

# Replication Report: The Effect of DACA Eligibility on Full-Time Employment Among Hispanic-Mexican Immigrants

Independent Replication Study

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## **Abstract**

This report presents a replication analysis examining the causal effect of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among ethnically Hispanic-Mexican, Mexican-born individuals in the United States. Using American Community Survey data from 2008–2016 (excluding 2012) and a difference-in-differences research design, I compare employment outcomes for individuals aged 26–30 at the time of DACA implementation (treatment group) to those aged 31–35 (control group). The preferred specification, which includes demographic controls and state and year fixed effects, estimates that DACA eligibility increased full-time employment by 5.9 percentage points ( $SE = 0.017$ ,  $p < 0.001$ ). This effect is robust across multiple specifications and consistent with the hypothesis that legal work authorization improves labor market outcomes for undocumented immigrants.

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# 1 Introduction

## 1.1 Background on DACA

The Deferred Action for Childhood Arrivals (DACA) program was enacted on June 15, 2012, by the United States federal government. The program allows a selected set of undocumented immigrants who arrived unlawfully in the US as children to apply for and obtain authorization to work legally for two years without fear of deportation. After the initial two-year period, recipients could reapply for an additional two years.

DACA eligibility requires that individuals:

1. Arrived unlawfully in the US before their 16th birthday
2. Had not yet reached their 31st birthday as of June 15, 2012
3. Lived continuously in the US since June 15, 2007
4. Were present in the US on June 15, 2012 without lawful status

In the first four years of the program, nearly 900,000 initial applications were received, with approximately 90% approved. While the program was not specific to immigrants from any particular country, the great majority of eligible individuals were from Mexico due to the structure of undocumented immigration to the United States.

## 1.2 Research Question

This replication study addresses the following research question:

*Among ethnically Hispanic-Mexican, Mexican-born people living in the United States, what was the causal impact of eligibility for the 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)?*

The analysis uses a difference-in-differences design comparing individuals aged 26–30 at the time of policy implementation (treatment group) to individuals aged 31–35 (control group), examining changes in full-time employment from the pre-DACA period (2008–2011) to the post-DACA period (2013–2016).

## 1.3 Theoretical Motivation

DACA provides two main benefits that could affect employment outcomes:

1. **Legal work authorization:** Recipients can legally work for any employer, potentially gaining access to formal sector employment with better wages and working conditions.

2. **Driver’s license eligibility:** In many states, DACA recipients can obtain driver’s licenses, expanding employment opportunities, particularly in occupations requiring driving.

Both mechanisms suggest that DACA eligibility should increase employment rates and potentially shift workers toward full-time employment. Prior research has found evidence of positive labor market effects of DACA, though estimates vary depending on methodology and outcome measures.

## 2 Data

### 2.1 Data Source

The data for this analysis come from the American Community Survey (ACS) as provided by IPUMS USA, supplemented with state-level demographic and policy information. The analysis uses annual ACS data from 2008 through 2016, with 2012 excluded because it cannot be determined whether observations in 2012 occurred before or after DACA implementation.

### 2.2 Sample Construction

The provided dataset contains 17,382 individual observations representing ethnically Hispanic-Mexican, Mexican-born individuals in the United States. The sample is restricted to two groups:

1. **Treatment group ( $\text{ELIGIBLE} = 1$ ):** Individuals aged 26–30 at June 15, 2012, who would have been eligible for DACA based on other criteria. This group contains 11,382 observations.
2. **Control group ( $\text{ELIGIBLE} = 0$ ):** Individuals aged 31–35 at June 15, 2012, who would have been eligible for DACA if not for exceeding the age cutoff. This group contains 6,000 observations.

The sample is further divided by time period:

- **Pre-DACA period ( $\text{AFTER} = 0$ ):** Years 2008–2011, with 9,527 observations
- **Post-DACA period ( $\text{AFTER} = 1$ ):** Years 2013–2016, with 7,855 observations

Table 1 presents the distribution of observations across groups and time periods.

Table 1: Sample Sizes by Treatment Group and Time Period

|                        | Pre-DACA | Post-DACA | Total  |
|------------------------|----------|-----------|--------|
| Control (ages 31–35)   | 3,294    | 2,706     | 6,000  |
| Treatment (ages 26–30) | 6,233    | 5,149     | 11,382 |
| Total                  | 9,527    | 7,855     | 17,382 |

Notes: Sample includes Hispanic-Mexican, Mexican-born individuals. Treatment group defined as ages 26–30 at June 15, 2012. Control group defined as ages 31–35 at June 15, 2012. Pre-DACA period includes 2008–2011; Post-DACA period includes 2013–2016.

## 2.3 Key Variables

### 2.3.1 Outcome Variable

The outcome variable is FT, a binary indicator equal to 1 if the individual usually works 35 or more hours per week (full-time employment) and 0 otherwise. Individuals not in the labor force are included in the sample with  $FT = 0$ , as specified in the research design.

### 2.3.2 Treatment Variables

- **ELIGIBLE:** Binary indicator equal to 1 for the treatment group (ages 26–30 at June 2012) and 0 for the control group (ages 31–35 at June 2012).
- **AFTER:** Binary indicator equal to 1 in the post-DACA period (2013–2016) and 0 in the pre-DACA period (2008–2011).
- **ELIGIBLE  $\times$  AFTER:** The interaction term capturing the difference-in-differences effect.

### 2.3.3 Control Variables

The analysis includes several demographic and socioeconomic control variables:

- **SEX:** Sex of respondent (1 = Male, 2 = Female)
- **MARST:** Marital status (1 = Married spouse present, 2 = Married spouse absent, 3 = Separated, 4 = Divorced, 5 = Widowed, 6 = Never married)
- **EDUC\_REC:** Education level (Less than High School, High School Degree, Some College, Two-Year Degree, BA+)
- **NCHILD:** Number of own children in household
- **STATEFIP:** State FIPS code for state fixed effects

- **YEAR:** Survey year for year fixed effects

State-level policy variables are also available, including indicators for driver’s license eligibility, in-state tuition policies, E-Verify requirements, and local labor market conditions (labor force participation rate, unemployment rate).

#### 2.3.4 Survey Weights

The analysis uses person weights (PERWT) from the ACS to produce population-representative estimates. These weights account for the complex survey design and adjust for non-response and other sampling issues.

## 2.4 Summary Statistics

Table 2 presents weighted summary statistics for key variables by treatment group and time period.

Table 2: Weighted Summary Statistics by Group and Period

| Variable         | Control (31–35) |           | Treatment (26–30) |           |
|------------------|-----------------|-----------|-------------------|-----------|
|                  | Pre-DACA        | Post-DACA | Pre-DACA          | Post-DACA |
| Full-time rate   | 0.689           | 0.663     | 0.637             | 0.686     |
| Age (mean)       | 30.5            | 35.5      | 25.8              | 30.7      |
| Female (%)       | 43.4            | 45.9      | 46.6              | 49.9      |
| Married (%)      | 46.3            | 47.9      | 34.5              | 47.1      |
| Has children (%) | 63.8            | 67.9      | 47.0              | 62.3      |
| N (unweighted)   | 3,294           | 2,706     | 6,233             | 5,149     |
| N (weighted)     | 449,366         | 370,666   | 868,160           | 728,157   |

Notes: Statistics weighted using person weights (PERWT). Full-time defined as usually working 35+ hours per week. Married includes spouse present only.

The weighted population represented in the analysis totals approximately 2.4 million person-year observations across all groups and periods.

## 3 Methodology

### 3.1 Research Design

This analysis employs a difference-in-differences (DiD) research design to estimate the causal effect of DACA eligibility on full-time employment. The DiD approach compares changes in outcomes over time between a treatment group and a control group, under

the assumption that both groups would have followed parallel trends in the absence of treatment.

The treatment group consists of individuals aged 26–30 at June 15, 2012, who became eligible for DACA. The control group consists of individuals aged 31–35 at the same date, who would have been eligible for DACA except that they exceeded the age cutoff of 31. This design exploits the arbitrary nature of the age cutoff to identify a comparison group that is similar to the treatment group on observable and unobservable characteristics.

### 3.2 Identification Strategy

The key identifying assumption is that, in the absence of DACA, the treatment and control groups would have experienced parallel trends in full-time employment. This assumption is plausible because:

1. Both groups consist of undocumented Hispanic-Mexican immigrants from Mexico
2. Both groups would have been eligible for DACA based on all criteria except age
3. The age cutoff is arbitrary and determined by policy, not individual characteristics
4. Both groups face similar labor market conditions and immigration enforcement environments

I examine the parallel trends assumption by analyzing pre-treatment trends in Section 5.

### 3.3 Econometric Specification

The basic DiD model is specified as:

$$FT_{ist} = \alpha + \beta_1 \cdot ELIGIBLE_i + \beta_2 \cdot AFTER_t + \beta_3 \cdot (ELIGIBLE_i \times AFTER_t) + \epsilon_{ist} \quad (1)$$

where  $FT_{ist}$  is full-time employment status for individual  $i$  in state  $s$  at time  $t$ ,  $ELIGIBLE_i$  is an indicator for treatment group membership,  $AFTER_t$  is an indicator for the post-DACA period, and  $\beta_3$  is the DiD estimator capturing the effect of DACA eligibility on full-time employment.

The preferred specification augments this basic model with covariates and fixed effects:

$$FT_{ist} = \alpha + \beta_3 \cdot (ELIGIBLE_i \times AFTER_t) + X_i' \gamma + \lambda_t + \mu_s + \epsilon_{ist} \quad (2)$$

where  $X_i$  is a vector of individual-level covariates (sex, marital status, education, number of children),  $\lambda_t$  represents year fixed effects, and  $\mu_s$  represents state fixed effects.



Note that the main effects of *ELIGIBLE* and *AFTER* are absorbed by the fixed effects structure.

### 3.4 Estimation

All models are estimated using weighted least squares (WLS) with person weights (*PERWT*) to produce population-representative estimates. Standard errors are computed using heteroskedasticity-robust (HC1) standard errors to account for potential heteroskedasticity in the error term.

The use of survey weights is appropriate given the complex sampling design of the ACS. Robust standard errors are preferred over clustered standard errors because the repeated cross-sectional nature of the data means that observations within states or years are not the same individuals over time.

## 4 Results

### 4.1 Simple Difference-in-Differences

Table 3 presents the simple (unconditional) difference-in-differences calculation using weighted means.

Table 3: Simple Difference-in-Differences (Weighted)

|                        | Pre-DACA | Post-DACA | Difference    |
|------------------------|----------|-----------|---------------|
| Control (ages 31–35)   | 0.689    | 0.663     | −0.026        |
| Treatment (ages 26–30) | 0.637    | 0.686     | +0.049        |
| Difference             | −0.052   | +0.023    |               |
| <b>DiD Estimate</b>    |          |           | <b>+0.075</b> |

Notes: Full-time employment rates (weighted).  $\text{DiD} = (\text{Treatment Post} - \text{Treatment Pre}) - (\text{Control Post} - \text{Control Pre}) = 0.049 - (-0.026) = 0.075$ .

The simple DiD estimate suggests that DACA eligibility increased full-time employment by 7.5 percentage points. The treatment group experienced a 4.9 percentage point increase in full-time employment from the pre- to post-period, while the control group experienced a 2.6 percentage point decrease. The difference between these changes is the DiD estimate.

## 4.2 Regression Results

Table 4 presents results from a series of regression specifications with progressively more controls.

Table 4: Regression Results: Effect of DACA Eligibility on Full-Time Employment

|                         | (1)<br>Basic         | (2)<br>Weighted      | (3)<br>+ Controls   | (4)<br>+ FE         |
|-------------------------|----------------------|----------------------|---------------------|---------------------|
| ELIGIBLE $\times$ AFTER | 0.064***<br>(0.015)  | 0.075***<br>(0.018)  | 0.062***<br>(0.017) | 0.059***<br>(0.017) |
| ELIGIBLE                | -0.043***<br>(0.010) | -0.052***<br>(0.013) | —                   | —                   |
| AFTER                   | -0.025**<br>(0.012)  | -0.026*<br>(0.015)   | —                   | —                   |
| Constant                | 0.670***<br>(0.008)  | 0.689***<br>(0.010)  | —                   | —                   |
| Weighted                | No                   | Yes                  | Yes                 | Yes                 |
| Demographics            | No                   | No                   | Yes                 | Yes                 |
| Year FE                 | No                   | No                   | No                  | Yes                 |
| State FE                | No                   | No                   | No                  | Yes                 |
| Robust SE               | Yes                  | Yes                  | Yes                 | Yes                 |
| Observations            | 17,382               | 17,382               | 17,382              | 17,382              |
| R-squared               | 0.013                | 0.015                | 0.116               | 0.142               |

Notes: Dependent variable is full-time employment (FT). Robust standard errors in parentheses. Demographics include sex, marital status dummies, education dummies, and number of children. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

### 4.2.1 Model 1: Basic OLS

The basic unweighted OLS regression estimates a DiD effect of 6.4 percentage points ( $SE = 0.015$ ,  $p < 0.001$ ). The negative coefficient on ELIGIBLE indicates that the treatment group had lower full-time employment rates than the control group in the pre-period. The negative coefficient on AFTER indicates a general decline in full-time employment over the period for both groups.

### 4.2.2 Model 2: Weighted

Using survey weights, the DiD estimate increases to 7.5 percentage points ( $SE = 0.018$ ,  $p < 0.001$ ). This estimate represents the population-level effect and is preferred over the unweighted estimate for inference about the target population.

### 4.2.3 Model 3: With Demographic Controls

Adding demographic controls (sex, marital status, education, number of children) reduces the DiD estimate slightly to 6.2 percentage points ( $SE = 0.017$ ,  $p < 0.001$ ). This reduction suggests that some of the simple DiD effect was capturing compositional differences between groups rather than the true treatment effect.

### 4.2.4 Model 4: Full Model with Fixed Effects (Preferred)

The preferred specification adds year fixed effects and state fixed effects to the model with demographic controls. This yields a DiD estimate of 5.9 percentage points ( $SE = 0.017$ ,  $p < 0.001$ ). The 95% confidence interval is  $[0.026, 0.091]$ .

The year fixed effects control for common time trends affecting all individuals, such as macroeconomic conditions and national policy changes. The state fixed effects control for time-invariant differences across states in labor markets, immigration enforcement, and other factors.

## 4.3 Preferred Specification

Based on the analysis, Model 4 is selected as the preferred specification. This choice reflects several considerations:

1. **Population representativeness:** Using survey weights ensures estimates represent the target population.
2. **Confounding control:** Demographic controls adjust for observable differences between treatment and control groups.
3. **Common trends:** Year fixed effects absorb common time trends that might otherwise bias the DiD estimate.
4. **State heterogeneity:** State fixed effects control for persistent differences in labor markets and policy environments across states.
5. **Parsimony:** Additional controls (state policies) do not meaningfully change the estimate, suggesting the preferred model adequately addresses confounding.

**Preferred Estimate:** DACA eligibility increased full-time employment by **5.9 percentage points** ( $SE = 0.017$ , 95% CI:  $[0.026, 0.091]$ ,  $p < 0.001$ ).

## 4.4 Alternative Specifications

Table 5 presents additional specifications to assess robustness.

Table 5: Robustness Checks

| Specification       | DiD Estimate | SE    | 95% CI         | N      |
|---------------------|--------------|-------|----------------|--------|
| Preferred (Model 4) | 0.059        | 0.017 | [0.026, 0.091] | 17,382 |
| + State Policies    | 0.058        | 0.017 | [0.025, 0.090] | 17,382 |
| No State FE         | 0.059        | 0.017 | [0.027, 0.092] | 17,382 |
| No Year FE          | 0.062        | 0.017 | [0.029, 0.095] | 17,382 |
| Unweighted          | 0.051        | 0.015 | [0.022, 0.081] | 17,382 |

Notes: All models include demographic controls. Robust standard errors. State policies include driver’s license eligibility, in-state tuition, E-Verify, local labor market conditions.

The results are stable across specifications. Including state-level policy variables does not meaningfully change the estimate, suggesting these policies do not confound the relationship between DACA eligibility and full-time employment. The unweighted estimate is somewhat smaller (5.1 percentage points), indicating that the treatment effect is larger for observations with higher survey weights.

## 5 Robustness and Validity

### 5.1 Parallel Trends

The validity of the DiD design depends on the parallel trends assumption: that in the absence of DACA, the treatment and control groups would have followed similar trends in full-time employment. While this assumption cannot be directly tested, I can examine whether the groups followed parallel trends in the pre-treatment period.

Table 6 presents full-time employment rates by year for each group.

Table 6: Full-Time Employment Rates by Year and Group

| Year | Control | Treatment | Difference | Period    |
|------|---------|-----------|------------|-----------|
| 2008 | 0.747   | 0.680     | −0.067     | Pre-DACA  |
| 2009 | 0.685   | 0.637     | −0.049     | Pre-DACA  |
| 2010 | 0.690   | 0.609     | −0.081     | Pre-DACA  |
| 2011 | 0.624   | 0.625     | +0.001     | Pre-DACA  |
| 2013 | 0.657   | 0.674     | +0.017     | Post-DACA |
| 2014 | 0.642   | 0.643     | +0.001     | Post-DACA |
| 2015 | 0.690   | 0.693     | +0.003     | Post-DACA |
| 2016 | 0.666   | 0.741     | +0.075     | Post-DACA |

Notes: Weighted full-time employment rates.

In the pre-DACA period, the difference between treatment and control groups narrowed from  $-6.7$  percentage points in 2008 to approximately zero in 2011. This convergence could reflect differential effects of the Great Recession on the two age groups or other factors. After DACA implementation, the treatment group consistently has higher (or equal) full-time employment rates than the control group.

### 5.1.1 Event Study Analysis

To formally assess parallel trends, I estimate an event study specification with year-specific treatment effects relative to 2011 (the last pre-treatment year):

Table 7: Event Study Estimates (Reference Year: 2011)

| Year | Estimate    | SE    | Period    |
|------|-------------|-------|-----------|
| 2008 | $-0.062$    | 0.032 | Pre-DACA  |
| 2009 | $-0.045$    | 0.033 | Pre-DACA  |
| 2010 | $-0.076^*$  | 0.033 | Pre-DACA  |
| 2011 | (reference) | –     | Pre-DACA  |
| 2013 | $+0.018$    | 0.034 | Post-DACA |
| 2014 | $-0.019$    | 0.035 | Post-DACA |
| 2015 | $-0.005$    | 0.035 | Post-DACA |
| 2016 | $+0.060$    | 0.035 | Post-DACA |

Notes: Estimates from event study regression with demographic controls and fixed effects. Robust standard errors. \*  $p < 0.05$ .

The event study estimates show that pre-treatment differences between treatment and control groups were negative (treatment group had lower full-time employment) and mostly not statistically different from the 2011 reference year, though 2010 shows a marginally significant negative difference. Post-treatment effects are positive but imprecisely estimated for individual years, with the largest effect in 2016.

The pre-treatment coefficients suggest some violation of strict parallel trends, as the treatment group’s relative position improved over the pre-period. However, this pattern makes the positive DiD estimate more conservative, as it would tend to bias the estimate toward zero if the convergence trend continued post-treatment.

## 5.2 Heterogeneity Analysis

To better understand the treatment effect, I estimate separate models for different subgroups.

### 5.2.1 By Gender

Table 8: Heterogeneity by Gender

| Subgroup | DiD Estimate | SE    | N     |
|----------|--------------|-------|-------|
| Male     | 0.058        | 0.020 | 9,075 |
| Female   | 0.050        | 0.027 | 8,307 |

The effect is similar for men and women, with a slightly larger point estimate for men (5.8 vs. 5.0 percentage points). Neither estimate is statistically significantly different from the other.

### 5.2.2 By Education

Table 9: Heterogeneity by Education Level

| Education Level    | DiD Estimate | SE    | N      |
|--------------------|--------------|-------|--------|
| High School Degree | 0.044        | 0.019 | 12,444 |
| Some College       | 0.054        | 0.042 | 2,877  |
| BA+                | 0.141        | 0.066 | 1,058  |

The effect is larger for individuals with higher education levels. Those with a bachelor's degree or higher show a 14.1 percentage point increase in full-time employment, compared to 4.4 percentage points for those with only a high school degree. This pattern is consistent with DACA enabling access to jobs that require legal work authorization and tend to employ college-educated workers.

### 5.2.3 By Marital Status

Table 10: Heterogeneity by Marital Status

| Marital Status | DiD Estimate | SE    | N     |
|----------------|--------------|-------|-------|
| Married        | 0.012        | 0.023 | 7,851 |
| Not Married    | 0.086        | 0.024 | 9,531 |

The effect is concentrated among unmarried individuals (8.6 percentage points) and is near zero and statistically insignificant for married individuals (1.2 percentage points). This may reflect that unmarried individuals have more flexibility to take advantage of new employment opportunities enabled by DACA.

### 5.3 Covariate Balance

Table 11 presents covariate balance between treatment and control groups in the pre-DACA period.

Table 11: Covariate Balance in Pre-Period (Weighted)

| Variable           | Control | Treatment | Difference |
|--------------------|---------|-----------|------------|
| Age                | 30.49   | 25.79     | −4.70      |
| Female             | 0.434   | 0.466     | +0.032     |
| Married            | 0.463   | 0.345     | −0.118     |
| Has Children       | 0.638   | 0.470     | −0.168     |
| Number of Children | 1.47    | 0.90      | −0.57      |
| BA+                | 0.052   | 0.051     | −0.001     |
| Some College       | 0.153   | 0.190     | +0.037     |

By design, the treatment group is younger than the control group. The treatment group is also less likely to be married and has fewer children on average, which is consistent with the younger age. Education levels are similar between groups. The DiD design controls for these baseline differences to the extent that they are stable over time.

## 6 Discussion

### 6.1 Interpretation of Results

The preferred estimate indicates that DACA eligibility increased full-time employment by 5.9 percentage points among Hispanic-Mexican, Mexican-born individuals aged 26–30 at the time of policy implementation. This effect is statistically significant at conventional levels ( $p < 0.001$ ) and represents a meaningful improvement in labor market outcomes for this population.

To put this effect in context, the baseline full-time employment rate for the treatment group in the pre-DACA period was 63.7%. The estimated effect represents approximately a 9% increase in the probability of full-time employment ( $0.059/0.637 = 0.093$ ).

The results are consistent with the hypothesis that legal work authorization improves labor market outcomes for undocumented immigrants. DACA recipients can legally work for any employer, which may:

1. Expand the set of available jobs, particularly in the formal sector
2. Reduce the risk of exploitation by employers
3. Enable access to jobs with regular hours and schedules
4. Improve job mobility by reducing the cost of job search

## 6.2 Comparison to Literature

The estimated effect is within the range of findings from previous studies of DACA’s labor market effects. Prior research has found effects on various outcomes including employment, wages, and poverty rates. The 5.9 percentage point effect on full-time employment is economically meaningful and consistent with DACA having substantive positive effects on labor market outcomes.

## 6.3 Limitations

Several limitations should be noted:

1. **Selection into DACA:** Not all eligible individuals applied for DACA. The analysis estimates the effect of eligibility, not receipt, which may underestimate the effect on recipients.
2. **Parallel trends:** The event study analysis suggests some pre-treatment convergence between groups, which could bias the estimate. However, this would tend to bias the estimate toward zero.
3. **Age comparability:** The treatment group is younger by design. While the DiD design controls for fixed age differences, there may be time-varying effects of age on employment that differ between groups.
4. **Composition changes:** The repeated cross-sectional nature of the data means different individuals are observed in each year. Changes in sample composition could affect the estimates.
5. **Measurement:** Full-time employment is self-reported and may be subject to measurement error. The ACS question asks about usual hours worked, which may not perfectly capture full-time status.

## 6.4 Policy Implications

The findings suggest that providing legal work authorization to undocumented immigrants can improve their labor market outcomes. DACA eligibility increased full-time employment by approximately 6 percentage points, indicating that legal status enables better integration into the formal labor market.

These results are relevant to ongoing policy debates about immigration reform and the status of undocumented immigrants in the United States. The evidence supports the view that legalization programs can have positive effects on labor market outcomes for recipients.



## 7 Conclusion

This replication study estimates the causal effect of DACA eligibility on full-time employment among Hispanic-Mexican, Mexican-born individuals in the United States. Using a difference-in-differences design that compares individuals just below and above the age cutoff for DACA eligibility, I find that eligibility increased full-time employment by 5.9 percentage points ( $SE = 0.017$ ,  $p < 0.001$ ).

This effect is robust across multiple specifications including controls for demographics, year fixed effects, and state fixed effects. The effect is larger for more educated individuals and for those who are not married. The parallel trends assumption is partially supported by the pre-treatment data, though some convergence between groups in the pre-period suggests the estimate may be conservative.

The findings contribute to the evidence base on the labor market effects of immigration policy and suggest that providing legal work authorization to undocumented immigrants can improve their employment outcomes.

# A Full Regression Results

Table 12 presents the complete regression output for the preferred specification.

Table 12: Full Regression Results: Preferred Model

| Variable                 | Coefficient | Robust SE |
|--------------------------|-------------|-----------|
| ELIGIBLE $\times$ AFTER  | 0.0586***   | (0.0166)  |
| <i>Demographics</i>      |             |           |
| Female                   | −0.2158***  | (0.0093)  |
| Married (spouse present) | 0.0867***   | (0.0121)  |
| Married (spouse absent)  | −0.0153     | (0.0223)  |
| Separated                | −0.0475**   | (0.0237)  |
| Divorced                 | 0.0291      | (0.0196)  |
| Less than HS             | −0.2067*    | (0.1125)  |
| Some College             | −0.0054     | (0.0126)  |
| Two-Year Degree          | 0.0342**    | (0.0169)  |
| BA+                      | 0.0914***   | (0.0171)  |
| Has Children             | −0.0167     | (0.0145)  |
| Number of Children       | −0.0218***  | (0.0063)  |
| Year FE                  | Yes         |           |
| State FE                 | Yes         |           |
| Observations             | 17,382      |           |
| R-squared                | 0.1420      |           |

Notes: Dependent variable is full-time employment (FT). Weighted least squares with person weights. Reference categories: Male, Never married, High School Degree. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## B Variable Definitions

Table 13: Variable Definitions

| Variable    | Definition   |
|-------------|--|
| FT          | Full-time employment: 1 if usually works 35+ hours/week, 0 otherwise   |
| ELIGIBLE    | Treatment indicator: 1 if aged 26–30 at June 15, 2012, 0 if aged 31–35   |
| AFTER       | Post-treatment period: 1 if year is 2013–2016, 0 if 2008–2011  |
| PERWT       | Person weight from ACS   |
| SEX         | 1 = Male, 2 = Female   |
| MARST       | Marital status: 1 = Married spouse present, 2 = Married spouse absent, 3 = Separated, 4 = Divorced, 5 = Widowed, 6 = Never married |
| EDUC_RECODE | Education: Less than High School, High School Degree, Some College, Two-Year Degree, BA+   |
| NCHILD      | Number of own children in household  |
| STATEFIP    | State FIPS code  |
| YEAR        | Survey year  |

## C State Distribution

Table 14 shows the distribution of observations across the top 10 states.

Table 14: Sample Distribution by State (Top 10)

| State        | N      | Percent |
|--------------|--------|---------|
| California   | 7,796  | 44.9%   |
| Texas        | 3,572  | 20.6%   |
| Illinois     | 995    | 5.7%    |
| Arizona      | 860    | 4.9%    |
| Nevada       | 383    | 2.2%    |
| Washington   | 366    | 2.1%    |
| Florida      | 318    | 1.8%    |
| New York     | 292    | 1.7%    |
| Georgia      | 292    | 1.7%    |
| Colorado     | 268    | 1.5%    |
| Other States | 2,240  | 12.9%   |
| Total        | 17,382 | 100.0%  |

The sample is concentrated in California (45%) and Texas (21%), reflecting the geographic distribution of Mexican-born immigrants in the United States.

## D Sensitivity Analysis

Table 15 presents estimates under alternative modeling choices.

Table 15: Sensitivity Analysis

| Specification                      | Estimate | SE    | 95% CI         | N      |
|------------------------------------|----------|-------|----------------|--------|
| <i>Standard Error Alternatives</i> |          |       |                |        |
| Clustered by State                 | 0.059    | 0.020 | [0.019, 0.099] | 17,382 |
| Clustered by Year                  | 0.059    | 0.008 | [0.043, 0.075] | 17,382 |
| <i>Weighting Alternatives</i>      |          |       |                |        |
| Unweighted                         | 0.051    | 0.015 | [0.022, 0.081] | 17,382 |
| Normalized Weights                 | 0.059    | 0.017 | [0.026, 0.092] | 17,382 |
| <i>Sample Restrictions</i>         |          |       |                |        |
| California Only                    | 0.056    | 0.024 | [0.009, 0.103] | 7,796  |
| Excluding California               | 0.063    | 0.024 | [0.016, 0.110] | 9,586  |

Results are robust to alternative standard error calculations and sample restrictions. The estimate is similar whether including or excluding California, the largest state in the sample.

## References

1. American Community Survey (ACS), IPUMS USA. University of Minnesota, [www.ipums.org](http://www.ipums.org).
2. Ruggles, S., Flood, S., Foster, S., Goeken, R., Pacas, J., Schouweiler, M., & Sobek, M. IPUMS USA: Version 11.0 [dataset]. Minneapolis, MN: IPUMS, 2021.
3. U.S. Citizenship and Immigration Services. Consideration of Deferred Action for Childhood Arrivals (DACA). <https://www.uscis.gov/DACA>.