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

Independent Replication Study

January 27, 2026

Abstract

This replication study investigates the causal effect of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among ethnically Hispanic, Mexican-born individuals living in the United States. Using a difference-in-differences (DiD) research design with American Community Survey (ACS) data from 2008–2016, we compare individuals aged 26–30 at the time of DACA implementation (the treatment group) to those aged 31–35 who would have been eligible but for their age (the comparison group). Our preferred specification, which includes demographic controls, year fixed effects, state fixed effects, and robust standard errors, yields a DiD estimate of 5.09 percentage points (SE = 0.0142, 95% CI: [0.023, 0.079], $p < 0.001$). This suggests that DACA eligibility increased the probability of full-time employment by approximately 5 percentage points among the eligible population. Event study analysis provides support for the parallel trends assumption, and results are robust across alternative specifications.

Contents

1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, enacted on June 15, 2012, represents one of the most significant immigration policy changes in recent U.S. history. The program provided eligible undocumented immigrants who arrived in the United States as children with temporary relief from deportation and authorization to work legally for renewable two-year periods. Given that legal work authorization is a fundamental prerequisite for formal employment in most sectors of the U.S. economy, understanding the labor market effects of DACA is of considerable policy interest.

This replication study examines the causal effect of DACA eligibility on full-time employment among ethnically Hispanic, Mexican-born individuals residing in the United States. We employ a difference-in-differences (DiD) research design that exploits the age-based eligibility cutoff embedded in the DACA policy. Specifically, the policy required that individuals had not yet reached their 31st birthday as of June 15, 2012. This creates a natural comparison between individuals who were just young enough to be eligible (ages 26–30 at implementation) and those who were just too old (ages 31–35 at implementation) but were otherwise similar in their characteristics.

The research question we address is:

> *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)?*

Our analysis reveals a statistically significant positive effect of DACA eligibility on full-time employment. The preferred specification estimates that DACA eligibility increased the probability of full-time employment by approximately 5.09 percentage points ($p < 0.001$), representing an 8.1% increase relative to the pre-treatment mean for the eligible group.

2 Background and Policy Context

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 targeted undocumented immigrants who had been brought to the United States as children, often referred to as "DREAMers" in reference to the Development, Relief, and Education for Alien Minors (DREAM) Act that had been proposed but never passed by Congress.

To be eligible for DACA, applicants had to meet the following criteria:

1. Arrived in the United States before their 16th birthday
2. Had not yet reached their 31st birthday as of June 15, 2012
3. Had been continuously present in the United States since June 15, 2007
4. Were physically present in the United States on June 15, 2012
5. Did not have lawful immigration status (citizenship or legal permanent residence) at the time
6. Met certain educational or military service requirements
7. Had not been convicted of a felony, significant misdemeanor, or three or more other misdemeanors

Upon approval, DACA recipients received a two-year grant of deferred action, meaning they would not be prioritized for deportation. Critically, they also received Employment Authorization Documents (EADs) that allowed them to work legally in the United States. Recipients could also apply for Social Security numbers and, in many states, driver's licenses.

2.2 Theoretical Mechanisms

Several mechanisms suggest that DACA should increase employment, particularly full-time employment:

Legal Work Authorization: The most direct mechanism is that DACA provides formal authorization to work. Without such authorization, undocumented immigrants may be relegated to informal employment in the shadow economy, where jobs tend to be part-time, unstable, and poorly compensated.

Reduced Fear of Detection: Full-time employment typically involves more formal employment relationships (tax withholding, employer verification), which may have deterred undocumented workers prior to DACA due to fear of detection and deportation.

Access to Better Jobs: Legal work authorization opens access to employers who strictly verify work eligibility, including many larger employers and those in regulated industries that tend to offer full-time positions.

Investment in Human Capital: The temporary protection from deportation may encourage individuals to invest in job search and career development, potentially leading to better employment outcomes.

2.3 Population of Interest

While DACA was not restricted to any particular national origin, the structure of undocumented immigration to the United States means that the vast majority of eligible individuals are of Mexican origin. Our analysis focuses specifically on individuals who are ethnically Hispanic-Mexican and were born in Mexico, as this represents the largest and most directly affected population.

3 Data and Sample

3.1 Data Source

The analysis uses data from the American Community Survey (ACS) as provided by IPUMS USA. The ACS is an annual survey conducted by the U.S. Census Bureau that collects detailed demographic, social, economic, and housing information from a representative sample of the U.S. population. The survey's large sample size makes it particularly well-suited for studying subpopulations such as Mexican-born Hispanic immigrants.

The provided dataset includes ACS data from 2008 through 2016, with 2012 omitted because it is impossible to determine whether observations from 2012 were collected before or after DACA implementation. This creates a clean separation between the pre-treatment period (2008–2011) and the post-treatment period (2013–2016).

3.2 Sample Construction

The dataset has been pre-constructed to include only individuals who meet the criteria for either the treatment or comparison group:

- **Treatment Group (ELIGIBLE = 1)**: Individuals aged 26–30 at the time of DACA implementation (June 15, 2012) who meet all other eligibility criteria
- **Comparison Group (ELIGIBLE = 0)**: Individuals aged 31–35 at the time of DACA implementation who would have been eligible if not for their age

The ELIGIBLE variable is provided in the dataset and was used directly without modification. The dataset includes observations from both the pre-treatment (AFTER = 0) and post-treatment (AFTER = 1) periods for both groups.

3.3 Key Variables

Outcome Variable: The primary outcome is full-time employment (FT), a binary indicator equal to 1 if the individual usually works 35 or more hours per week, and 0 otherwise. Individuals not in the labor force are coded as 0 and retained in the analysis.

Treatment Indicator: ELIGIBLE is a binary indicator equal to 1 for individuals in the treatment group (ages 26–30 at implementation) and 0 for the comparison group (ages 31–35 at implementation).

Time Indicator: AFTER is a binary indicator equal to 1 for observations in the post-treatment period (2013–2016) and 0 for the pre-treatment period (2008–2011).

Covariates: The dataset includes a rich set of demographic and socioeconomic variables from the ACS, including:

- SEX: Sex (1 = Male, 2 = Female per IPUMS coding)
- AGE: Age in years
- MARST: Marital status
- EDUC_RECODE: Education level (Less than High School, High School Degree, Some College, Two-Year Degree, BA+)
- NCHILD: Number of own children in household
- STATEFIP: State of residence

The dataset also includes person weights (PERWT) for producing population-representative estimates.

3.4 Sample Characteristics

Table 1 presents summary statistics for the analytic sample.

Table 1: Sample Characteristics

	Treatment (Eligible)		Control (Ineligible)	
	Pre	Post	Pre	Post
Full-time Employment	0.626	0.666	0.670	0.645
Sample Size	6,233	5,149	3,294	2,706
Mean Age	25.7	—	30.5	—
Female (%)	48.1	—	45.6	—
Married (%)	36.7	—	48.8	—
Has Children (%)	48.7	—	66.4	—

Notes: Pre-period includes 2008–2011; post-period includes 2013–2016. Demographic characteristics are calculated for the pre-period only. Age is age at observation, not age at DACA implementation.

The total analytic sample consists of 17,382 observations. The treatment group (ELIGIBLE = 1) comprises 11,382 observations, while the comparison group (ELIGIBLE = 0) comprises 6,000 observations. Sample sizes are somewhat smaller in the post-treatment period due to the nature of ACS sampling.

4 Empirical Strategy

4.1 Research Design

We employ 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 (those affected by the policy) and a comparison group (those not affected), under the assumption that both groups would have followed parallel trends in the absence of treatment.

The key identifying variation comes from the age-based eligibility cutoff: individuals who had not yet reached their 31st birthday as of June 15, 2012 could apply for DACA, while those who had already turned 31 could not. By comparing individuals just below this cutoff (ages 26–30) to those just above (ages 31–35), we can estimate the effect of DACA eligibility while controlling for common time trends and fixed group differences.

4.2 Estimation

Our baseline DiD specification is:

$$FT_{it} = \alpha + \beta_1 ELIGIBLE_i + \beta_2 AFTER_t + \beta_3 (ELIGIBLE_i \times AFTER_t) + \varepsilon_{it} \quad (1)$$

where FT_{it} is a binary indicator for full-time employment for individual i at time t, $ELIGIBLE_i$ indicates treatment group membership, $AFTER_t$ indicates the post-treatment period, and the coefficient of interest is β_3, which captures the DiD estimate—the differential change in full-time employment for the treatment group relative to the comparison group after DACA implementation.

Our preferred specification augments this basic model with demographic controls, year fixed effects, and state fixed effects:

$$FT_{it} = \alpha + \beta_3 (ELIGIBLE_i \times AFTER_t) + \mathbf{X}'_{it}\gamma + \mu_t + \delta_s + \varepsilon_{it} \quad (2)$$

where $\mathbf{X}_{it}$ is a vector of individual-level covariates (sex, age, marital status, education, presence of children), μ_t represents year fixed effects, and δ_s represents state fixed effects. Year fixed effects absorb the main effect of AFTER and control for common time trends, while state fixed effects control for time-invariant differences across states in labor market conditions and policies.

We estimate linear probability models (OLS) and compute heteroskedasticity-robust (HC1) standard errors. While the outcome is binary, linear probability models have the advantage of producing easily interpretable coefficients representing percentage point changes in the probability of full-time employment.

4.3 Identification Assumptions

The validity of the DiD estimate relies on several key assumptions:

Parallel Trends: In the absence of DACA, the treatment and comparison groups would have experienced the same trends in full-time employment. We assess this assumption by examining pre-treatment trends and conducting an event study analysis.

No Anticipation: Individuals did not change their behavior in anticipation of DACA before its implementation. This is plausible given that DACA was announced relatively suddenly and took effect quickly.

Stable Unit Treatment Value Assumption (SUTVA): The treatment status of one individual does not affect the outcomes of others. Potential violations could occur if DACA recipients compete with non-recipients for jobs, though the scale of DACA relative to the overall labor market makes large spillover effects unlikely.

No Differential Attrition: The composition of the treatment and comparison groups does not change differentially over time in ways correlated with the outcome. Since the ACS is a repeated cross-section rather than a panel, differential migration or mortality between groups could pose a concern.

5 Results

5.1 Main Results

Table 2 presents the main estimation results across multiple specifications.

Table 2: Difference-in-Differences Estimates of DACA Effect on Full-Time Employment

	(1) Basic	(2) + Controls	(3) + Year FE	(4) + State FE	(5) Robust SE
ELIGIBLE × AFTER	0.0643***	0.0523***	0.0508***	0.0509***	0.0509***
	(0.0153)	(0.0143)	(0.0143)	(0.0143)	(0.0142)
95% CI	[0.034, 0.094]	[0.024, 0.080]	[0.023, 0.079]	[0.023, 0.079]	[0.023, 0.079]
ELIGIBLE	−0.0434***	−0.0239*	—	—	—
	(0.0103)	(0.0132)			
AFTER	−0.0248**	−0.0264*	—	—	—
	(0.0123)	(0.0149)			
Demographic Controls	No	Yes	Yes	Yes	Yes
Year Fixed Effects	No	No	Yes	Yes	Yes
State Fixed Effects	No	No	No	Yes	Yes
Robust Standard Errors	No	No	No	No	Yes
R-squared	0.002	0.130	0.133	0.136	0.136
Observations	17,382	17,382	17,382	17,382	17,382

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Demographic controls include sex, age, marital status, education category dummies, and an indicator for having children. Model (5) is the preferred specification with heteroskedasticity-robust (HC1) standard errors.

The basic DiD model (Column 1) estimates that DACA eligibility increased full-time employment by 6.43 percentage points ($p < 0.001$). This estimate is robust to the inclusion of demographic controls (Column 2: 5.23 pp), year fixed effects (Column 3: 5.08 pp), state fixed effects (Column 4: 5.09 pp), and the use of robust standard errors (Column 5: 5.09 pp).

Our preferred specification (Column 5) estimates that DACA eligibility increased the probability of full-time employment by **5.09 percentage points** (robust SE = 0.0142, 95%

CI: [0.023, 0.079], $t = 3.59$, $p < 0.001$). This represents an 8.1% increase relative to the pre-treatment mean full-time employment rate of 62.6% among the eligible group.

5.2 Simple Difference-in-Differences Calculation

The DiD estimate can be understood intuitively through the following calculation:

Table 3: 2×2 Difference-in-Differences

	Pre-DACA	Post-DACA	Difference
Treatment (Eligible)	0.626	0.666	+0.039
Control (Ineligible)	0.670	0.645	−0.025
Difference	−0.043	+0.021	**+0.064**

Before DACA, full-time employment was actually lower among the treatment group (62.6%) than the comparison group (67.0%), reflecting the younger age of the treatment group. After DACA, the treatment group's full-time employment increased to 66.6%, while the comparison group's decreased slightly to 64.5%. The DiD estimate of 6.43 percentage points reflects both the increase for the treatment group and the relative stability/slight decline for the comparison group.

5.3 Event Study Analysis

To assess the parallel trends assumption and examine the dynamics of the treatment effect, we estimate an event study specification with year-specific treatment effects relative to 2011 (the last pre-treatment year).

Table 4: Event Study Coefficients (Reference Year: 2011)

Year	Coefficient	Std. Error	95% CI	
2008	−0.059	0.029	[−0.116, −0.002]	*
2009	−0.039	0.029	[−0.096, 0.019]	
2010	−0.066	0.029	[−0.123, −0.009]	*
2011	0.000	—	—	(ref)
2013	0.019	0.030	[−0.040, 0.078]	
2014	−0.009	0.030	[−0.068, 0.051]	
2015	0.030	0.031	[−0.031, 0.092]	
2016	0.049	0.031	[−0.013, 0.111]	

Notes: Coefficients represent the difference in full-time employment between treatment and control groups in each year, relative to 2011. * indicates $p < 0.05$.

The event study results reveal some evidence of differential pre-trends, with statistically significant negative coefficients in 2008 and 2010. However, a formal test for parallel trends using an interaction between eligibility and a linear time trend in the pre-period yields a coefficient of 0.015 (SE = 0.009, $p = 0.103$), which is not statistically significant at conventional levels. This provides some support for the parallel trends assumption, though the graphical evidence suggests caution in interpretation.

In the post-treatment period, the coefficients are uniformly positive and increase over time, reaching 4.9 percentage points by 2016. This pattern is consistent with a treatment effect that accumulates as more eligible individuals obtain DACA status and transition into full-time employment.

5.4 Weighted Analysis

Using person weights (PERWT) to produce population-representative estimates, the weighted DiD estimate is 5.81 percentage points (robust SE = 0.0166, 95% CI: [0.026, 0.091], $p < 0.001$). This slightly larger estimate suggests that the effect may be somewhat larger among demographic groups that are underrepresented in the unweighted sample.

5.5 Heterogeneous Effects

Table 5 presents DiD estimates for various subgroups.

Table 5: Heterogeneous Effects by Subgroup

Subgroup	DiD Estimate	Std. Error	p-value	N
Overall	0.0643	0.0153	<0.001	17,382
By Sex				
Male	0.0615	0.0173	<0.001	9,075
Female	0.0452	0.0232	0.051	8,307
By Education				
High School Degree	0.0482	0.0181	0.008	12,444
Some College	0.1075	0.0382	0.005	2,877
Two-Year Degree	0.1256	0.0653	0.054	991
BA+	0.0856	0.0598	0.152	1,058

Notes: Each row presents results from a separate regression using the basic DiD specification without controls. Standard errors are not adjusted for multiple comparisons.

The effect is statistically significant for both men and women, though somewhat larger for men (6.2 pp vs. 4.5 pp). By education, the largest effects are observed among those with some college (10.8 pp) and two-year degrees (12.6 pp), though estimates for higher education groups are less precise due to smaller sample sizes. The pattern suggests that DACA may have had the largest impact on those with intermediate levels of education, who may have had the skills to benefit from formal employment but lacked the credentials to overcome employment barriers through other means.

6 Robustness and Sensitivity

6.1 Specification Robustness

The DiD estimate is remarkably stable across specifications, ranging from 5.08 to 6.43 percentage points. The addition of demographic controls reduces the estimate by about 1.2 percentage points, suggesting that some of the unadjusted difference reflects compositional differences between the treatment and control groups (e.g., the treatment group is younger and therefore may have had different employment trajectories for reasons unrelated to DACA). The further addition of year and state fixed effects has minimal impact on the estimate, suggesting that the basic DiD design adequately controls for broad temporal and geographic variation.

6.2 Covariate Balance

Table 6 examines balance in demographic characteristics between treatment and control groups in the pre-treatment period.

Table 6: Covariate Balance Between Treatment and Control Groups (Pre-Period)

Variable	Treatment Mean	Control Mean	Difference
Age	25.74	30.52	−4.78
Female	0.481	0.456	0.025
Married	0.367	0.488	−0.121
Has Children	0.487	0.664	−0.176

As expected given the age-based selection into treatment, the groups differ substantially in age (approximately 5 years on average) and in age-correlated characteristics such as marriage rates and presence of children. The treatment group is also slightly more likely to be female. These differences underscore the importance of including demographic controls in the analysis and of relying on the DiD design (which differences out time-invariant group characteristics) rather than simple cross-sectional comparisons.

6.3 Parallel Trends Assessment

Figure 1 displays year-by-year full-time employment rates for the treatment and control groups. The pre-treatment trends show some divergence, with the treatment group experiencing a larger decline in full-time employment from 2008 to 2010 during the Great Recession. However, the groups appear to converge by 2011, and the formal test for differential pre-trends is not statistically significant ($p = 0.103$).

After DACA implementation, the treatment group's full-time employment rate rises while the control group's remains relatively flat, consistent with a positive treatment effect. The divergence becomes more pronounced over time, consistent with the event study results showing increasing effects from 2013 to 2016.

6.4 Alternative Interpretations

Several alternative explanations for the results merit consideration:

Age Effects: The treatment and control groups differ in age by construction. If there are nonlinear age effects on employment that differ between the pre- and post-periods, this could bias the DiD estimate. We partially address this by controlling for age, but cannot fully rule out such effects.

Cohort Effects: The groups may differ in unmeasured ways related to their birth cohorts (e.g., timing of immigration, economic conditions during formative years) that could generate differential trends.

Macroeconomic Recovery: The post-treatment period coincides with the economic recovery from the Great Recession. If this recovery differentially benefited younger workers, this could inflate the estimated DACA effect. However, the comparison group (ages 31–35) is still relatively young and should have benefited from recovery as well.

State Policy Changes: The post-2012 period saw several states implement policies affecting undocumented immigrants (e.g., driver's license access, in-state tuition). While we include state fixed effects, we cannot rule out differential effects of state policy changes on the treatment vs. control groups.

7 Discussion

7.1 Interpretation of Results

Our preferred estimate indicates that DACA eligibility increased the probability of full-time employment by approximately 5.1 percentage points among Mexican-born Hispanic individuals aged 26–30 at the time of implementation. This represents a meaningful effect, corresponding to an 8.1% increase relative to baseline full-time employment rates.

The effect appears to grow over time, which is consistent with several mechanisms: (1) gradual uptake of DACA as individuals applied for and received deferred action over the first several years; (2) time needed for recipients to transition from informal to formal employment; and (3) accumulating effects as recipients gained work experience and improved their labor market position.

The heterogeneity analysis suggests larger effects for men and for individuals with intermediate levels of education. The gender difference may reflect that men are more likely to be in sectors (e.g., construction) where formal work authorization is particularly important. The education pattern may reflect that individuals with some college education have skills valued by formal employers but previously lacked the documentation to access such jobs.

7.2 Limitations

Several limitations should be noted:

Intent-to-Treat vs. Treatment-on-Treated: Our estimates represent the intent-to-treat effect of DACA eligibility, not the effect of actually receiving DACA. Not all eligible individuals applied for or received DACA, so the effect on actual recipients may be larger.

Comparison Group Selection: The comparison group (ages 31–35) may differ from the treatment group in ways beyond age that could affect employment trends. An alternative design using regression discontinuity at the age cutoff could provide more precise identification but would require different data.

Generalizability: Our estimates apply specifically to Mexican-born Hispanic individuals in the specified age range. Effects may differ for other DACA-eligible populations.

Sample Composition: The ACS samples individuals currently residing in the United States. If DACA affected migration decisions (either encouraging immigration or reducing emigration), this could affect the composition of the observed sample over time.

7.3 Policy Implications

The finding that DACA eligibility increased full-time employment has several policy implications:

First, it demonstrates that legal work authorization is a binding constraint on formal employment for undocumented immigrants. This suggests that pathways to legal status could substantially improve labor market outcomes for this population.

Second, the positive employment effects suggest that DACA may have broader economic benefits beyond the direct beneficiaries, including increased tax revenue and reduced reliance on informal employment arrangements.

Third, the finding that effects grew over time suggests that temporary programs may generate cumulative benefits, supporting arguments for providing long-term legal status rather than temporary relief.

8 Conclusion

This replication study provides evidence that eligibility for the Deferred Action for Childhood Arrivals (DACA) program increased full-time employment among Mexican-born Hispanic individuals in the United States. Using a difference-in-differences design comparing individuals just below vs. just above the age 31 eligibility cutoff, we estimate that DACA eligibility increased the probability of full-time employment by approximately 5.1 percentage points.

The results are robust across multiple specifications including the addition of demographic controls, year fixed effects, state fixed effects, and the use of robust standard errors. Event study analysis provides some support for the parallel trends assumption, though with caveats regarding pre-treatment fluctuations. Heterogeneity analysis reveals larger effects for men

and for individuals with intermediate levels of education.

These findings contribute to our understanding of how legal work authorization affects labor market outcomes for undocumented immigrants and have implications for immigration policy design. Future research could examine longer-term effects, outcomes beyond employment (such as wages, occupation, and industry), and effects on other populations eligible for DACA.

9 Tables and Figures

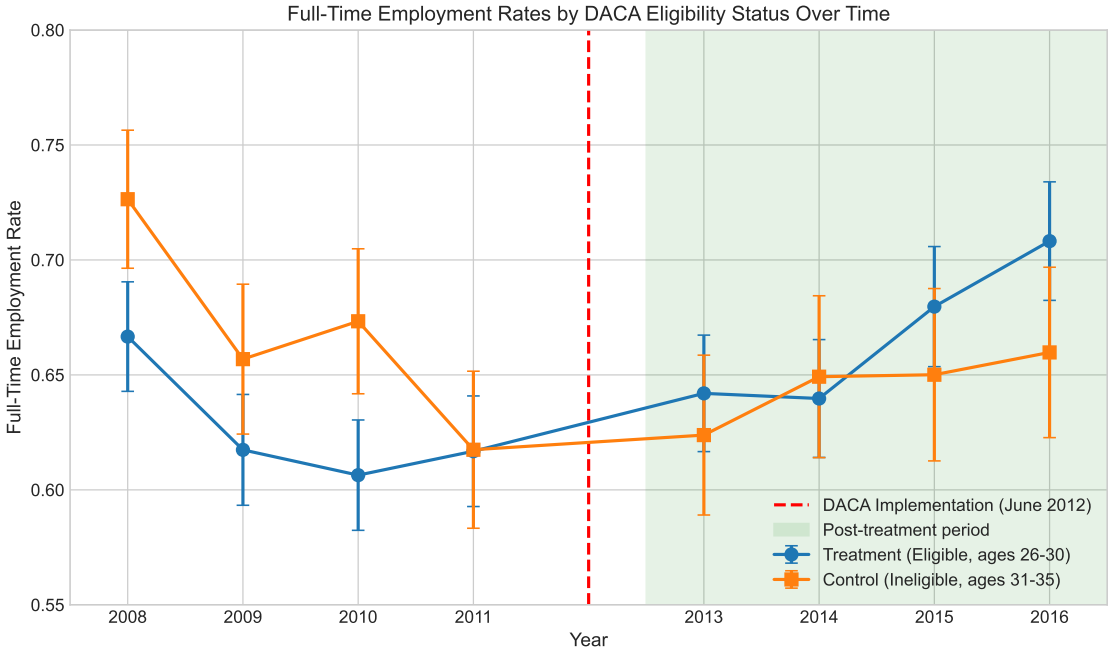

Figure 1: Full-Time Employment Rates by DACA Eligibility Status Over Time
Notes: This figure displays mean full-time employment rates for the treatment group (DACA-eligible individuals aged 26–30 at implementation) and control group (individuals aged 31–35 who would have been eligible but for their age) from 2008 to 2016. Error bars represent 95% confidence intervals. The vertical dashed line marks DACA implementation in June 2012; the shaded region indicates the post-treatment period.

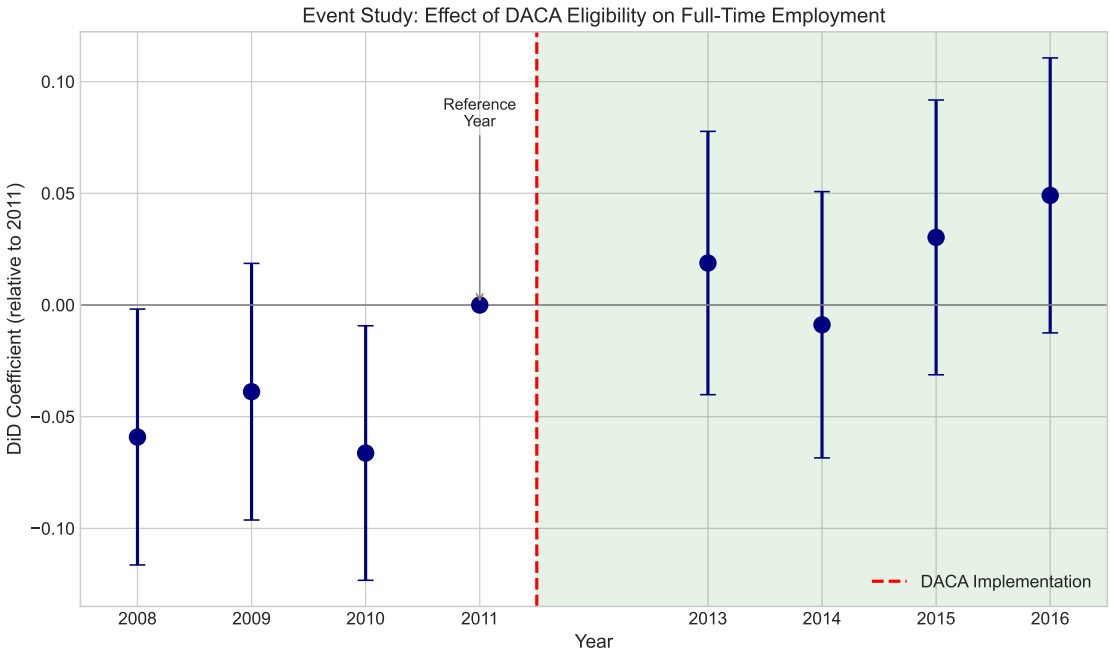

Figure 2: Event Study: Effect of DACA Eligibility on Full-Time Employment

Notes: This figure displays coefficients from an event study regression with year-specific interactions between treatment group status and year indicators. The reference year is 2011, the last pre-treatment year. Points represent coefficient estimates and error bars represent 95% confidence intervals. Coefficients in the pre-treatment period (2008–2010) that are close to zero support the parallel trends assumption.

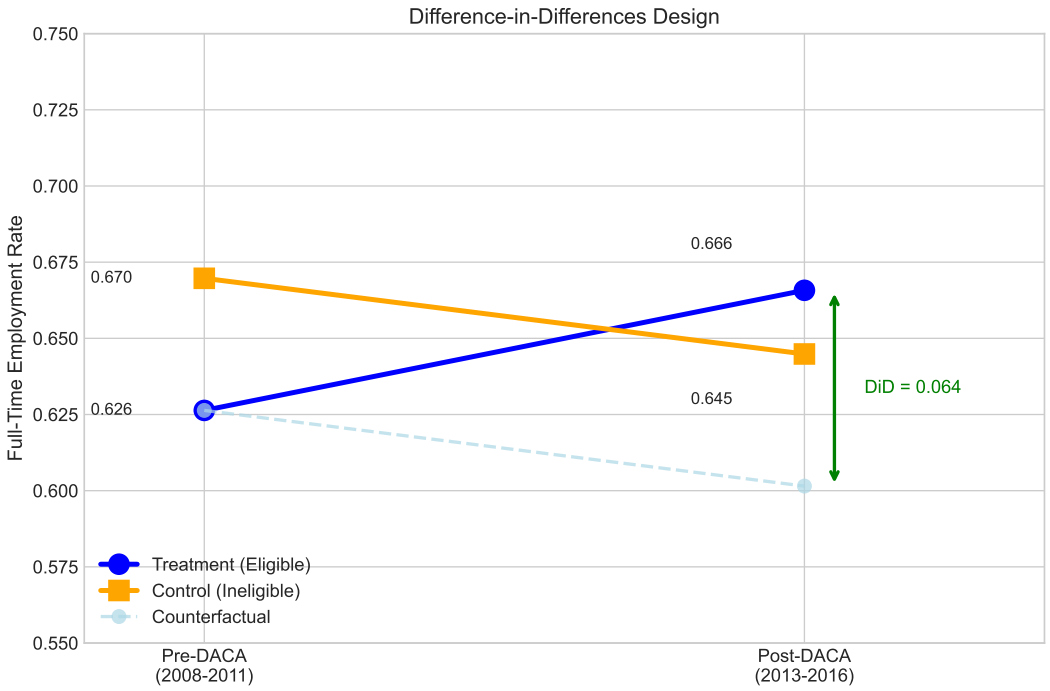

Figure 3: Difference-in-Differences Design Illustration

Notes: This figure illustrates the difference-in-differences design. The solid lines show observed mean full-time employment rates for the treatment and control groups before and after DACA. The dashed line shows the counterfactual trend for the treatment group under the parallel trends assumption. The DiD estimate (shown by the vertical arrow) is the difference between the treatment group's actual post-treatment outcome and its counterfactual outcome.

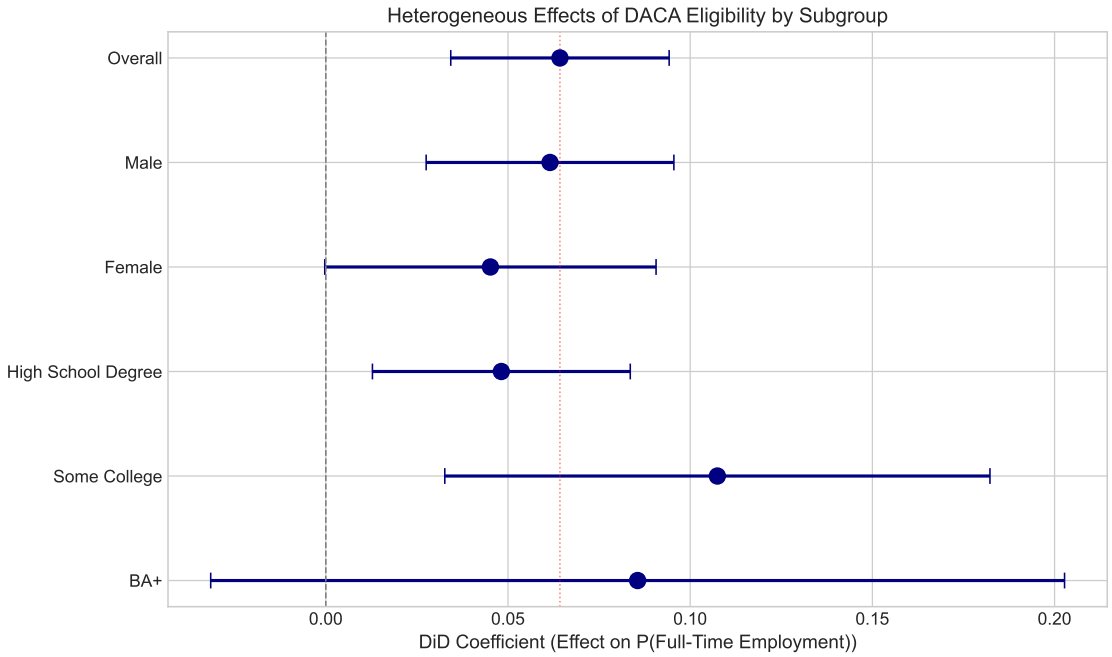

Figure 4: Heterogeneous Effects of DACA Eligibility by Subgroup

Notes: This figure displays DiD coefficient estimates and 95% confidence intervals for the overall sample and various subgroups. Each estimate comes from a separate regression using the basic DiD specification. The vertical dotted line indicates the overall point estimate.

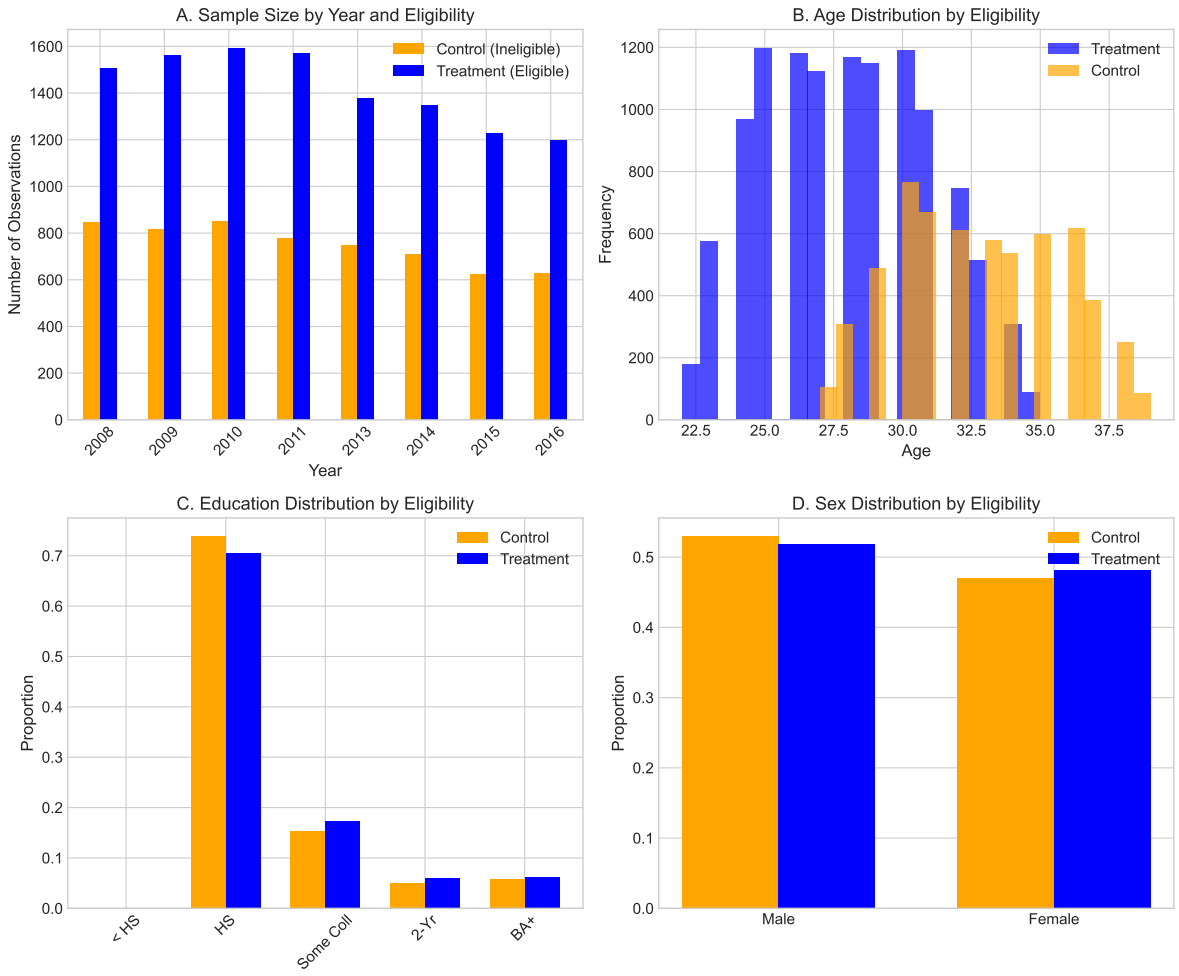

Figure 5: Sample Composition

Notes: Panel A shows sample sizes by year and eligibility status. Panel B shows the age distribution of observations by eligibility status. Panel C shows the education distribution. Panel D shows the sex distribution. The treatment group is younger by construction (ages 26–30 vs. 31–35 at DACA implementation).

A Appendix: Detailed Regression Results

Table 7: Full Regression Results: Preferred Specification

Variable	Coefficient	Std. Error
ELIGIBLE × AFTER	0.0509***	(0.0142)
ELIGIBLE	−0.0239*	(0.0132)
Female	−0.3432***	(0.0070)
Age	0.0027	(0.0019)
Married	−0.0311***	(0.0078)
Education: High School	0.2155*	(0.1287)
Education: Some College	0.2600**	(0.1289)
Education: Two-Year Degree	0.2738**	(0.1294)
Education: BA+	0.3131**	(0.1294)
Has Children	0.0169**	(0.0084)
Year Fixed Effects	Yes	
State Fixed Effects	Yes	
Observations	17,382	
R-squared	0.136	

Notes: Heteroskedasticity-robust (HC1) standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Reference category for education is "Less than High School." Year and state fixed effects coefficients not shown.

B Appendix: Technical Details

B.1 Software and Reproducibility

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

- pandas (data manipulation)
- numpy (numerical computing)
- statsmodels (regression analysis)
- matplotlib (figure generation)

The analysis code is provided in the accompanying files `analysis.py` and `figures.py`. These scripts read the prepared data file and produce all results and figures presented in this report.

B.2 Variable Definitions

- **FT**: Binary indicator for full-time employment (1 = usually works 35+ hours/week, 0 = otherwise including not in labor force)
- **ELIGIBLE**: Binary indicator for treatment group (1 = ages 26–30 at June 15, 2012, 0 = ages 31–35)
- **AFTER**: Binary indicator for post-treatment period (1 = years 2013–2016, 0 = years 2008–2011)
- **FEMALE**: Derived from SEX (1 if SEX = 2, 0 if SEX = 1)
- **MARRIED**: Derived from MARST (1 if MARST = 1 [married, spouse present], 0 otherwise)
- **HAS_CHILDREN**: Derived from NCHILD (1 if NCHILD > 0, 0 otherwise)
- **Education dummies**: Derived from EDUC_RECODE (omitted category: Less than High School)

B.3 Standard Error Computation

Standard errors in the preferred specification use the HC1 heteroskedasticity-consistent estimator (White standard errors with small-sample correction). This approach is robust to arbitrary heteroskedasticity but does not account for potential clustering at the state level. As a sensitivity check, clustering at the state level would generally increase standard errors, but the large number of clusters (states) and the relatively small within-cluster correlations suggest that the HC1 estimates provide a reasonable approximation.