	0.0048	0.0006

The effect is robust to alternative definitions of employment, though the magnitude is somewhat smaller when using any employment (hours $>$ 0) as the outcome. The effect on EMPSTAT-based employment (0.0165) is nearly identical to the full-time effect, suggesting the primary impact was on intensive rather than extensive margin employment.

5.2 Heterogeneity by Gender

Table 6 presents separate estimates by gender.

Table 6: Heterogeneity by Gender

Subgroup	Coefficient	Std. Error	P-value
Males	0.0229	0.0059	$<$0.001
Females	$-$0.0009	0.0085	0.912

A notable finding is that the effect of DACA eligibility on full-time employment is driven entirely by males. For men, the effect is 2.3 percentage points ($p < 0.001$). For women, the effect is essentially zero and statistically insignificant. This heterogeneity may reflect gender differences in labor force participation patterns, occupational sorting, or the specific sectors where DACA beneficiaries found employment.

5.3 Parallel Trends Assessment

Table 7 shows full-time employment rates by year and group.

Table 7: Full-Time Employment Rates by Year and Group

Year	Control	Treatment
2006	0.689	0.668
2007	0.701	0.685
2008	0.676	0.665
2009	0.616	0.617
2010	0.587	0.577
2011	0.584	0.593
DACA Implementation (June 2012)		
2013	0.598	0.609
2014	0.599	0.621
2015	0.627	0.639
2016	0.630	0.647

Visual inspection suggests that both groups follow similar trends during the pre-period, with both experiencing declines during the Great Recession (2008–2010) and beginning to recover by 2011. After 2012, the treatment group shows relatively larger gains, consistent with a positive DACA effect.

5.4 Event Study Results

Table 8 presents event study coefficients with 2011 as the reference year.

Table 8: Event Study Coefficients (Reference: 2011)

Year	Coefficient	Std. Error	P-value
Pre-Treatment Period			
2006	−0.0263	0.0110	0.017
2007	−0.0250	0.0109	0.022
2008	−0.0184	0.0111	0.096
2009	−0.0064	0.0114	0.577
2010	−0.0238	0.0113	0.036
2011	(reference)	—	—
Post-Treatment Period			
2013	0.0014	0.0116	0.902
2014	0.0074	0.0114	0.519
2015	−0.0044	0.0115	0.698
2016	−0.0042	0.0116	0.718

The event study results reveal some concerns regarding the parallel trends assumption:

- The pre-treatment coefficients for 2006, 2007, and 2010 are negative and statistically significant, suggesting the treatment group had relatively lower full-time employment in these years compared to 2011.
- The post-treatment coefficients are small and statistically insignificant when estimated year-by-year, despite the pooled DiD being significant.

These findings suggest some caution in interpreting the results. The pre-treatment differences may indicate that the treatment and control groups were on somewhat different trajectories prior to DACA implementation, which could bias the DiD estimate. However, the pre-treatment differences are not consistently signed (2009 is close to zero), and the visual inspection of trends suggests the groups moved together during the Great Recession.

6 Discussion

6.1 Summary of Findings

This replication study finds evidence that DACA eligibility increased full-time employment among the target population by approximately 1.7 percentage points. This effect is:

- Statistically significant at conventional levels ($p < 0.001$)
- Robust to alternative model specifications
- Driven primarily by males, with no significant effect for females

6.2 Interpretation

The estimated effect of 1.7 percentage points represents a modest but meaningful impact. Given a baseline full-time employment rate of approximately 61%, this corresponds to a relative increase of about 2.8%. The effect is larger for males (2.3 percentage points, or approximately 3% relative to their baseline).

Several mechanisms could explain why DACA increased full-time employment:

1. **Work Authorization**: DACA provided legal authorization to work, allowing beneficiaries to take formal employment that they may have been ineligible for previously.
2. **Reduced Fear of Deportation**: The temporary protection from deportation may have increased job search intensity and willingness to take visible formal employment.

3. **Access to Driver's Licenses**: In many states, DACA recipients became eligible for driver's licenses, expanding their geographic job search area and enabling employment in occupations requiring driving.

4. **Employer Discrimination**: With valid work authorization documents, DACA recipients may have faced less discrimination in the hiring process for formal employment.

The finding that effects are concentrated among males may reflect:

- Higher baseline labor force attachment among men in this population
- Gender differences in the types of jobs held (e.g., construction, which may have been more affected by work authorization requirements)
- Different labor supply responses to the policy

6.3 Limitations

Several limitations should be noted:

1. **Sample Definition**: The analysis cannot directly identify undocumented immigrants. Using non-citizen status as a proxy likely includes some legal residents who were never eligible for DACA, potentially attenuating the estimated effect.

2. **Parallel Trends**: The event study analysis reveals some pre-treatment differences between groups, suggesting the parallel trends assumption may not hold perfectly.

3. **Treatment Definition**: The treatment is defined as eligibility, not actual DACA receipt. This is an intent-to-treat analysis; the effect on actual recipients would likely be larger.

4. **Comparison Group**: The control group (ages 31–35) is older and may differ from the treatment group in unobservable ways that affect employment trends.

5. **Cross-Sectional Data**: The ACS is a repeated cross-section, not a panel. We observe different individuals in each year, introducing potential sampling variation.

6.4 Comparison to Related Literature

The findings are generally consistent with the existing literature on DACA's labor market effects. Previous studies have found positive effects of DACA on employment, earnings, and labor force participation, though magnitudes vary depending on the research design and outcome measure.

Several key studies have examined DACA's effects using various methodologies:

- Studies using survey data have documented increases in labor force participation and employment among DACA recipients
- Research using administrative data has found wage gains associated with work authorization
- Studies examining educational outcomes have found increased high school completion and college enrollment rates

The magnitude of our estimate (1.7 percentage points) falls within the range found in the literature, though direct comparisons are complicated by differences in:

- Sample definitions (eligible vs. actual recipients)
- Outcome measures (full-time vs. any employment)
- Comparison groups (age-based vs. geography-based)
- Time periods examined

6.5 Policy Implications

The findings have several implications for immigration policy:

1. **Work Authorization Effects**: Legal work authorization appears to have meaningful effects on employment outcomes, suggesting that barriers to legal work are consequential for undocumented immigrants' labor market participation.
2. **Intensive Margin**: The stronger effect on full-time employment compared to any employment suggests that DACA primarily affected the intensive margin (hours worked) rather than the extensive margin (labor force entry). This may indicate that many individuals were already working informally and DACA enabled them to take more formal, full-time positions.

3. **Gender Differences**: The concentration of effects among males suggests that policy impacts may vary across demographic groups. Understanding these differences is important for predicting the effects of future immigration reforms.

4. **Labor Market Integration**: The positive employment effects suggest that work authorization facilitates better integration into the formal labor market, which may have downstream benefits for tax revenue, workplace protections, and economic productivity.

6.6 Directions for Future Research

Several extensions of this analysis would be valuable:

1. **Longer Time Horizon**: Examining outcomes beyond 2016 would reveal whether DACA's effects persisted, grew, or diminished over time as the policy matured and faced legal challenges.

2. **Wage Effects**: While this study focuses on employment, examining wage outcomes would provide a more complete picture of DACA's labor market effects.

3. **Spillover Effects**: DACA may have had spillover effects on non-eligible family members or on the broader labor market. Examining these effects would be informative.

4. **State Heterogeneity**: DACA's effects may vary across states due to differences in local labor markets, industries, and complementary policies (such as driver's license access).

5. **Occupational Mobility**: Examining whether DACA recipients moved into different occupations or industries would shed light on how work authorization affects job quality and career trajectories.

7 Conclusion

This independent replication study provides evidence that DACA eligibility increased full-time employment among Hispanic-Mexican, Mexican-born non-citizens by approximately 1.7 percentage points. The effect is statistically significant and robust to various model specifications. However, the analysis reveals some pre-treatment differences between treatment and control groups that warrant cautious interpretation of the causal claim.

The finding that effects are concentrated among males suggests that the labor market impacts of immigration policy may differ substantially by gender, a dimension that deserves further investigation in future research.

8 Technical Appendix

8.1 Variable Definitions

Table 9: IPUMS Variable Definitions

Variable	Definition and Coding
YEAR	Survey year (2006–2016)
HISPAN	Hispanic origin: 1 = Mexican
BPL	Birthplace: 200 = Mexico
CITIZEN	Citizenship status: 3 = Not a citizen
BIRTHYR	Year of birth
BIRTHQTR	Quarter of birth: 1 = Jan-Mar, 2 = Apr-Jun, 3 = Jul-Sep, 4 = Oct-Dec
SEX	Sex: 1 = Male, 2 = Female
MARST	Marital status: 1 = Married spouse present, 2 = Married spouse absent
EDUC	Educational attainment (general version): 0–5 = Less than HS, 6 = HS, 7+ = Some college+
UHRSWORK	Usual hours worked per week
EMPSTAT	Employment status: 1 = Employed
PERWT	Person weight for population estimates
STATEFIP	State FIPS code

8.2 Software and Code

The analysis was conducted using Python 3.14 with the following packages:

- pandas (data manipulation)
- numpy (numerical operations)
- statsmodels (regression analysis)
- scipy (statistical functions)

All code is provided in the accompanying `analysis.py` file. Robust standard errors were computed using the HC1 heteroskedasticity-consistent variance estimator.

8.3 Replication Files

The following files are included with this report:

- `analysis.py`: Main analysis script
- `results.json`: Numerical results in JSON format
- `model_summaries.txt`: Full regression output
- `yearly_means.csv`: Yearly employment rates by group
- `event_study.csv`: Event study coefficients
- `run_log_01.md`: Detailed log of all commands and decisions

8.4 Detailed Sample Construction

The sample construction process involves the following steps:

Step 1: Initial Population

The analysis begins with the full ACS data for years 2006–2016, comprising 33,851,425 individual-year observations. This includes all persons in sampled households who completed the ACS questionnaire.

Step 2: Ethnicity Filter

The sample is restricted to individuals who identify as Mexican Hispanic (HISPAN = 1). The HISPAN variable in IPUMS records detailed Hispanic origin, with code 1 specifically identifying individuals of Mexican origin (including Mexican American, Mexicano/Mexicana, Chicano/Chicana, and related self-identifications).

Step 3: Birthplace Filter

The sample is further restricted to individuals born in Mexico (BPL = 200). This excludes Mexican-American individuals born in the United States, who are citizens by birth and therefore not affected by DACA. The BPL variable records detailed birthplace based on country of origin.

Step 4: Citizenship Filter

The sample is restricted to non-citizens (CITIZEN = 3). The CITIZEN variable distinguishes between:

- N/A (not foreign-born)
- Born abroad of American parents (citizens at birth)

- Naturalized citizens
- Non-citizens (our target population)
- Other categories

By selecting CITIZEN = 3, we identify foreign-born individuals who have not obtained U.S. citizenship. This proxy for undocumented status is imperfect, as it includes some legal permanent residents who have not naturalized. However, given the age restrictions and Mexican origin of our sample, the majority are likely undocumented or were undocumented at the time of DACA implementation.

Step 5: Age Group Assignment

Using BIRTHYR and BIRTHQTR, individuals are assigned to treatment or control groups based on their age as of June 15, 2012:

- Treatment: Born June 16, 1981 – June 15, 1986 (ages 26–30)
- Control: Born June 16, 1976 – June 15, 1981 (ages 31–35)

Individuals outside these birth cohorts are excluded from analysis.

Step 6: Year Exclusion

Observations from 2012 are excluded because DACA was implemented mid-year (June 15, 2012) and the ACS does not record month of interview. Therefore, 2012 observations cannot be reliably classified as pre-treatment or post-treatment.

8.5 Identification Strategy Details

The difference-in-differences identification strategy relies on several key assumptions:

Assumption 1: Parallel Trends

In the absence of DACA, the treatment and control groups would have followed parallel employment trends. This is the critical identifying assumption. The event study analysis provides some evidence on this assumption, though the pre-treatment coefficients show some concerning variation.

Assumption 2: No Anticipation

Individuals did not change their behavior in anticipation of DACA before it was announced. Given that DACA was announced and implemented quickly in June 2012, substantial anticipation effects are unlikely.

Assumption 3: No Contemporaneous Shocks

There were no other policy changes or shocks affecting the treatment and control groups differentially at the time of DACA implementation. This assumption is difficult to verify directly but is supported by the use of control groups that differ only in age.

Assumption 4: Stable Unit Treatment Value (SUTVA)

The treatment of some individuals does not affect outcomes for other individuals. This could be violated if DACA created labor market competition effects, but such effects are likely small given the relatively small number of DACA recipients.

8.6 Sensitivity Analysis

The analysis includes several sensitivity checks:

Weighting: Results are presented both with and without survey weights. Weighted results are preferred for population-representative inference, but unweighted results provide a robustness check.

Fixed Effects: The progression from no fixed effects to year fixed effects to state fixed effects allows assessment of how much time trends and geographic heterogeneity affect the estimates.

Control Variables: The addition of demographic controls (gender, marital status, education) adjusts for compositional differences between groups, though the main results are similar with and without controls.

Standard Errors: Heteroskedasticity-robust standard errors (HC1) are used throughout to guard against violations of the homoskedasticity assumption. Clustering at the state level was also considered but not reported as the main specification.

References

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