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

Replication Study Report

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Abstract

This study examines 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 living in the United States. Using data from the American Community Survey (2008–2016, excluding 2012) and a difference-in-differences research design, I compare individuals aged 26–30 at the time of DACA implementation (treatment group) to those aged 31–35 (comparison group). The preferred specification, which includes year and state fixed effects along with demographic and education controls, yields an estimated treatment effect of 6.14 percentage points (95% CI: 1.92–10.36, $p = 0.004$). This suggests that DACA eligibility increased the probability of full-time employment by approximately 6 percentage points. However, event study analysis reveals some evidence of differential pre-trends between treatment and comparison groups, suggesting caution in interpreting these results as strictly causal.

Keywords: DACA, immigration policy, employment, difference-in-differences

Contents

1 Introduction

The Deferred Action for Childhood Arrivals (DACA) program, implemented on June 15, 2012, represents one of the most significant immigration policy changes in recent United States history. The program provided a two-year renewable deferral from deportation and work authorization for eligible undocumented immigrants who arrived in the U.S. as children. Given that the program explicitly provides legal work authorization, understanding its effects on labor market outcomes is of substantial policy interest.

This study examines whether DACA eligibility affected full-time employment rates among the eligible population. The research question is straightforward: among ethnically Hispanic-Mexican, Mexican-born individuals living in the United States, what was the causal impact of eligibility for DACA on the probability of working full-time (defined as 35 or more hours per week)?

I employ a difference-in-differences (DiD) research design that compares individuals who were just eligible for the program (ages 26–30 at the time of implementation) to those who would have been eligible but for their age (ages 31–35). This age-based discontinuity in eligibility provides a natural comparison group, as the 31–35 age group presumably would have similar characteristics and labor market trajectories absent the policy intervention.

The main finding is that DACA eligibility is associated with a statistically significant increase in full-time employment of approximately 6.1 percentage points. This effect is robust across various model specifications, including controls for demographic characteristics, education, and state and year fixed effects. However, event study analysis reveals some evidence of differential pre-trends, suggesting that the parallel trends assumption underlying the DiD design may not hold perfectly.

The remainder of this report is organized as follows. Section 2 provides background on the DACA program. Section 3 describes the data and sample. Section 4 outlines the empirical methodology. Section 5 presents the main results. Section 6 discusses robustness checks and limitations. Section 7 concludes.

2 Background on DACA

2.1 Program Overview

The Deferred Action for Childhood Arrivals program was announced by the Obama administration on June 15, 2012, and began accepting applications on August 15, 2012. The program was designed to provide temporary relief from deportation and work authorization for undocumented immigrants who:

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 lived continuously in the U.S. since June 15, 2007
4. Were present in the U.S. on June 15, 2012
5. Did not have lawful immigration status (citizenship or legal residency) at that time

The program provided recipients with a two-year renewable work authorization and relief from deportation. Recipients could also apply for driver's licenses and other forms of identification in many states. In the first four years of the program, nearly 900,000 initial applications were received, with approximately 90% approved.

2.2 Expected Effects on Employment

There are several mechanisms through which DACA could affect full-time employment:

Direct effect through work authorization: Prior to DACA, undocumented immigrants often worked informally or with fraudulent documents. Legal work authorization allows recipients to work formally, potentially increasing access to full-time employment opportunities.

Improved job matching: With legal status, DACA recipients can more freely search for employment that matches their skills, potentially leading to better job matches and more stable full-time positions.

Reduced employer discrimination: Some employers may be reluctant to hire undocumented workers. Work authorization removes this barrier.

Access to complementary benefits: In some states, DACA recipients gained access to driver's licenses, which can facilitate employment, particularly in areas with limited public transportation.

Given the demographics of undocumented immigration to the United States, the majority of DACA-eligible individuals were from Mexico, making this population particularly relevant for studying the program's employment effects.

3 Data

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 approximately 3.5 million households per year.

The provided dataset contains ACS data from 2008 through 2016, with 2012 omitted because it cannot be determined whether observations from that year occurred before or after DACA implementation. This yields eight years of data: four pre-treatment years (2008–2011) and four post-treatment years (2013–2016).

3.2 Sample Construction

The analysis sample was pre-constructed to include ethnically Hispanic-Mexican, Mexican-born individuals who meet the basic eligibility criteria for DACA (or would have met them but for their age). The sample is restricted to two age groups based on age as of June 15, 2012:

- **Treatment group (ELIGIBLE = 1):** Individuals aged 26–30 at the time of DACA implementation
- **Comparison group (ELIGIBLE = 0):** Individuals aged 31–35 at the time of DACA implementation

Individuals who are neither in the treatment nor comparison group have been excluded from the data. The total sample size is 17,382 observations.

3.3 Key Variables

Outcome variable: `FT` is 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 generally coded as 0. Following the instructions, all individuals, including those not in the labor force, are retained in the analysis.

Treatment indicators:

- `ELIGIBLE`: Binary indicator for treatment group membership (1 = ages 26–30, 0 = ages 31–35)
- `AFTER`: Binary indicator for post-treatment period (1 = 2013–2016, 0 = 2008–2011)

Control variables:

- `SEX`: 1 = Male, 2 = Female (IPUMS coding)
- `MARST`: Marital status

- `AGE`: Age at time of survey
- `NCHILD`: Number of own children in household
- `EDUC_RECODE`: Education level (Less than HS, HS Degree, Some College, Two-Year Degree, BA+)
- `STATEFIP`: State FIPS code
- `YEAR`: Survey year

Survey weights: `PERWT` contains person-level survey weights that account for the complex sampling design of the ACS.

3.4 Descriptive Statistics

Table 1 presents summary statistics for the analysis sample.

Table 1: Sample Distribution by Treatment Status and Time Period

	Pre-Period (2008–2011)		Post-Period (2013–2016)	
	N	%	N	%
Treatment (Ages 26–30)	6,233	65.4%	5,149	65.6%
Comparison (Ages 31–35)	3,294	34.6%	2,706	34.4%
Total	9,527	100%	7,855	100%

Note: The treatment group consists of individuals aged 26–30 as of June 15, 2012 (ELIGIBLE = 1). The comparison group consists of individuals aged 31–35 as of June 15, 2012 (ELIGIBLE = 0).

Table 2: Year Distribution of Sample

Year	N	%
2008	2,354	13.5%
2009	2,379	13.7%
2010	2,444	14.1%
2011	2,350	13.5%
2013	2,124	12.2%
2014	2,056	11.8%
2015	1,850	10.6%
2016	1,825	10.5%
Total	17,382	100%

Table 3 shows full-time employment rates by treatment status and time period.

Table 3: Full-Time Employment Rates by Group and Period

	Unweighted		Weighted	
Group	Pre	Post	Pre	Post
Treatment (26–30)	0.626	0.666	0.637	0.686
Comparison (31–35)	0.670	0.645	0.689	0.663
Difference	−0.043	0.021	−0.052	0.023

Note: Values represent the proportion of individuals in full-time employment. Weighted estimates use PERWT survey weights.

4 Methodology

4.1 Research Design

This study employs a difference-in-differences (DiD) research design. The DiD estimator compares the change in outcomes for the treatment group before and after the policy intervention to the change in outcomes for the comparison group over the same time period.

The key identifying assumption is that, in the absence of DACA, the treatment and comparison groups would have experienced parallel trends in full-time employment. Under this assumption, the comparison group provides a valid counterfactual for what would have happened to the treatment group absent the intervention.

4.2 Econometric Specification

The basic DiD model is:

$$FT_{ist} = \beta_0 + \beta_1 \cdot ELIGIBLE_i + \beta_2 \cdot AFTER_t + \beta_3 \cdot (ELIGIBLE_i \times AFTER_t) + \varepsilon_{ist} \quad (1)$$

where:

- FT_{ist} is a binary indicator for full-time employment for individual i in state s at time t
- $ELIGIBLE_i$ equals 1 for the treatment group (ages 26–30) and 0 for the comparison group (ages 31–35)

- $AFTER_t$ equals 1 for post-treatment years (2013–2016) and 0 for pre-treatment years (2008–2011)
- β_3 is the DiD estimator, representing the causal effect of DACA eligibility on full-time employment

The preferred specification augments this with year fixed effects, state fixed effects, and individual-level controls:

$$\begin{aligned} FT_{ist} =& \beta_0 + \beta_1 \cdot ELIGIBLE_i + \beta_3 \cdot (ELIGIBLE_i \times AFTER_t) \\ &+ \mathbf{X}_i'\boldsymbol{\gamma} + \delta_s + \tau_t + \varepsilon_{ist} \end{aligned} \tag{2}$$

where $\mathbf{X}_i$ is a vector of individual controls (female, married, age, number of children, education), δ_s are state fixed effects, and τ_t are year fixed effects. Note that the $AFTER$ indicator is absorbed by the year fixed effects.

4.3 Estimation

The model is estimated using weighted least squares (WLS) with person weights (PERWT) to produce population-representative estimates. This is a linear probability model (LPM), where coefficients can be interpreted directly as changes in the probability of full-time employment.

Standard errors are clustered at the state level to account for potential correlation in outcomes within states over time, as well as state-level variation in policy implementation and labor market conditions.

4.4 Parallel Trends Assessment

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

$$FT_{ist} = \alpha + \sum_{k \neq 2011} \gamma_k \cdot (ELIGIBLE_i \times \mathbb{1}[t = k]) + ELIGIBLE_i + \delta_s + \tau_t + \varepsilon_{ist} \tag{3}$$

where the coefficients γ_k represent the difference in full-time employment between treatment and comparison groups in year k relative to 2011 (the reference year immediately preceding DACA implementation). Under the parallel trends assumption, the pre-treatment coefficients ($\gamma_{2008}, \gamma_{2009}, \gamma_{2010}$) should be close to zero and statistically insignificant.

5 Results

5.1 Raw Difference-in-Differences

Table 4 presents the raw (unadjusted) DiD calculation using survey-weighted means.

Table 4: Raw Difference-in-Differences Calculation (Weighted)

Group	Pre-Period	Post-Period	Change
Treatment (Ages 26–30)	0.637	0.686	+0.049
Comparison (Ages 31–35)	0.689	0.663	−0.026
Difference-in-Differences			**+0.075**

Note: Values represent weighted full-time employment rates. The DiD estimate equals $(0.686 - 0.637) - (0.663 - 0.689) = 0.049 - (-0.026) = 0.075$.

The raw DiD estimate suggests that DACA eligibility increased full-time employment by approximately 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 comparison group experienced a 2.6 percentage point *decrease*.

5.2 Regression Results

Table 5 presents regression estimates of the DiD effect across various specifications.

Table 5: Difference-in-Differences Regression Results

Model	Coefficient	SE	95% CI	p-value
(1) Basic OLS	0.064	0.015	[0.034, 0.094]	<0.001
(2) Robust SE (HC3)	0.064	0.015	[0.034, 0.094]	<0.001
(3) Clustered SE	0.064	0.014	[0.037, 0.092]	<0.001
(4) Weighted + Clustered	0.075	0.020	[0.035, 0.114]	<0.001
(5) + Demographics	0.067	0.021	[0.026, 0.109]	0.002
(6) + Education	0.065	0.022	[0.022, 0.107]	0.003
(7) + State Labor Market	0.063	0.021	[0.021, 0.105]	0.003
(8) Year FE	0.072	0.020	[0.034, 0.110]	<0.001
(9) State FE	0.074	0.021	[0.033, 0.115]	<0.001
(10) Year + State FE	0.071	0.020	[0.032, 0.111]	<0.001
(11) Preferred	**0.061**	**0.022**	**[0.019, 0.104]**	**0.004**

Note: Dependent variable is FT (full-time employment). Coefficients shown are for the interaction term ELIGIBLE × AFTER. Models (4)–(11) use survey weights (PERWT) and state-clustered standard errors. Model (11) includes year fixed effects, state fixed effects, and controls for female, married, age, number of children, and education level.

Several patterns emerge from Table 5:

1. The DiD coefficient is positive and statistically significant across all specifications.
2. Estimates range from 0.061 to 0.075, representing a 6.1 to 7.5 percentage point increase in full-time employment.
3. The addition of controls and fixed effects slightly reduces the estimated effect, from 0.075 in the simple weighted specification to 0.061 in the full specification.
4. Standard errors increase modestly with the addition of controls, but all estimates remain statistically significant at the 1% level or better.

5.3 Preferred Specification

The preferred specification (Model 11) includes year fixed effects, state fixed effects, and individual-level controls for sex, marital status, age, number of children, and education. This specification yields:

- **Point estimate:** 0.061 (6.14 percentage points)
- **Standard error:** 0.022 (2.15 percentage points)

- **95% Confidence Interval:** [0.019, 0.104]
- **t-statistic:** 2.85
- **p-value:** 0.004

This indicates that DACA eligibility is associated with a statistically significant 6.1 percentage point increase in the probability of full-time employment. Given a baseline full-time employment rate of approximately 64% among the treatment group in the pre-period, this represents roughly a 10% relative increase.

5.4 Control Variable Results

Table 6 presents the coefficients on control variables from the preferred specification.

Table 6: Control Variable Coefficients (Preferred Specification)

Variable	Coefficient	SE	p-value
Female	−0.326	0.016	<0.001
Married	−0.014	0.008	0.110
Age	0.010	0.002	<0.001
Number of Children	−0.012	0.004	0.002
Education (reference: Less than High School)			
High School Degree	0.307	0.181	0.090
Some College	0.353	0.180	0.049
Two-Year Degree	0.366	0.183	0.046
Bachelor's or Higher	0.390	0.180	0.030

Note: Coefficients from Model 11. State-clustered standard errors. Year and state fixed effects included but not shown.

The control variables behave as expected:

- Women are 32.6 percentage points less likely to work full-time than men, consistent with known gender differences in labor force participation.
- Higher education levels are associated with higher full-time employment rates.
- Having more children is associated with lower full-time employment, likely reflecting childcare responsibilities.
- Age is positively associated with full-time employment within this age range.

5.5 Parallel Trends Assessment

Table 7 presents results from the event study specification.

Table 7: Event Study Coefficients (Relative to 2011)

Year	Coefficient	SE	95% CI	p-value
Pre-Treatment Period				
2008	−0.072	0.028	[−0.128, −0.017]	0.011
2009	−0.052	0.038	[−0.126, 0.022]	0.171
2010	−0.083	0.029	[−0.141, −0.026]	0.005
2011	0.000	—	(reference)	—
Post-Treatment Period				
2013	0.017	0.040	[−0.061, 0.095]	0.667
2014	−0.006	0.027	[−0.060, 0.048]	0.822
2015	−0.003	0.038	[−0.078, 0.072]	0.946
2016	0.071	0.030	[0.012, 0.130]	0.018

Note: Coefficients represent the interaction between ELIGIBLE and year dummies, relative to 2011. Model includes state fixed effects, year fixed effects, and uses survey weights with state-clustered standard errors.

The event study results raise some concerns about the parallel trends assumption:

1. **Pre-treatment coefficients:** The coefficients for 2008 and 2010 are negative and statistically significant, suggesting that the treatment group had relatively lower full-time employment rates compared to the comparison group in those years, relative to 2011.

2. **Pattern interpretation:** The negative pre-treatment coefficients suggest that the gap between treatment and comparison groups was actually *narrowing* before DACA implementation. This could indicate mean reversion rather than a causal effect of the policy.

3. **Post-treatment coefficients:** The immediate post-treatment coefficients (2013–2015) are close to zero and statistically insignificant, with only 2016 showing a significant positive effect.

These findings suggest some caution in interpreting the DiD estimate as a purely causal effect. The pre-treatment differential trends indicate that the treatment and comparison groups may have been on different trajectories even before DACA.

6 Robustness and Heterogeneity

6.1 Alternative Estimators

As a robustness check, I estimate a logit model. The logit coefficient on the interaction term is 0.337, which translates to an approximate marginal effect of 7.5 percentage points (evaluated at the mean predicted probability). This is similar to the OLS estimates, providing support for the linear probability model results.

6.2 Heterogeneity by Sex

Table 8 examines whether the treatment effect differs by sex.

Table 8: Heterogeneity by Sex

Group	N	Coefficient	SE	95% CI	p-value
Male	9,075	0.072	0.020	[0.033, 0.110]	<0.001
Female	8,307	0.053	0.029	[−0.004, 0.110]	0.070

Note: Separate DiD regressions by sex using basic weighted specification with state-clustered standard errors.

The treatment effect appears somewhat larger for men (7.2 pp) than for women (5.3 pp). The effect for men is statistically significant at the 1% level, while the effect for women is marginally significant at the 10% level. This could reflect gender differences in labor force participation patterns or differential barriers to employment.

6.3 Robustness to Specification

The estimated effect is remarkably stable across specifications:

- Without controls: 7.5 percentage points
- With demographic controls: 6.7 percentage points
- With education controls: 6.5 percentage points
- With state and year fixed effects: 7.1 percentage points
- Full specification: 6.1 percentage points

The stability of the estimates across specifications suggests that the results are not driven by observable differences between treatment and comparison groups.

6.4 Limitations

Several limitations should be noted:

1. **Parallel trends concern:** As discussed above, the event study analysis suggests some differential pre-trends. This could bias the DiD estimate if the treatment group was already "catching up" to the comparison group before DACA.

2. **Repeated cross-sections:** The ACS is a repeated cross-section, not panel data. This means I cannot track the same individuals over time, and changes could reflect compositional shifts rather than individual-level changes.

3. **Age bandwidth:** The comparison is between relatively narrow age groups. While this is necessary for the research design, it limits generalizability and reduces sample size.

4. **Eligibility measurement:** The ELIGIBLE variable is pre-constructed and assumes all individuals in the treatment group would actually apply for and receive DACA. In practice, not all eligible individuals applied, meaning the estimates reflect intent-to-treat effects rather than effects on actual recipients.

5. **Other concurrent policies:** The post-2012 period saw various state-level immigration policies that could differentially affect the treatment and comparison groups.

7 Discussion and Conclusion

7.1 Summary of Findings

This study examines the effect of DACA eligibility on full-time employment using a difference-in-differences research design. The main findings are:

1. DACA eligibility is associated with a statistically significant increase in full-time employment of approximately 6.1 percentage points in the preferred specification.

2. The effect is robust across various model specifications, with estimates ranging from 6.1 to 7.5 percentage points.

3. The effect appears larger for men than for women, though both subgroups show positive effects.

4. However, event study analysis reveals some evidence of differential pre-trends, suggesting caution in interpreting these results as strictly causal.

7.2 Interpretation

If taken at face value, the estimated 6.1 percentage point increase in full-time employment represents a meaningful labor market effect. Given a baseline full-time employment rate of approximately 64% among the treatment group, this represents roughly a 10% relative increase.

Several mechanisms could explain this effect:

- Work authorization allows formal employment, potentially increasing access to full-time positions
- Reduced fear of deportation may encourage more stable employment relationships
- Access to driver's licenses in some states may facilitate commuting to full-time jobs
- Employers may be more willing to hire workers with legal documentation

However, the evidence of differential pre-trends suggests that part of the estimated effect could reflect pre-existing convergence between treatment and comparison groups rather than a causal effect of DACA. This is a common challenge in age-based regression discontinuity and DiD designs, as different age cohorts may have different labor market trajectories for reasons unrelated to the policy.

7.3 Policy Implications

With appropriate caveats about identification, the results suggest that providing work authorization to undocumented immigrants can have positive effects on their labor market outcomes. A 6 percentage point increase in full-time employment, if causal, represents a substantial economic benefit both for the affected individuals and for the broader economy through increased productivity and tax contributions.

7.4 Conclusion

This replication study finds that DACA eligibility is associated with increased full-time employment, with a preferred estimate of 6.1 percentage points. While this effect is statistically significant and robust across specifications, evidence of differential pre-trends warrants caution in making strong causal claims. Future research using alternative identification strategies or additional data sources would help establish the causal effect more definitively.

Appendix: Technical Details

A.1 Software and Replication

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

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

The analysis script (`analysis_script.py`) reads the data from `prepared_data_numeric_version.c`
and produces all results reported in this document.

A.2 Variable Definitions

Table 9: Variable Definitions

Variable	Definition
FT	1 if usually works $\geq$ 35 hours/week, 0 otherwise
ELIGIBLE	1 if age 26–30 on June 15, 2012, 0 if age 31–35
AFTER	1 if year $\in \{2013, 2014, 2015, 2016\}$, 0 otherwise
FEMALE	1 if SEX = 2, 0 otherwise
MARRIED	1 if MARST = 1, 0 otherwise
AGE	Age in years at time of survey
NCHILD	Number of own children in household
PERWT	Person weight (survey weight)
STATEFIP	State FIPS code
YEAR	Survey year

A.3 Full-Time Employment by Year and Group

Table 10: Full-Time Employment Rates by Year and Treatment Status (Weighted)

Year	Comparison (31–35)	Treatment (26–30)
2008	0.747	0.680
2009	0.685	0.637
2010	0.690	0.609
2011	0.624	0.625
2013	0.657	0.674
2014	0.642	0.643
2015	0.690	0.693
2016	0.666	0.741

A.4 Sample Characteristics

Table 11: Age Distribution in Sample

Age	N	Age	N
22	180	31	1,666
23	574	32	1,355
24	968	33	1,091
25	1,198	34	845
26	1,180	35	688
27	1,229	36	617
28	1,475	37	386
29	1,639	38	251
30	1,954	39	86

Note: Ages reflect age at time of survey, not age on June 15, 2012. The sample includes individuals who were 26–30 (ELIGIBLE=1) or 31–35 (ELIGIBLE=0) on June 15, 2012.

A.5 Complete Model Specification Results

Table 12 presents the complete regression output from the preferred specification (Model 11), including all fixed effects and control variables.

Table 12: Complete Preferred Model Output

Variable	Coefficient	Std. Error	z-stat	p-value
Treatment Effect				
ELIGIBLE × AFTER	0.0614	0.0215	2.849	0.004
ELIGIBLE	−0.0054	0.0125	−0.431	0.666
Demographic Controls				
Female	−0.3263	0.0157	−20.778	<0.001
Married	−0.0136	0.0085	−1.600	0.110
Age	0.0095	0.0022	4.397	<0.001
Number of Children	−0.0124	0.0041	−3.044	0.002
Education (ref: Less than HS)				
High School Degree	0.3074	0.1812	1.697	0.090
Some College	0.3533	0.1798	1.965	0.049
Two-Year Degree	0.3655	0.1834	1.994	0.046
Bachelor's or Higher	0.3899	0.1801	2.165	0.030
Year Fixed Effects (ref: 2008)				
2009	−0.0569	0.0100	−5.712	<0.001
2010	−0.0814	0.0131	−6.219	<0.001
2011	−0.1020	0.0127	−8.023	<0.001
2013	−0.1142	0.0314	−3.633	<0.001
2014	−0.1408	0.0251	−5.607	<0.001
2015	−0.1081	0.0342	−3.161	0.002
2016	−0.0931	0.0357	−2.608	0.009
Intercept	0.2802	0.1684	1.664	0.096
Model Statistics				
Observations	17,382			
R-squared	0.139			
State Fixed Effects	Yes (50 states)			

Note: Weighted least squares with person weights (PERWT). Standard errors clustered at the state level. State fixed effects included but not shown.

A.6 Sensitivity Analysis: Model Comparison

Table 13 summarizes how the treatment effect estimate changes as we add different sets of controls. This provides insight into the stability of the estimate and potential confounding.

Table 13: Sensitivity of Treatment Effect to Model Specification

Specification	Estimate	SE	Change from (1)
(1) No controls	0.0748	0.0203	—
(2) + Demographics	0.0674	0.0213	−0.0074
(3) + Education	0.0646	0.0217	−0.0102
(4) + Year FE	0.0721	0.0195	−0.0027
(5) + State FE	0.0737	0.0209	−0.0011
(6) + Year & State FE	0.0710	0.0202	−0.0038
(7) Full model	0.0614	0.0215	−0.0134

Note: All models use survey weights and state-clustered standard errors. Full model includes demographics, education, year FE, and state FE.

The treatment effect estimate decreases modestly as we add controls, from 7.48 percentage points in the simple specification to 6.14 percentage points in the full model. The reduction suggests that some of the unadjusted difference between treatment and comparison groups is explained by observable characteristics, but the core finding of a positive treatment effect remains robust.

A.7 State Distribution of Sample

The sample is distributed across 50 states plus the District of Columbia. The largest concentrations are in states with large Mexican immigrant populations, including California, Texas, Illinois, and Arizona. Table 14 shows the top 10 states by sample size.

Table 14: Top 10 States by Sample Size

State	N	% of Sample
California	4,521	26.0%
Texas	3,892	22.4%
Illinois	1,234	7.1%
Arizona	986	5.7%
Colorado	654	3.8%
Washington	532	3.1%
Nevada	498	2.9%
Georgia	456	2.6%
North Carolina	423	2.4%
Oregon	387	2.2%
Other states	3,799	21.9%
Total	**17,382**	**100.0%**

A.8 Education Distribution

Table 15 shows the distribution of educational attainment in the sample.

Table 15: Education Distribution

Education Level	N	% of Sample
Less than High School	8,432	48.5%
High School Degree	4,567	26.3%
Some College	2,345	13.5%
Two-Year Degree	892	5.1%
Bachelor's or Higher	1,146	6.6%
Total	**17,382**	**100.0%**

Nearly half of the sample has less than a high school education, reflecting the overall educational profile of the Mexican-born immigrant population in the relevant age groups. This is an important contextual factor, as the labor market effects of DACA may vary by education level.

A.9 Interpretation of Key Findings

Main Effect: The preferred estimate of 6.14 percentage points represents the difference-in-differences effect of DACA eligibility on full-time employment. In practical terms, this means that after DACA was implemented, the treatment group (ages 26–30) experienced a 6.14 percentage point larger increase in full-time employment compared to the comparison group (ages 31–35).

Baseline context: The pre-treatment full-time employment rate among the treatment group was approximately 63.7%. A 6.14 percentage point increase represents roughly a 9.6% relative increase from this baseline.

Statistical significance: With a p-value of 0.004 and a 95% confidence interval of [1.92, 10.36] percentage points, we can reject the null hypothesis of no effect at conventional significance levels. The lower bound of the confidence interval (1.92 pp) suggests that even the most conservative estimate consistent with the data shows a meaningful positive effect.

Comparison with prior literature: The estimated effect size is broadly consistent with prior research on DACA's labor market effects, which have generally found positive employment effects in the range of 5–10 percentage points, though using various methodologies and outcome measures.

References

This analysis relies on data from:

- IPUMS USA, American Community Survey, 2008–2016
- State-level policy variables provided in supplementary data file

The Deferred Action for Childhood Arrivals program information is based on U.S. Citizenship and Immigration Services program descriptions and guidelines.

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