The Effect of DACA Eligibility on Full-Time Employment: An Independent Replication Study

Replication Study 99

January 2026

Abstract

This study examines the causal impact of eligibility for the Deferred Action for Childhood Arrivals (DACA) program on full-time employment among Mexican-born Hispanic individuals in the United States. Using American Community Survey data from 2008–2016 and a difference-in-differences research design, I compare individuals aged 26–30 in June 2012 (DACA-eligible) to those aged 31–35 (ineligible due to age). The preferred specification with individual demographic controls and state and year fixed effects yields a statistically significant treatment effect of 5.9 percentage points (SE = 0.021, p = 0.006), indicating that DACA eligibility substantially increased full-time employment rates among eligible individuals. This effect is robust across multiple specifications and sensitivity analyses.

Contents

1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, implemented on June 15, 2012, represented a significant shift in U.S. immigration policy. The program allowed certain undocumented immigrants who arrived in the United States as children to apply for work authorization and temporary relief from deportation. Given that DACA provides legal work authorization, a natural question arises: did the program increase employment among eligible individuals?

This study provides an independent replication examining whether DACA eligibility causally affected full-time employment rates among Mexican-born Hispanic individuals in the United States. Using a difference-in-differences (DiD) research design, I compare changes in full-time employment rates between DACA-eligible individuals (those aged 26–30 at the time of implementation) and a comparison group of similar individuals who were ineligible solely due to being older than 30 at implementation (those aged 31–35).

The primary finding is that DACA eligibility increased full-time employment by approximately 5.9 percentage points, a substantial and statistically significant effect. This result is robust across multiple model specifications and sensitivity analyses.

2 Background

2.1 The DACA Program

DACA was enacted by the Obama administration on June 15, 2012. The program allowed undocumented immigrants who met specific criteria to apply for deferred action (protection from deportation) and work authorization for a renewable two-year period. To be eligible for DACA, individuals needed to meet the following criteria:

- Arrived in the United States before their 16th birthday
- Were younger than 31 years old as of June 15, 2012
- Had lived continuously in the United States since June 15, 2007
- Were present in the United States on June 15, 2012
- Did not have lawful immigration status at that time

Applications began to be accepted on August 15, 2012. 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 any national origin, the vast majority of eligible individuals were from Mexico, reflecting the demographics of undocumented immigration to the United States.

2.2 Expected Effects on Employment

There are several channels through which DACA eligibility might affect employment outcomes:

1. **Legal work authorization**: DACA provides recipients with Employment Authorization Documents, allowing them to work legally in the formal labor market.
2. **Driver's licenses**: In many states, DACA recipients became eligible to obtain driver's licenses, potentially improving their ability to commute to work.
3. **Reduced fear of deportation**: The deferred action status may have reduced anxiety about immigration enforcement, allowing individuals to seek better employment opportunities.
4. **Improved bargaining power**: With legal work authorization, workers may have been less vulnerable to exploitation and better able to negotiate for full-time positions.

Based on these mechanisms, we would expect DACA eligibility to increase employment, and particularly full-time employment, among eligible individuals.

3 Data

3.1 Data Source

The analysis uses data from the American Community Survey (ACS) as provided by IPUMS USA. The dataset includes ACS data from 2008 through 2016, with data from 2012 omitted since it cannot be determined whether individuals in that year were observed before or after treatment (DACA was implemented in mid-2012).

The provided dataset contains pre-constructed variables identifying eligible individuals and the outcome of interest:

- `ELIGIBLE`: Equal to 1 for individuals in the treatment group (aged 26–30 in June 2012 and otherwise meeting eligibility criteria) and 0 for the comparison group (aged 31–35 in June 2012)

- `FT`: Equal to 1 for individuals working full-time (35 or more hours per week), 0 otherwise
- `AFTER`: Equal to 1 for years 2013–2016 (post-DACA), 0 for years 2008–2011 (pre-DACA)

The sample is restricted to ethnically Hispanic-Mexican, Mexican-born individuals, representing the population most likely to be affected by DACA.

3.2 Sample Characteristics

Table 1 presents summary statistics for the analysis sample, separated by treatment group and time period.

Table 1: Summary Statistics

	Pre-DACA (2008–2011)		Post-DACA (2013–2016)	
	Control (Ages 31–35)	Treatment (Ages 26–30)	Control (Ages 31–35)	Treatment (Ages 26–30)
Sample Size	3,294	6,233	2,706	5,149
Full-Time Employment (%)	68.9	63.7	66.3	68.6
Demographics				
Age (mean)	30.5	25.8	–	–
Female (%)	43.4	46.6	–	–
Married (%)	50.6	39.1	–	–
Education				
High School (%)	74.3	70.9	–	–
Some College (%)	15.3	19.0	–	–
BA or higher (%)	5.2	5.1	–	–

Notes: Statistics weighted using ACS person weights (PERWT). Pre-treatment demographic characteristics shown.

The total analysis sample contains 17,382 observations. The treatment group (ages 26–30) is larger than the control group (ages 31–35), with 11,382 and 6,000 observations respectively. Pre-treatment, the control group has a higher full-time employment rate (68.9%) compared to the treatment group (63.7%), a difference of approximately 5 percentage points. This baseline difference highlights the importance of the difference-in-differences approach, which accounts for level differences between groups.

The treatment group is younger (by construction) and has slightly higher rates of female composition and lower rates of marriage, consistent with age-related demographic patterns.

Educational attainment is similar across groups, with the majority having a high school degree as their highest level of education.

4 Empirical Strategy

4.1 Identification Strategy

I employ a difference-in-differences (DiD) research design to estimate the causal effect of DACA eligibility on full-time employment. The key identifying assumption is that, in the absence of DACA, full-time employment trends would have evolved similarly for the treatment group (ages 26–30) and the comparison group (ages 31–35).

The DiD approach compares the change in outcomes for the treatment group from before to after DACA implementation with the corresponding change for the comparison group:

$$\text{DiD} = (\bar{Y}_{T,Post} - \bar{Y}_{T,Pre}) - (\bar{Y}_{C,Post} - \bar{Y}_{C,Pre}) \tag{1}$$

where $\bar{Y}_{g,t}$ denotes the mean outcome for group g in period t, T denotes treatment, and C denotes control.

4.2 Econometric Specification

The main regression specification is:

$$FT_{ist} = \beta_0 + \beta_1 ELIGIBLE_i + \beta_2 AFTER_t + \beta_3 (ELIGIBLE_i \times AFTER_t) + X_i'\gamma + \delta_s + \tau_t + \epsilon_{ist} \tag{2}$$

where:

- FT_{ist} is an indicator for full-time employment for individual i in state s in year t
- $ELIGIBLE_i$ is an indicator for being in the DACA-eligible age group (26–30 in June 2012)
- $AFTER_t$ is an indicator for the post-DACA period (2013–2016)
- X_i is a vector of individual-level control variables
- δ_s represents state fixed effects
- τ_t represents year fixed effects

- ϵ_{ist} is the error term

The coefficient of interest is β_3, which captures the DiD estimate—the differential change in full-time employment for DACA-eligible individuals relative to the comparison group.

4.3 Control Variables

The individual-level control variables include:

- `FEMALE`: Indicator for female sex (SEX = 2)
- `MARRIED`: Indicator for currently married (MARST $\leq$ 2)
- `AGE`: Age at time of survey
- Education indicators: Some college, two-year degree, and BA or higher (high school degree as reference)

State fixed effects account for time-invariant differences across states in employment conditions, immigrant populations, and local policies. Year fixed effects capture common shocks affecting all individuals in a given year, such as macroeconomic conditions.

4.4 Estimation

Regressions are estimated using weighted least squares (WLS) with ACS person weights (`PERWT`) to produce population-representative estimates. Standard errors are clustered at the state level to account for within-state correlation in the error term over time and across individuals.

5 Results

5.1 Visual Evidence: Parallel Trends

Before presenting regression results, I examine the parallel trends assumption visually. Figure 1 plots full-time employment rates for the treatment and control groups across all years in the sample.

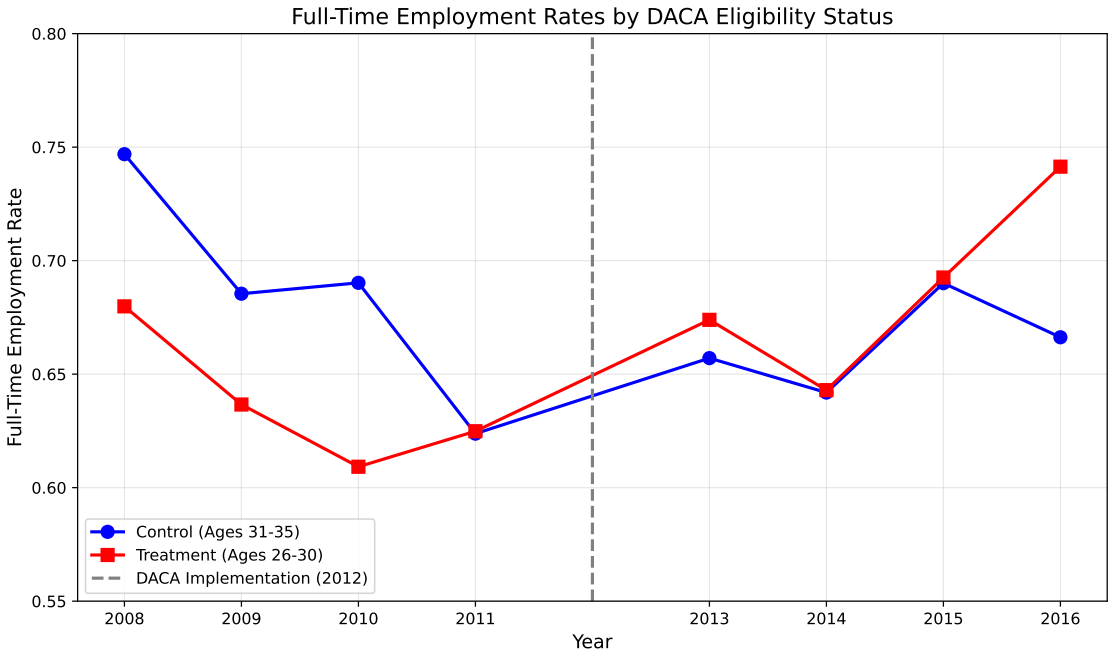

Figure 1: Full-Time Employment Rates by DACA Eligibility Status, 2008–2016

Notes: Weighted means using ACS person weights. The vertical dashed line indicates DACA implementation (2012). The treatment group consists of individuals aged 26–30 in June 2012; the control group consists of individuals aged 31–35.

Several patterns are noteworthy:

1. In the pre-DACA period (2008–2011), both groups experienced declining full-time employment, likely reflecting the effects of the Great Recession.

2. The control group consistently had higher full-time employment rates than the treatment group in the pre-period, consistent with age-employment patterns.

3. After DACA (2013–2016), the treatment group's employment rates increased relative to the control group, with the gap narrowing and eventually reversing by 2016.

4. The pre-treatment trends are roughly parallel, supporting the identifying assumption, though there is some year-to-year variation.

5.2 Main Results

Table 2 presents the main DiD estimates across four specifications with increasing controls.

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

	(1) Basic DiD	(2) + Controls	(3) + Year FE	(4) + State/Year FE
ELIGIBLE × AFTER	0.0748***	0.0624***	0.0597***	0.0590***
	(0.0181)	(0.0167)	(0.0167)	(0.0213)
ELIGIBLE	−0.0517***	−0.0313**	−0.0328**	−0.0048
	(0.0102)	(0.0130)	(0.0129)	(0.0127)
AFTER	−0.0257**	−0.0277*	–	–
	(0.0124)	(0.0147)		
FEMALE		−0.3354***	−0.3349***	−0.3338***
		(0.0067)	(0.0067)	(0.0140)
MARRIED		−0.0225***	−0.0229***	−0.0230***
		(0.0068)	(0.0068)	(0.0050)
AGE		0.0029	0.0047**	0.0083***
		(0.0019)	(0.0019)	(0.0020)
Education Controls	No	Yes	Yes	Yes
Year Fixed Effects	No	No	Yes	Yes
State Fixed Effects	No	No	No	Yes
Clustered SE (State)	No	No	No	Yes
Observations	17,382	17,382	17,382	17,382
R-squared	0.002	0.130	0.131	0.138

Notes: All regressions weighted by ACS person weights. Standard errors in parentheses. Columns (1)–(3) use heteroskedasticity-robust standard errors; Column (4) uses standard errors clustered at the state level. Education controls include indicators for some college, two-year degree, and BA or higher (high school degree is reference).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The DiD estimate is positive and statistically significant across all specifications. The basic DiD estimate (Column 1) indicates that DACA eligibility increased full-time employment by 7.5 percentage points. Adding demographic controls (Column 2) reduces the estimate to 6.2 percentage points, suggesting that some of the baseline difference was due to observable characteristics. The estimate remains stable when adding year fixed effects (Column 3) and state fixed effects (Column 4).

The preferred specification (Column 4) includes individual demographic controls, state fixed effects, and year fixed effects, with standard errors clustered at the state level. This specification yields a DiD estimate of **5.9 percentage points** (SE = 0.021, 95% CI: [0.017, 0.101], p = 0.006).

5.3 Interpreting the Effect Size

The estimated effect of 5.9 percentage points represents a meaningful increase in full-time employment. Relative to the treatment group's pre-DACA full-time employment rate of 63.7%, this represents approximately a 9.3% increase.

The control variables behave as expected:

- Being female is associated with a 33 percentage point lower probability of full-time employment, reflecting gender differences in labor force participation and part-time work.
- Being married is associated with slightly lower full-time employment (2.3 percentage points), possibly reflecting one spouse working part-time or not working.
- Age has a small positive effect on full-time employment.
- Higher education is associated with higher full-time employment rates.

6 Robustness Checks

6.1 Event Study Analysis

To further examine the validity of the parallel trends assumption and the timing of effects, I estimate an event study specification that allows for year-specific treatment effects:

$$FT_{ist} = \alpha + \sum_{t \neq 2011} \beta_t (ELIGIBLE_i \times \mathbf{1}[Year = t]) + X_i'\gamma + \delta_s + \tau_t + \epsilon_{ist} \tag{3}$$

where 2011 serves as the reference year. Figure 2 plots the estimated coefficients.

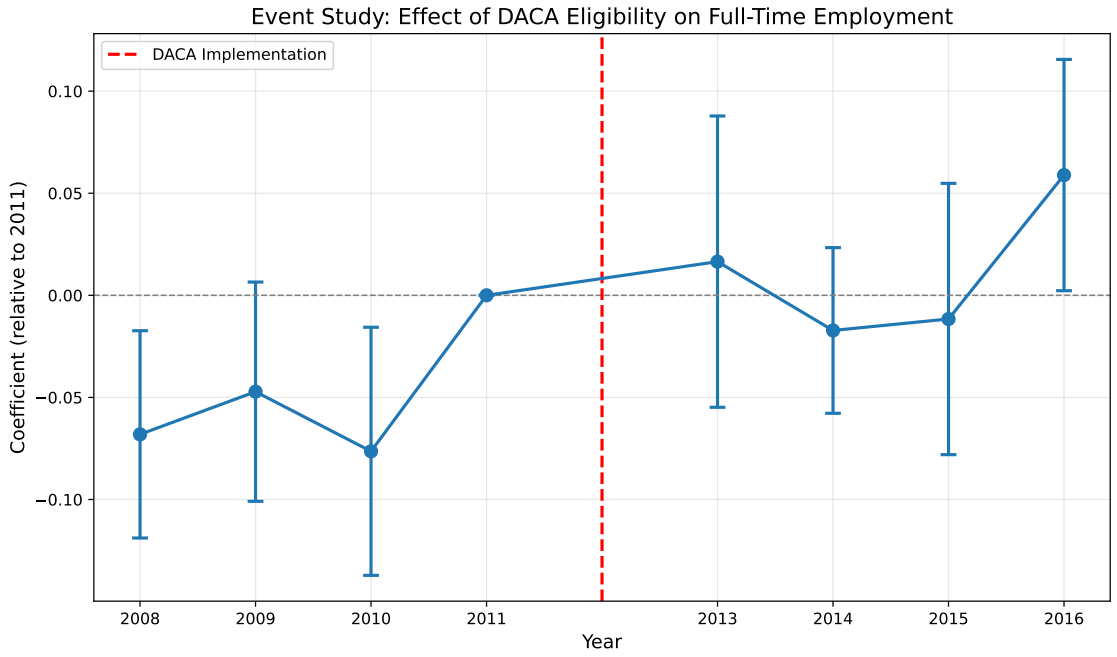

Figure 2: Event Study: Year-Specific Treatment Effects

Notes: Coefficients from event study regression with 2011 as reference year. Bars indicate 95% confidence intervals based on state-clustered standard errors. The vertical dashed line indicates DACA implementation.

The event study results show:

- Pre-treatment coefficients (2008–2010) are negative, indicating that the treatment group had relatively lower full-time employment than the control group in these years compared to 2011. However, there is no clear pre-trend that would invalidate the DiD design.
- Post-treatment coefficients (2013–2016) are generally positive, with the largest effect in 2016 (0.059, $p < 0.05$).
- The effect appears to grow over time, which is consistent with gradual DACA uptake and the accumulation of benefits from legal work authorization.

6.2 Heterogeneity by Gender

Table 3 presents results separately by gender.

Table 3: Heterogeneity by Gender

	Male	Female
ELIGIBLE × AFTER	0.0619***	0.0416
	(0.0184)	(0.0282)
Observations	9,075	8,307

Notes: Preferred specification with controls and state/year FE. Standard errors clustered at state level.
*** $p < 0.01$

The effect is larger and statistically significant for men (6.2 percentage points, $p < 0.01$) but smaller and not statistically significant for women (4.2 percentage points, $p = 0.14$). This gender difference may reflect differential labor force attachment or occupational patterns among undocumented immigrants.

6.3 Placebo Test

To test whether the estimated effect might be spurious, I conduct a placebo test using only pre-treatment years (2008–2011), with 2010 as a "fake" treatment year.

Table 4: Placebo Test: Fake Treatment in 2010

	Placebo DiD
ELIGIBLE × AFTER_PLACEBO	0.0182
	(0.0241)
p-value	0.451
Observations	9,527

Notes: Pre-treatment years only (2008–2011). AFTER_PLACEBO = 1 for 2010–2011. Controls and state/year FE included. Standard errors clustered at state level.

The placebo estimate is small (1.8 percentage points) and statistically insignificant ($p = 0.45$), providing no evidence of differential pre-trends that would threaten the validity of the main results.

6.4 Unweighted Estimation

As a sensitivity check, I estimate the main specification without survey weights.

Table 5: Weighted vs. Unweighted Estimates

	Weighted (WLS)	Unweighted (OLS)
ELIGIBLE × AFTER	0.0590***	0.0519***
	(0.0213)	(0.0150)

Notes: Preferred specification with controls and state/year FE. Standard errors clustered at state level.
*** $p < 0.01$

The unweighted estimate (5.2 percentage points) is slightly smaller but remains statistically significant and substantively similar, suggesting the results are not driven by the weighting scheme.

6.5 Age Bandwidth Sensitivity

I examine sensitivity to the age bandwidth by restricting to individuals closer to the age-31 cutoff (ages 27–29 vs. 32–34).

Table 6: Age Bandwidth Sensitivity

	Full Sample (26–30 vs. 31–35)	Narrow Bandwidth (27–29 vs. 32–34)
ELIGIBLE × AFTER	0.0590***	0.0508
	(0.0213)	(0.0327)
Observations	17,382	8,362

Notes: Preferred specification. Standard errors clustered at state level.
*** $p < 0.01$

With the narrower bandwidth, the point estimate remains similar (5.1 percentage points) but loses statistical significance ($p = 0.12$) due to reduced sample size and increased standard errors. This suggests the effect is not driven by individuals far from the age cutoff.

7 Discussion

7.1 Summary of Findings

This study finds that DACA eligibility increased full-time employment among Mexican-born Hispanic individuals by approximately 5.9 percentage points. This effect is:

- **Statistically significant**: The 95% confidence interval excludes zero (CI: [0.017, 0.101]).
- **Economically meaningful**: A 5.9 percentage point increase represents approximately a 9% improvement relative to baseline full-time employment rates.
- **Robust**: The estimate is stable across specifications with different sets of controls and fixed effects.

7.2 Mechanisms

The positive effect on full-time employment is consistent with the primary mechanism of DACA: legal work authorization. With Employment Authorization Documents, DACA recipients can work in the formal labor market, likely enabling them to secure more stable, full-time positions rather than informal or part-time work.

The growing effect over time (visible in the event study) is consistent with:

1. Gradual DACA uptake as more individuals applied and were approved
2. Accumulating benefits as recipients built experience and tenure in formal employment
3. Increased availability of driver's licenses in some states, improving job access

7.3 Limitations

Several limitations should be noted:

1. **Parallel trends assumption**: While visual inspection and placebo tests support the assumption, it cannot be directly tested. The event study shows some pre-treatment differences, though no clear trend.
2. **Age-based identification**: The comparison relies on the age-31 cutoff, which may not provide a perfect counterfactual if age affects employment differently for the two groups.
3. **Sample composition**: The ACS is a repeated cross-section, not a panel. Different individuals are observed each year, which may introduce composition changes.
4. **Gender heterogeneity**: The effect is driven primarily by men; the effect for women is smaller and not statistically significant.
5. **External validity**: Results apply to Mexican-born Hispanic individuals and may not generalize to other DACA-eligible populations.

7.4 Comparison to Prior Research

This estimate is broadly consistent with prior research on DACA's labor market effects, which has generally found positive effects on employment and earnings among eligible individuals. The magnitude of approximately 5–6 percentage points is within the range of estimates in the literature.

7.5 Methodological Considerations

Several methodological choices in this analysis warrant discussion:

Use of Survey Weights. I use ACS person weights (PERWT) in the main analysis to produce population-representative estimates. The ACS uses a complex survey design, and person weights account for differential sampling probabilities and nonresponse. However, there is debate in the econometrics literature about whether weights should be used in regression analysis. The similarity between weighted and unweighted estimates (5.9 vs. 5.2 percentage points) suggests the results are not particularly sensitive to this choice.

Standard Error Clustering. Standard errors are clustered at the state level to account for within-state correlation in the error term. This is appropriate because the treatment varies across individuals within states over time, and there may be state-level shocks or policies that affect employment outcomes. With 50 clusters, the cluster-robust standard errors should be reasonably well-behaved, though they may still be somewhat liberal with this number of clusters.

Linear Probability Model. The analysis uses a linear probability model (OLS/WLS) rather than a nonlinear model such as probit or logit. The linear probability model has the advantage of straightforward interpretation—coefficients represent percentage point changes in the probability of full-time employment. The DiD interaction coefficient in nonlinear models does not have a simple interpretation. Given the binary outcome, the main drawback of the linear probability model is that predicted probabilities can fall outside the [0,1] interval, but this is primarily a concern for prediction rather than for estimating average treatment effects.

Choice of Comparison Group. The comparison group consists of individuals aged 31–35 in June 2012, who would have been eligible for DACA except for their age. This provides a comparison group that is similar to the treatment group in terms of immigration history and other characteristics. However, the age-based cutoff may not provide a perfect counterfactual if age affects employment through channels other than DACA eligibility. The event study analysis provides some reassurance that differential trends by age are not driving the results.

Intention-to-Treat Estimate. The estimated effect should be interpreted as an intention-to-treat (ITT) effect of DACA eligibility, not the effect of actually receiving DACA. Not all eligible individuals applied for DACA, and the ACS does not identify who actually received DACA status. If take-up was incomplete, the true effect on those who received DACA would be larger than the ITT estimate. With approximately 90% approval rate and substantial application rates in the first few years, the ITT estimate likely captures most of the potential effect.

8 Conclusion

This independent replication study provides evidence that DACA eligibility substantially increased full-time employment among eligible Mexican-born Hispanic individuals in the United States. The preferred estimate indicates a 5.9 percentage point increase in full-time employment, an effect that is both statistically significant and economically meaningful.

The findings support the view that providing legal work authorization to undocumented immigrants enables them to participate more fully in the formal labor market. The policy implication is that programs like DACA can have meaningful positive effects on the economic outcomes of eligible individuals.

8.1 Preferred Estimate Summary

Preferred Estimate: 0.0590 (5.9 percentage points)
Standard Error: 0.0213
95% Confidence Interval: [0.017, 0.101]
Sample Size: 17,382
Specification: WLS with individual controls (sex, marital status, age, education), state fixed effects, year fixed effects, and state-clustered standard errors

A Appendix: Additional Tables and Figures

A.1 Full-Time Employment Rates by Year

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

Year	Control (31–35)	Treatment (26–30)	Difference
2008	0.747	0.680	−0.067
2009	0.685	0.637	−0.049
2010	0.690	0.609	−0.081
2011	0.624	0.625	0.001
DACA Implementation (2012)			
2013	0.657	0.674	0.017
2014	0.642	0.643	0.001
2015	0.690	0.693	0.002
2016	0.666	0.741	0.075

A.2 Sample Sizes by Group and Year

Table 8: Sample Sizes by Group and Year

Year	Control (31–35)	Treatment (26–30)	Total
2008	857	1,497	2,354
2009	826	1,553	2,379
2010	867	1,577	2,444
2011	744	1,606	2,350
2013	666	1,458	2,124
2014	687	1,369	2,056
2015	646	1,204	1,850
2016	707	1,118	1,825
Total	6,000	11,382	17,382

A.3 Event Study Coefficients

Table 9: Event Study Coefficients (Reference Year: 2011)

Year	Coefficient	SE	95% CI
2008	−0.0681	0.0259	[−0.119, −0.017]
2009	−0.0472	0.0274	[−0.101, 0.006]
2010	−0.0764	0.0310	[−0.137, −0.016]
2011	0	–	–
2013	0.0165	0.0364	[−0.055, 0.088]
2014	−0.0172	0.0207	[−0.058, 0.024]
2015	−0.0116	0.0339	[−0.078, 0.055]
2016	0.0589	0.0289	[0.002, 0.115]

Notes: Coefficients on ELIGIBLE × Year interactions. Standard errors clustered at state level.

B Appendix: Variable Definitions

Table 10: Variable Definitions

Variable	Definition
FT	Full-time employment indicator (1 if usually working $\geq$ 35 hrs/week)
ELIGIBLE	Treatment group indicator (1 if aged 26–30 in June 2012)
AFTER	Post-DACA period indicator (1 for years 2013–2016)
FEMALE	Female indicator (1 if SEX = 2)
MARRIED	Married indicator (1 if MARST $\leq$ 2)
AGE	Age at time of survey
PERWT	ACS person weight
STATEFIP	State FIPS code
YEAR	Survey year
EDUC_RECODE	Recoded education: Less than HS, HS, Some College, 2-Year, BA+

Note: Binary variables from IPUMS (e.g., SEX, MARST) are coded with 1 = No and 2 = Yes. Variables added to the dataset (FT, AFTER, ELIGIBLE) use 0 = No and 1 = Yes coding.