

# **Immigration Status and Psychological Wellbeing: The Mixed Effects of the Deferred Action for Childhood Arrivals (DACA) Program among Latino Immigrants in California, 2007-2016**

Caitlin Patler, Erin Hamilton, and Robin Savinar, University of California, Davis

## **Extended Abstract**

### ***1. Introduction***

The United States is home to 11 million undocumented immigrants, including 5 million children and young adults under age 30, the majority (78 percent) of whom are from Latin America (Patler, 2017). Undocumented immigrants in the U.S. face many challenges, including reduced access to healthcare, education, formal jobs, and political participation. Young Latino immigrants are more likely to live in poverty and have higher rates of clinical depression than native-born youth (Potochnick & Perreira, 2010). Researchers increasingly cite legal status as a key axis of stratification in contemporary US society (Bean, Brown, & Bachmeier, 2015; Menjivar, 2006).

If undocumented status is a major driver of inequality and poor mental health, what happens when someone's legal status changes? We capitalize on a "natural" or quasi-experiment (Morgan & Winship, 2014)—the Deferred Action for Childhood Arrivals (DACA) program—to identify causal impacts of changes to legal status. The DACA program was announced by President Obama in June 2012. It granted eligible undocumented youth temporary relief from deportation, and access to work authorization and other benefits, renewable every two years. However, in 2015 then-candidate Trump declared that he would rescind the program and, in September 2017, the Trump administration announced plans to phase out the program, making DACA's future uncertain.

### ***2. Data, Analytical Strategy & Measures***

We analyze the psychological distress of DACA recipients in California before and after receiving DACA. We focus on California, as the home to 26 percent of all DACA recipients, and draw on two sources of data. First, we assess DACA's impacts on psychological wellbeing among Latina/o-origin immigrant youth using multiple waves (2007-2016) of representative statewide data collected via the California Health Interview Survey (CHIS).

Our analyses utilize a difference-in-differences (DID) approach. DID models compare the impacts of a "treatment" on a "treatment group," compared to a "control group," before and after the treatment is introduced. In our case, the treatment is the DACA program, the treatment group is the DACA-eligible, and DACA's 2012 initiation demarks the pre- and post-periods. We compare the DACA-eligible population to two control groups (described below) prior to and after the treatment. After confirming that the groups followed parallel trends in outcomes prior to DACA's introduction, any difference in the trend lines between the DACA eligible and DACA ineligible in the post-period is interpreted as the program's impact.

We use dynamic treatment effect DID models, which are characterized by sequences of interventions that require dividing the post-treatment period into relevant sub-periods (Fricke, 2017; Miquel, 2003). In the case of DACA, we consider one pre-period and two treatment periods. The pre-period is 2007-2011. The first post-period is 2012-2014, which we characterize as the pre-Trump period. We consider 2015-2016 as the U.S. presidential campaign and election period, characterized by explicit and highly publicized anti-immigrant rhetoric and threats to the DACA program. Rather than interact a single post-period dummy with the treatment group, we incorporate post-period dummy variables for 2012-2014 and 2015-2016.

Our analysis compares one treatment group (the DACA-eligible) to two distinct control groups: undocumented immigrants who are ineligible for DACA (the undocumented-ineligible) and documented immigrants (naturalized citizens and lawful permanent residents).<sup>1</sup>

We measure psychological distress in two ways. First, we use the Kessler 6-question psychological distress scale (K-6) measured continuously.<sup>2</sup> We model K6 scores using poisson regression to account for overdispersion. We also use logistic regression to model a binary variable for moderate-to-severe distress, defined by K6 scores of 5 or higher. Our models also control for respondent's age, age of arrival, gender, and marital status (married versus not). Table 1 provides descriptive statistics for the sample.

We also draw from the DACA Study, which uses original survey data and in-depth interviews with 502 Californians who considered applying for DACA. This study allows us to examine the mechanisms that may explain why and how DACA's impacts vary over time.

### 3. Findings

Table 2 displays regression results for our dynamic treatment DID analyses of psychological distress. Our results show that the DACA-eligible had a significantly lower distress level in the 2012-14 post-DACA period than in the 2007-11 pre-DACA period, compared to the documented control group. Specifically, in the 2012-14 period, DACA-eligible Latino immigrants had predicted distress scores that were 31 percent lower than during the pre-DACA period (2.75 points compared to 3.98 points), whereas the scores of documented immigrants were not statistically significantly different from the pre- to post-DACA period (see Figure 1). By 2015-16, this “difference in differences” had disappeared: the groups were again similar. Moderate-to-severe distress scores followed similar patterns of initial improvements in 2012-14, followed by regression to the mean by 2015 (see Table 2 and Figure 2).

The qualitative data provided by survey and in-depth interview responses to the DACA Study in 2014 help to explain the initial improvements to psychological wellbeing. DACA recipients reported that the program relieved the chronic stress of deportation from their lives. They reported a newfound sense of security and safety in their temporary status, and they felt less excluded, more optimistic and more integrated into American sociocultural and political life. Recipients also reported that the work

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#### Notes

<sup>1</sup> All groups meet the following DACA eligibility criteria: they are between the ages of 15-30 in 2012, have a high school degree or GED, are currently enrolled in school, or served in the military. We restrict all groups to be ages 15-30 in 2012. Documented immigrants and the DACA-eligible group—our treatment group—satisfy the additional criteria of having arrived in the U.S. in 2007 or earlier and being younger than age 16 at the time of arrival. Two additional DACA criteria are not directly observable in the CHIS data: criminal record and continuous residence in the United States from 2007 to 2012. We assume that respondents have resided continuously in the United States since the year they arrived.

<sup>2</sup> The K-6 question from the CHIS reads as follows:

“The next questions are about how you have been feeling during the past 30 days.

1. About how often during the past 30 days did you feel nervous—Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?
2. During the past 30 days, about how often did you feel hopeless—all of the time, most of the time, some of the time, a little of the time, or none of the time?
3. During the past 30 days, about how often did you feel restless or fidgety?
4. How often did you feel so depressed that nothing could cheer you up?
5. During the past 30 days, about how often did you feel that everything was an effort?
6. During the past 30 days, about how often did you feel worthless?”

Each question is scored as follows: all (4 points), most (3), some (2), a little (1), none (0). Total score range: 0-24.

authorization provided by DACA helped to relieve the distress related to finding work and the economic hardship they faced.

However, despite the positive nature of these short-term results, the results in Table 2 (and in Figures 1 and 2) also show that by 2015-16, the distress levels of the DACA-eligible were not statistically different from their pre-DACA distress levels. The DACA Study interviews from 2015 and 2016 showed that by that time, many of the DACA-eligible began to realize that the DACA program might not be a permanent solution for them. They pointed to their continued worries about family members who did not qualify for the program and remained undocumented. Some felt that their goals were still out of reach, or they worried about making decisions, because their legal status was not permanent. With the initiation of the 2016 presidential campaign, respondents expressed concern that the program might be rescinded.

#### 4. Conclusion

Our study supports the idea that providing undocumented immigrants legal status reduces distress and supports psychological wellbeing in the short-term. However, it also suggests that undocumented young people are vulnerable to the stress of the uncertainty and temporariness that characterize the DACA immigration policy. If DACA is terminated, people who have had DACA and then lose it may feel even more vulnerable and distressed than they did before the program was announced. Our results suggest that a permanent legalization program would better support the psychological wellbeing of previously-undocumented young people.

#### Tables & Figures

**Table 1. Weighted Characteristics of Sample, by Legal Status**

	<b>DACA Eligible</b>	<b>Undocumented Ineligible</b>	<b>Documented</b>
Kessler 6 Score (0-24)	3.59	4.01	3.88
Moderate or worse distress (K6 $\geq$ 5)	30.42	37.04	33.01
Age in years (mean) <sup>a,b,c</sup>	19.45	25.73	23.26
Age at migration <sup>a,b</sup> (mean)	6.91	19.05	6.18
Male (%)	50.61	48.34	47.09
Married (%) <sup>a,b,c</sup>	10.42	30.42	19.01
Observations	621	480	1,270

*Sample is foreign-born people ages 15-30 in 2012; who were born in Mexico, Central America or Other Latin America, or who identify as Hispanic; who have a high school diploma or GED, are currently enrolled in school, or served in the U.S. armed forces.*

<sup>a</sup>  $p < .05$  mean(documented) - mean(undocumented ineligible) = 0

<sup>b</sup>  $p < .05$  mean(undocumented ineligible) - mean(DACA-eligible) = 0

<sup>c</sup>  $p < .05$  mean(documented) - mean(DACA-eligible) = 0

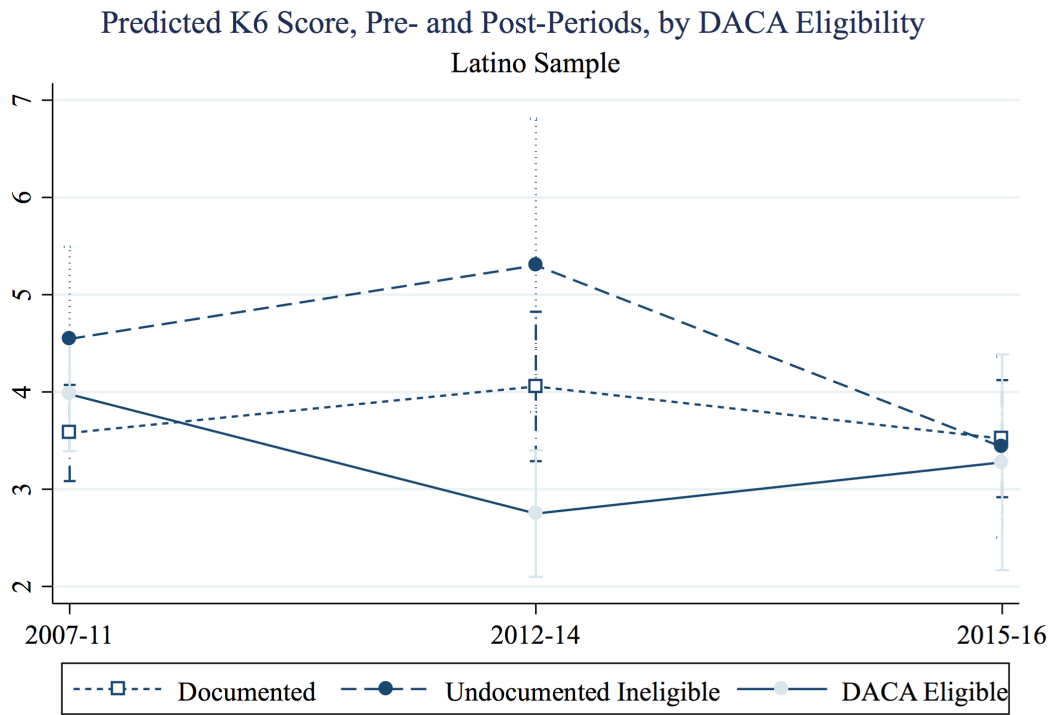
**Table 2. Difference-in-Differences Estimates of DACA’s Impact on Psychological Wellbeing from Poisson and Logistic Regressions of the Kessler 6 Scores among Latino Immigrants**

	<b>Kessler 6 Score past 30 days (0-24)</b>		<b>Moderate or Worse Psychological Distress (K6≥5)</b>	
	<i>Poisson</i>	SE	<i>Logistic regression</i>	SE
Undocumented Ineligible (ref=Doc)	0.24+	(0.13)	0.15+	(0.08)
DACA Eligible	0.11	(0.09)	0.03	(0.05)
Age	-0.01	(0.01)	-0.01*	(0.00)
Sex male	-0.06	(0.07)	-0.01	(0.03)
Married	0.13	(0.12)	0.05	(0.05)
Age at migration	-0.01+	(0.01)	-0.01*	(0.00)
Post-period 1 (2012-2014)	0.13	(0.12)	-0.00	(0.05)
Post-period 2 (2015-2016)	-0.02	(0.11)	-0.01	(0.05)
Undocumented Ineligible*Post 1	0.03	(0.19)	0.04	(0.10)
Undocumented Ineligible*Post 2	-0.26	(0.18)	-0.02	(0.10)
DACA Eligible*Post 1	-0.49**	(0.18)	-0.16*	(0.08)
DACA Eligible*Post 2	-0.18	(0.21)	-0.10	(0.09)
Constant	1.59***	(0.15)	0.58***	(0.08)
Observations	229,523		229,523	
R-squared			0.030	

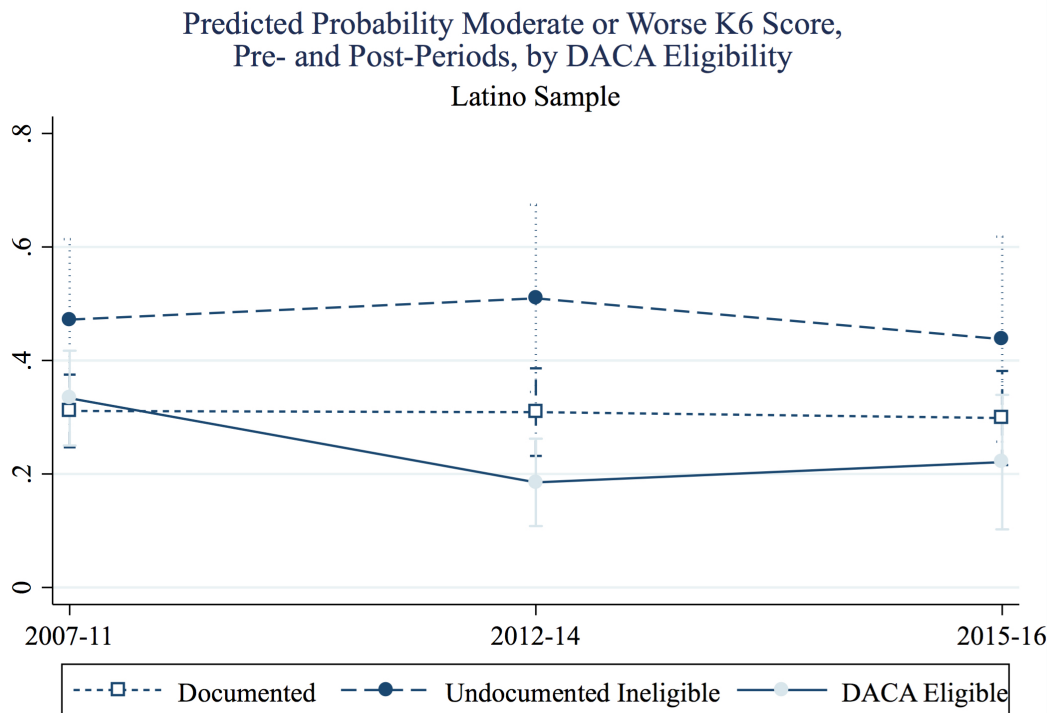
*Standard errors in parentheses.*

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$

**Figure 1. Predicted Kessler 6 Psychological Distress Scores**



**Figure 2. Predicted Probability Moderate or Worse Kessler 6 Score (K6>=5)**



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