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# **Legal Vulnerability and Campus Environment: Assessing Factors that Affect the Academic Engagement of Undocumented College Students**

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**Abstract:** Prior research has established that undocumented students experience structural marginalization which compromises their access, retention, and success in higher education. Building on this work, this study turns attention to their academic engagement, an important intermediary outcome. Using survey data collected from 1,277 undocumented undergraduate students attending California 4-year public universities, we examine the extent to which legal vulnerability, campus climate, and resource use are associated with positive and negative academic engagement. Findings reveal the sustained role of campus environment, as positive perceptions of campus climate are associated with positive engagement and negative perceptions with negative engagement. Use of various campus resources tends to be associated with increased positive engagement and decreased negative engagement. Only financial legal vulnerabilities are associated with negative engagement and are not associated with positive engagement. We contend that the campus environment plays an important role in fostering undocumented students' academic engagement.

**Keywords:** Undocumented students, higher education, academic engagement, legal vulnerability, campus climate, resource use

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Undocumented students face substantial educational barriers. They are barred from accessing federal financial aid while state and institutional policies determine whether they can attend, pay in-state tuition rates, receive state financial aid, and apply for institutional scholarships (Diaz-Strong et al., 2011). Their own and family members' lack of employment authorization increases the likelihood that they have low incomes and face financial barriers to access and retention in higher education (Suárez-Orozco et al., 2015; Terriquez 2015). Those who persist in higher education may have access to some campus resources and opportunities but be denied others due to their immigration status (Morales Hernandez & Enriquez, this issue). They may experience negative campus climates through interpersonal discrimination, microaggressions, and limited feelings of belonging (Suárez-Orozco et al., 2015). However, campuses have sought to create inclusive climates and resources with the development of undocumented student services designed to meet the unique needs of this student population (Cisneros & Reyna Rivarola, 2020; Cisneros & Valdivia 2020). Building on this work, this paper assesses the extent to which these legal vulnerabilities and campus environment factors have implications for undocumented students' academic engagement.

Scholars have established that undocumented students struggle to meet their academic potential. For instance, undocumented college students are less likely to demonstrate academic growth than their lawfully-present peers (Kreisberg & Hsin 2020). Behavioral engagement is an important intermediary student outcome as it is positively related to outcomes such as GPA, critical thinking, and retention (Astin, 1984; Kuh et al., 2007). Prior research suggests that undocumented students' own and family members' immigration-related issues foster academic distractions (Enriquez et al., 2019), which are associated with more frequent behaviors that compromise one's academics (e.g., missing assignments, going to class unprepared) (Chavarria

et al., this issue). Yet, undocumented students also demonstrate resilience and actively seek out support and resources to support their educational endeavors (Contreras, 2009). Building on this work, we differentiate between positive and negative behavioral engagement as unique actions, rather than the presence or absence of the same action. Specifically, we conceptualize positive academic engagement behaviors as active engagement in one's studies (e.g., studying with peers, communicating with the instructor) and negative behaviors as active disengagement (e.g., skipping class, going to class unprepared).

Using original survey data collected from 1,277 undocumented undergraduate students in California, we examine potential factors that may compromise or promote undocumented students' behavioral engagement. We conduct hierarchical regression to determine the extent to which legal vulnerability, campus climate, and resource use are associated with positive and negative academic engagement. Findings suggest that perceptions of campus climate and use of various campus resources are associated with both forms of engagement, although there is some important variation. Only food insecurity, used as a proxy for financial legal vulnerability, was associated with negative engagement. Thus, we contend that the campus environment plays an important role in fostering undocumented students' academic engagement.

## LITERATURE REVIEW

Theories of educational engagement assert that the amount of time and quality of interactions with the educational environment translate to improved academic outcomes (Astin, 1984; Kuh, 2009; Tinto 1993). Such actions can be categorized as *behavioral engagement* (involvement and participation in academic, social, or extracurricular activities), *relational or emotional engagement* (positive and negative reactions to teachers, classmates, academics, and school activities) and *cognitive engagement* (investment and motivation) (Fredricks et al., 2004).

These forms of engagement are important intermediary academic outcomes that are positively associated with student motivation, critical thinking, GPA, and retention (Gellin, 2003; Kuh et al., 2007; Pike, 2000). Whereas students who are less academically engaged have greater odds of declining skills, lower GPA, and leaving college prematurely (Connell & Wellborn, 1991; Kuh et al, 2007; Tinto, 1993).

In this study, we nuance discussions of behavioral engagement by distinguishing between positive and negative behaviors. Most research has treated engagement as opposite sides of the same coin. For instance, Astin (1984) wrote,

A highly involved student is one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students. Conversely, a typical uninvolved student neglects studies, spends little time on campus, abstains from extracurricular activities, and has infrequent contact with faculty members or other students. (p. 518)

More recent conceptualizations have focused on whether or not students participate in educationally productive activities that bolster their involvement and integration (Kuh, 2009). Such definitions obscure the fact that students may actively engage and disengage in unique activities that can either promote or harm their academic endeavors. Thus, we examine undocumented students' positive and negative academic engagement independently. Below we summarize the literature related to three factors that may affect their engagement: legal vulnerability, campus climate, and resource use.

### **Legal Vulnerability**

One way in which legal vulnerability manifests in undocumented students' educational

experiences is through financial strain. In the absence of federal and state financial aid, undocumented students struggle to finance their education and report working full-time and/or multiple jobs, compromising their schoolwork (Contreras, 2009; Terriquez, 2015). However, California has adopted inclusive policies such as AB-540 which provides access to in-state tuition and the California Dream Act which provides access to state and institutional financial aid. As a result, undocumented students report reductions in their financial strains but still struggle to close financial aid gaps (Enriquez et al., 2019; Golash-Boza & Valdez 2018). Further, they tend to have undocumented parents and come from low-income families, reducing the likelihood that they are able to mount family financial resources to cover college expenses (Diaz-Strong et al., 2011; Terriquez, 2015). Financial strain increases their risk of food insecurity (Enriquez et al., this issue), which is associated with poorer academic outcomes (Camelo & Elliot, 2019). They also face pressures to work to help support their own and family members' basic needs and educational expenses (Enriquez et al., 2019). This may negatively affect their behavioral engagement as students who have high family and work demands are less likely to display positive behavioral engagement through participation in high impact educational practices, such as internships, learning communities, or capstone projects (Kuh, 2009).

Deportation threats are another aspect of legal vulnerability that can compromise undocumented students' academics. Students who experience forced family separation demonstrate academic achievement gaps (Kirksey et al., 2020). In addition, concerns about their potential deportation can alter students' behaviors, such as whether or not they attend school (Jefferies, 2014) or if they are distracted in class (Enriquez et al., 2019). Undocumented students may also be concerned about the deportation risks of their family members; indeed, Enriquez and Millán (2021) found that undocumented college students and young adults in California are

twice as likely to think about their parents' deportation than their own.

Importantly, the Deferred Action for Childhood Arrivals (DACA) program created a new form of liminal legality by providing access to employment authorization and protection from deportation. As a result, it has the potential to lower perceived legal vulnerability as it relates to financial strain and deportation threats, buffering against the potential negative effects legal vulnerability poses to academic engagement. Evidence suggests that DACA-eligible youth may be more optimistic about pursuing higher education and have the financial resources to do so (Gonzales et al., 2019). DACA recipients also face fewer barriers for engaging in high-impact practices, such as internships and research opportunities (Morales Hernandez & Enriquez, this issue). However, DACA recipients may face competing demands on their time as they make use of their newfound employment authorization, which can compromise their college enrollment and retention (Amuedo-Dorantes & Antman, 2017; Hamilton et al., 2020; Hsin & Ortega 2018).

### **Campus Climate**

Undocumented students may contend with negative and/or anti-immigrant campus climates. At the individual level, faculty, staff, and peers can foster a negative campus climate through microaggressions and a lack of awareness about student needs (Pérez Huber, 2010); such actions can impede students' sense of campus belonging and result in decreased engagement in campus life (Yosso et al., 2009). At the institutional level, universities ignore undocumented communities and create exclusionary campus climates (Muñoz & Vigil, 2018). Research has linked negative campus climate with reduced academic engagement (Franco & Kim, 2018), compromised intellectual development (Nora & Cabrera, 1996), and higher rates of attrition (Gurin, et al., 2002). Furthermore, it can produce additional strains such as immense stress (Yosso et al., 2009), increased depression (Hurtado et al., 2012), and a compromised sense of

belonging (Hurtado & Ponjuan, 2005).

Prior research with undocumented students suggests that a positive campus climate is critical to their success and distinct from the absence of a negative climate. For instance, a college's reputation for being undocu-friendly influences undocumented students' college selection (Suárez-Orozco et al., 2015). An undocu-friendly campus climate may be signaled with the creation of dedicated undocumented student services, which facilitates opportunities for campus engagement and promotes feelings of belonging (Cisneros & Valdivia, 2020; Enriquez et al., 2019). It can also be created through institutional statements of support for undocumented students as well as interpersonal interactions such as interrupting offensive language or jokes and practicing culturally sensitive language (Cisneros & Lopez 2020; Santellano, 2019).

### **Resource Use**

The use of campus-wide resources can increase college student success and retention (Tinto, 1993). Academic advising and support services can foster academic and social learning, which reinforce each other and promote academic success, positive university perceptions, and retention (Young-Jones et al., 2013). Mental health services can address underlying barriers and in some cases their use can increase academic performance and degree completion (Lee et al., 2009; Schwitzer et al., 2018). A multitude of structural and socio-emotional barriers can prevent college students from accessing needed campus resources such as food pantries, mental health services, and disability services (El Zein et al., 2018; Marshak et al., 2010). For undocumented students, concerns about facing stigma, anti-immigrant sentiment, and/or microaggressions may dissuade them from attempting to gain access to these resources (Cha et al., 2019; Pérez Huber, 2010). Further, undocumented students report being explicitly denied access to resources due to their immigration status (Enriquez et al., 2019). Yet, Sarabia et al (this issue) find that such



exclusionary experiences are not necessarily preventing undocumented students from accessing resources, rather campus integration substantially predicts undocumented students' use of academic support services.

In light of these barriers, undocumented students may make use of undocumented student services and resource centers. Established in response to undocumented student activism, these resources provide critical sources of support meant to meet the unique needs of undocumented students; their offerings include financial aid, mental health counseling, opportunities in professional development, and resources to ameliorate financial needs such as book lending libraries and food pantries (Cisneros & Reyna Rivarola, 2020). These services facilitate opportunities for campus engagement, promote feelings of belonging, and support academic success (Cisneros & Valdivia, 2020; Enriquez et al., 2019).

### **Current Study**

Building on previous research, our study aims to explore how legal vulnerability, campus climate toward undocumented immigrants, and resource use are associated with positive and negative academic engagement among undocumented college students. We deploy a social ecological framework to recognize the importance of individual factors, meso-level institutional environments, and macro-level systemic inequities (Suárez-Orozco et al., 2011). This framework allows us to consider interrelated contexts that create challenges for undocumented students in the macro and meso ecological system (i.e., financial strain, threats of deportation, negative campus climate) as well as assets and interventions that support students within the meso system (i.e., use of campus resources, positive campus climate toward immigrants). Given the challenges tied to legal vulnerability, we expect that food insecurity, concerns about self or family deportation, and having no legal status will be associated with lower positive academic

engagement and higher negative engagement. We expect that more positive campus attitudes towards immigrants will result in higher positive academic engagement and lower negative academic engagement, whereas more negative campus attitudes will result in higher negative academic engagement and lower positive academic engagement. Lastly, we expect that use of campus wide resources and undocumented student services will be related to higher levels of positive academic engagement and lower levels of negative academic engagement.

## **METHODS**

This study uses survey data collected online from March to June 2020 with 1,277 undocumented undergraduate students attending California 4-year public universities. All project activities were approved by the University of California, Irvine IRB.

### **Sampling and Procedures**

Participants were recruited from all nine University of California (UC) undergraduate campuses and nine of the 23 California State University (CSU) campuses; CSUs were selected for similar geographic location to each UC. Recruitment announcements were distributed widely, including emails and social media posts from each campus' undocumented student support services office, faculty teaching large general education courses and ethnic studies courses, departmental and university office newsletters, and undocumented student organizations. Eligibility criteria included being over age 18, having at least one immigrant parent, and current enrollment as an undergraduate student at a California State University (CSU) or University of California (UC) campus. Respondents had to self-identify as being born outside of the United States and having no permanent legal status (e.g., no legal status, DACA, or other liminal legal status). The survey was administered via Qualtrics with an estimated completion time of 25–35 minutes. Respondents received \$10 electronic gift card compensation. The analytical sample for

this study includes cases with completed data for both outcome variables ( $n=1,101$ ).

### **Sample**

Fifty-two percent of students attended a UC campus ( $n=576$ ) and 48% attended a CSU ( $n=525$ ). The mean age among students was 21.79 years ( $SD=3.348$ ); and 81% of students were between 18-23 years old. Most students were Latinx (92%,  $n=1016$ ) and women (77%,  $n=852$ ). Seventy percent of students were in their 3rd year or higher ( $n=767$ ). Students reported not working (46%,  $n=511$ ), working 20 hours or less (31%,  $n=336$ ), or working more than 20 hours (23%,  $n=254$ ). A quarter of students were undocumented ( $n=272$ ) and 75% reported some status (i.e., DACA or TPS;  $n=829$ ). Students reported thinking about their own (37%,  $n=412$ ) or parents' deportation (51%,  $n=556$ ) daily or weekly. Sixty percent of participants reported being food insecure ( $n=656$ ). Students reported using campus wide resources at varying rates: academic counselor (85%,  $n=924$ ), academic support services (62%,  $n=683$ ), career center (45%,  $n=491$ ), identify based center (39%,  $n=425$ ), basic needs (53%,  $n=587$ ), health center (59%,  $n=646$ ), and mental health counseling (27%,  $n=293$ ). Nearly 70% of students reported accessing undocumented student services (68%,  $n=746$ ).

### **Dependent Variables**

Factor analysis was conducted to determine underlying structures for seven academic engagement variables. The Maximum Likelihood extraction method was used with Varimax rotation. Two factors had eigen values above 1 and accounted for 57.5% of the variance. Four items clustered on the same factor representing Positive Academic Engagement (factor loadings ranged from .472-.692) and three items clustered on a second factor representing Negative Academic Engagement (factor loadings ranged from .647-.738).

Positive academic engagement was measured using four questions assessing students'

involvement in pro-academic behaviors. Items addressed frequency in seeking help from the instructor or tutor when needed, participating in study groups with peers, contributing to class discussion, and communicating with instructors about issues or concepts ( $\alpha=.70$ ). Negative academic engagement was measured with three questions. These items assessed the frequency for which students failed to turn in assignments, went to class unprepared, and skipped class ( $\alpha=.73$ ). Response options for both scales included never (0), rarely (1), sometimes (2), and often (3). Scores for the positive academic engagement scale could range from 0-12 ( $M=6.56$ ,  $SD=2.81$ ) and for negative academic engagement from 0-9 ( $M=3.56$ ,  $SD=2.22$ ). A higher score was indicative of engaging in the behaviors more frequently.

### **Independent and Control Variables**

Demographics pertaining to participants' age (continuous variable), Latina/o/x racial/ethnic origin (coded, yes=1, no=0) and gender (coded, men=1, women=0) were included in the model as control variables. Number of hours students work a week was recoded as dummy codes for not working, 1-20 hours, and 21 hours or more, with not working as the reference category. Year in school was categorized as 1-2 years (coded as 0) or 3 or more years (coded as 1). Students were recruited from two different university systems in California (UC=1, CSU=0); this variable was included since resources available to students vary across campus systems.

Predictor variables were entered in the model in three blocks. Following the control variables, we added the legal vulnerability block. Legal vulnerability was assessed with four measures. Students' immigration status was coded as no legal status (coded as 0) or liminal legal status (i.e., DACA or TPS, coded as 1). Food insecurity was used as a proxy for financial strain. The U.S. Household Food Security Survey Module was used to assess food insecurity (USDA Economic Research Service 2012). The measure contained five items and scores ranged between

0-6 points; raw scores ranging from 0 to 1 indicate high or marginal food security, 2 – 4 indicate low food security, and 5 – 6 indicate very low food security. Those with low or very low food security were identified as food insecure (coded, yes=1, no=0). Threat of deportation was assessed with two independent questions, “How often do you think about your \_\_\_ deportation,” for self and parent/guardian. We coded daily/weekly as 1 and monthly-never as 0.

The next block included campus climate variables. Two measures were used to assess students’ perception of the campus climate. Campus attitudes towards immigrants were assessed with two scales capturing positive and negative attitudes. Each scale included four questions reflecting faculty, staff, peer, and surrounding community perceptions. The items were measured on a 4-point scale (never, rarely, sometimes, often). Sample questions, for the negative campus attitudes included whether the students had, “Heard or witnessed \_\_\_\_\_ express negative feelings about undocumented immigrants” ( $\alpha=.82$ ); and for positive campus attitudes, “Heard or witnessed \_\_\_\_\_ express positive feelings about undocumented immigrants” ( $\alpha=.82$ ). Higher scores represent more affirmation of the scale.

In the final block we include students’ use of campus-wide resources and undocumented student services. Campus-wide resources included academic counseling, academic support services, career center, identity-based center, basic needs/food pantry, health center, and mental health counseling. Each resource was coded as whether or not they had used it during the current academic year, yes=1, no=0. We also include a variable for use of undocumented student services (coded yes=1, no=0).

## **Analysis**

Analyses were completed using IBM SPSS 24. Hierarchical regression analyses were performed to examine factors associated with undocumented students’ reports of academic

engagement. Two independent analyses were completed for positive and negative academic engagement. The hierarchical regression included four blocks of variables: controls, legal vulnerability, campus climate, and resource use. The control variables (age, gender, Latina/o/x, working, years in school, and university system) were entered in the first model. The next model added legal vulnerability variables (immigration status, food insecurity, and threat of deportation for self and parent). The third model added campus climate predictors including positive and negative attitudes towards immigrants. And the final block added the campus resources use variables – academic counselor, academic support services, career center, identity-based center, basic needs/food pantry, health center, mental health counseling, and undocumented student services. Including the variables in sequential blocks allowed for an evaluation of the contribution of each set of variables as they were added to the model. Multicollinearity was ruled out by examining the tolerance and variance inflation factor values.

## **RESULTS**

The analysis was performed independently for positive and negative academic engagement. Results indicated various factors were associated with academic engagement. See Tables 1 and 2 for an overview of results.

### **Positive Academic Engagement**

The first model, including the control variables, accounted for less than 1% of the variance ( $R^2_{\text{adj}}=.005$ ,  $F(7, 1093)=1.824$ ,  $p>.05$ ). In this model, age was significant, older age was associated with positive academic engagement. The second model added the legal vulnerability variables: immigration status, food insecurity, and threat of deportation for self and parents ( $R^2_{\text{adj}}=.003$ ,  $F(11,1089)=1.314$ ,  $p>.05$ ). The addition of the legal vulnerability variables accounted for less than 1% of the variance in the model ( $R^2_{\text{change}} = .002$ ,  $p>.05$ ). Age remained significant in

the same direction. The legal vulnerability variables were not significant. The third model added the campus climate variables and accounted for 3.5% of variance in the model ( $R^2_{adj} = .035$ ,  $F(13,1087) = 4.100$ ,  $p < .001$ ;  $R^2_{change} = .034$ ,  $p < .001$ ). Age remained significant; the legal vulnerability variables remained non-significant. Positive attitudes towards immigrants was significant ( $b = .175$ ,  $p = .001$ ) as well as negative attitudes towards immigrants ( $b = .077$ ,  $p = .014$ ); indicating that a higher score in both positive and negative attitudes towards immigrants was associated with an increase in positive academic engagement. The final model added the campus resource use variables. The final model accounted for 13.2% of the variance ( $R^2_{adj} = .132$ ,  $F(21, 1079) = 8.970$ ,  $p < .001$ ;  $R^2_{change} = .102$ ,  $p < .001$ ). After adding the resource use variables, age ( $b = .095$ ,  $p = .006$ ) and positive attitudes towards immigrants ( $b = .127$ ,  $p < .001$ ) remained significant in the same direction as the previous models. Negative attitudes towards immigrants was no longer significant in the final model ( $b = .022$ ,  $p = .467$ ). Several of the resource use variables were significant in the model. Meeting with an academic counselor ( $b = .179$ ,  $p < .001$ ), using academic support services ( $b = .093$ ,  $p = .002$ ), identity-based centers ( $b = .086$ ,  $p = .005$ ), and basic need services ( $b = .067$ ,  $p = .038$ ) were associated with an increase in positive academic engagement compared to those who did not use these resources. Finally, students who reported visiting the undocumented student services office reported higher positive academic engagement compared to those who never used this resource ( $b = .067$ ,  $p = .026$ ).

<INSERT TABLE 1 HERE>

### **Negative Academic Engagement**

The first model included the control variables, which accounted for approximately 3% of the variance ( $R^2_{adj} = .027$ ,  $F(7, 1093) = 5.419$ ,  $p < .001$ ). In this model, working 21 or more hours, compared to not working, was associated with a higher negative academic engagement ( $b = .133$ ,

$p < .001$ ). Students who were in their third year or more, compared to first- or second-year students, also reported a higher negative academic engagement ( $b = .081, p = .021$ ). UC students reported higher negative engagement scores compared to CSU students ( $b = .125, p < .001$ ). The second model added the legal vulnerability variables ( $R^2_{\text{adj}} = .060, F(11, 1089) = 7.355, p < .001$ ). The addition of the legal vulnerability variables accounted for 3.6% of the variance in the model ( $R^2$  change = .036,  $p < .001$ ). Working, years in school, and university system remained significant in the same direction. With respect to the legal vulnerability variables, students who were food insecure reported higher levels of negative academic engagement ( $b = .155, p < .001$ ). The third model added the campus climate variables. This model accounted for 8.1% of the variance ( $R^2_{\text{adj}} = .081, F(13, 1087) = 8.417, p < .001$ ;  $R^2$  change = .022,  $p < .001$ ). Working, university system, and food insecurity remained significant in the same direction. Years in school was no longer significant in this model ( $b = .066, p = .060$ ). From the campus climate variables, only negative attitudes towards immigrants was significant ( $b = .147, p < .001$ ). Students who reported higher levels of negative attitudes towards immigrants also reported higher levels of negative academic engagement. The final model added the resources use variables, this model accounted for 10.6% of the variance ( $R^2_{\text{adj}} = .106, F(21, 1079) = 7.210, p < .001$ ;  $R^2$  change = .032,  $p < .001$ ). Age became significant, with older students reporting lower negative academic engagement ( $b = -.070, p = .047$ ). Working ( $b = .128, p < .001$ ), university system ( $b = .064, p = .047$ ), food insecurity ( $b = .120, p < .001$ ), negative attitudes towards immigrants ( $b = .139, p < .001$ ) remained significant in the same direction. Several resource use variables were significant in the model. Students who used academic support services ( $b = -.064, p = .038$ ) and the career center ( $b = -.121, p < .001$ ) reported lower negative academic engagement compared to those who did not use these resources. Students who used the health center reported higher negative academic



engagement ( $b=.104, p=.001$ ) compared to those who did not use this resource. Students' use of undocumented student services was not significant in this model ( $b=.018, p=.555$ ).

<INSERT TABLE 2 HERE>

## **DISCUSSION AND IMPLICATIONS**

Student academic engagement is an important pathway for academic success and degree completion (Astin, 1984; Kuh, 2009; Tinto, 1993). Our study focused on behavioral engagement as an underexplored area in which undocumented immigration status may compromise students' college education. Prior research suggests that undocumented status can harm engagement by pulling attention away from their academics but can also motivate their participation in campus opportunities (Chavarria et al., this issue; Contreras, 2009; Terriquez, 2015). Thus, we differentiated between positive and negative behavioral engagement to capture each as a unique action, rather than the presence or absence of the same action. Specifically, we conceptualized positive academic engagement behaviors as active engagement in one's studies (e.g., studying with peers, communicating with the instructor) and negative behaviors as active disengagement (e.g., skipping class, going to class unprepared). Informed by a social ecological framework, this study aimed to examine factors that may compromise or promote undocumented students' academic engagement. Specifically, we examined how legal vulnerability, campus climate towards undocumented immigrants, and resource use are associated with positive and negative academic engagement among undocumented college students. Overall, our findings support and extend previous research as we find that some indicators of legal vulnerability, campus climate, and resource use are associated with academic engagement. These associations varied across the variables of interest and the outcome variables - positive or negative academic engagement.

### **Legal Vulnerability**

Legal vulnerability was assessed comprehensively to account for the complexity of status-related structural barriers faced by undocumented immigrants. The analysis accounted for immigration status (no legal status or liminal legal status), threat of deportation for self and parents, and food insecurity, as a proxy for financial insecurity. Our hypothesis was only partially supported with food insecurity being significantly associated with negative academic engagement. This suggests that legal vulnerability did not dissuade students' from positively engaging in their classes. Further, financial strain was the primary mechanism by which legal vulnerability was a barrier to negative academic engagement. This finding complements prior research that finds that food insecurity is linked to poor academic performance among college students (Raskind et al., 2019). Academic institutions should work to mitigate the threat of food insecurity by expanding their food pantry hours of operation, providing meals that are culturally inclusive, offering nutrition education, and helping students apply for public assistance programs. Given that undocumented students experience many financial barriers (Enriquez et al., 2019; Terriquez 2015), additional research is needed to examine other indicators of financial strain (e.g., housing insecurity, housing overcrowding, etc.) and the role they play in undocumented students' academic outcomes.

Given the employment authorization and protection from deportation afforded to DACA recipients, we expected students who did not have this protection would have less positive engagement and more negative engagement due to their structural vulnerability. However, we found that students with and without DACA were similarly engaged. This finding may be driven by California's integrative policy context, including the fact that undocumented students can access financial aid and resources, regardless of whether or not they have DACA. Furthermore, DACA's employment authorization could have incentivized students to work more (Amuedo-

Dorantes & Antman 2017; Hamilton et al., 2020; Hsin & Ortega, 2018), potentially counterbalancing its benefits. This finding may also be attributed to the historical moment in which the survey was conducted. Specifically, the DACA program was rescinded by former President Donald Trump in 2017 and the U.S. Supreme Court was weighing the legality of this action and determining the future of the program in the months we fielded the survey. Prior research has established that the rescission and subsequent political threats limited the protective effects of DACA and created new strains (Benuto et al, 2018; Mallet & Garcia Bedolla, 2019; Morales Hernandez & Enriquez, this issue). This suggests that liminal legal statuses like DACA are insufficient to promote recipient's integration and a path to citizenship will be critical to promote undocumented student's academic success and overall well-being.

Concerns about deportation, both oneself and parents/guardians, were not associated with students' engagement. One explanation may be that undocumented students in California are insulated from many of the deportation fears experienced in states with more exclusionary policy contexts (Ayón, 2018; Castañeda, 2019). Further, they occupy protective social locations, particularly as college students and 1.5-generation young adults, which they perceive as decreasing their chances of being targeted by police or immigration officials (Enriquez & Millán, 2021). Indeed, Californian undocumented college students report low levels of academic distractions due to their own or familial immigration status (Chavarria et al, this issue).

### **Campus Climate**

Next, we explored the association between campus climate and academic engagement. Campus climate was examined using a series of questions aimed at assessing students' perception of faculty, staff, peer, and community attitudes toward undocumented immigrants. Given the documented importance of an undocu-friendly campus (Muñoz & Vigil, 2018; Suárez-

Orozco et al., 2015), we expected that more positive campus attitudes towards immigrants would result in more positive academic engagement and less negative engagement, whereas more negative campus attitudes would result in more negative academic engagement and less positive engagement. Our hypothesis was partially supported. We found that positive campus attitudes towards immigrants were associated with an increased score in positive academic engagement, whereas perception of negative attitudes was associated with higher levels of negative academic engagement. These findings demonstrate the importance of distinguishing between positive and negative engagement. They also correlate with prior research, which finds that creating a more inclusive campus environment is associated with positive learning outcomes (Gurin et al., 2002) and that exclusionary campus environments can decrease engagement in campus life (Yosso et al., 2009). Our findings also indicate that inclusionary and exclusionary climates play unique roles in how they shape students' academic engagement. By using measures of pro- and anti-immigrant sentiment, we demonstrate that inclusionary and exclusionary campus climate provide distinct experiences with unique effects.

Campuses have created undocumented student services and deployed safe spaces and ally training to improve campus climates for undocumented students (Cadenas et al., 2018; Cisneros & Valdivia, 2020). Our findings suggest that fostering an inclusive climate is not sufficient and campuses must also work to eradicate exclusionary climates. To foster inclusive climates, campuses should invest in culturally competent and contextually informed trainings (i.e., increase awareness of local/statewide immigration policies) that can foster an inclusive environment in the classroom and across campus. To root out exclusionary climates, campuses and departments should investigate the use of anti-immigrant terminology and sentiment embedded in their discipline and the curriculum, including the use of dehumanizing terms (e.g.,

illegal, alien, etc.) to describe an undocumented person. Such efforts will have implications for students' academic engagement in the short term; and, in the long-term, inclusive environments allow students to develop skills that are transferable to working in a multicultural society (Pascarella & Terenzini, 2005). Given the intricacies in the construction of campus and institutional climate, it is critical to continue to assess multiple dimensions and dynamics of campus climate and the role they play in academic outcomes.

### **Use of Resources**

Campus resources are critical for aiding undocumented students in navigating obstacles (Cisneros & Valdivia, 2020; Enriquez et al., 2019). In this study, resource use was assessed comprehensively by accounting for campus wide resources such as academic counselors, academic support services, career center, identity-based centers, basic needs services (i.e., food pantry), and health centers, as well as undocumented student services which specifically meet the needs of immigration-impacted students. Consistent with our hypothesis, we found that use of undocumented student services was associated with higher positive academic engagement. These centers and services have personnel who are attuned to the challenges and needs of undocumented students and can assist with navigating institutional obstacles and creating opportunities for educational engagement (Cisneros & Reyna Rivarola, 2020; Cisneros & Valdivia, 2020). As college enrollment of undocumented students continues to grow, institutions must dedicate additional resources to expand undocumented student services.

We also found that use of an academic counselor, academic support services, identity-based centers and basic-needs services were associated with an increase in positive academic engagement. Furthermore, the use of academic support services and the career center were associated with lower negative academic engagement. These findings correlate with prior

research which finds that these institutional structures support students' success, learning, and engagement (Schwitzer et al., 2018; Tinto, 1993; Young-Jones et al., 2013). Importantly, Sarabia et al (this issue) find that exclusionary campus experiences are not necessarily preventing undocumented students from accessing campus-wide resources, rather campus integration substantially predicts undocumented students' use of academic support services. However, others have found that stigma, anti-immigrant sentiment, and/or microaggressions may prevent undocumented students from accessing resources (Cha et al, 2019; Pérez Huber, 2010). Given the benefits of resource use, future work should examine factors that may encourage or discourage undocumented student resource use. Campuses may promote resource use through collaborations between campus resources and undocumented student services; these may foster more inclusive environments, tailored services and outreach, and proactive addressing of challenges that negatively impact undocumented students' academic engagement.

### **Limitations**

Overall, our findings provide new insights into the relationship between individual and institutional level factors and academic engagement among a growing student population. However, there are limitations with the generalizability of this study. The study was cross-sectional, most of the participants identified as Latinx, and it was conducted in an inclusionary state and institutional context. Future research should focus on expanding recruitment efforts to include a wider representation of undocumented students across all racial and ethnic backgrounds. Additionally, future research should explore whether factors associated with academic outcomes vary across states, particularly those with restrictive and anti-immigrant policies. Despite its limitations, the findings from this study carry several practical implications focused on promoting practices that will enrich undocumented students' college experience.

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Table 1. Hierarchical Regression Analysis: Positive Engagement (N=1,101)

	Model 1		Model 2		Model 3		Model 4	
	B(S.E)	$\beta$	B(S.E)	$\beta$	B(S.E)	$\beta$	B(S.E)	$\beta$
Age	.072(.031)	.086**	.070(.031)	.084*	.077(.030)	.092*	.080(.029)	.095**
Latinx	.022(.321)	.002	.059(.324)	.006	-.153(.321)	-.015	-.520(.309)	-.049
<sup>1</sup> Gender	.165(.203)	.025	.165(.204)	.025	.140(.201)	.021	.216(.191)	.032
<sup>2</sup> Work (20 hrs or less)	.015(.199)	.002	.041(.203)	.007	-.010(.200)	-.002	-.185(.192)	-.030
<sup>2</sup> Work (21 hrs or more)	-.210(.226)	-.031	-.175(.229)	-.026	-.201(.225)	-.030	-.149(.214)	-.022
<sup>3</sup> Yrs in School	-.041(.217)	-.007	-.0098(.221)	-.002	-.037(.218)	-.006	-.040(.210)	-.006
<sup>4</sup> University System	-.307(.179)	-.055	-.320(.180)	-.057	-.233(.180)	-.042	-.229(.178)	-.041
<sup>5</sup> Immigration Status			-.176(.210)	-.027	-.232(.207)	-.036	-.068(.198)	-.011
Food insecure			.121(.176)	.021	.064(.175)	.011	-.138(.170)	-.024
Threat of deportation-self			.105(.223)	.018	.115(.219)	.020	.184(.208)	.032
Threat of deportation-parent			-.057(.216)	-.010	-.073(.215)	-.013	-.090(.204)	-.016
Campus Attitudes Positive					.169(.029)	.175***	.122(.028)	.127***
Campus Attitudes Negative					.085(.034)	.077*	.024(.034)	.022
Academic Counselor							.754(.229)	.096***
Academic Support Services							1.036(.175)	.179***
Career Center							.523(.171)	.093**
Identity Based Center							.493(.177)	.086**
Basic Needs							.377(.182)	.067*
Student Health Center							-.029(.179)	-.005
Menta Health Counseling							.119(.199)	.019
Undocumented Student Services							.402(.181)	.067*
Adjusted R <sup>2</sup>	.005		.003		.035		.132	
R <sup>2</sup> Change			.002		.034***		.102***	
F	1.824		1.314		4.100***		8.970***	

Note: <sup>1</sup>Women is the reference group; <sup>2</sup>Not working is the reference category; <sup>3</sup> 1-2 years is the reference category; <sup>4</sup>CSU is the reference category; <sup>5</sup>No legal status is the reference group; \*p <.05, \*\*p <.01, \*\*\* p≤.001

Table 2. Hierarchical Regression Analysis: Negative Engagement (N=1,101)

	Model 1		Model 2		Model 3		Model 4	
	B(S.E)	$\beta$	B(S.E)	$\beta$	B(S.E)	$\beta$	B(S.E)	$\beta$
Age	-.044(.024)	-.067	-.042(.024)	-.063	-.044(.024)	-.067	-.046(.023)	-.070*
Latinx	-.013(.251)	-.002	-.009(.249)	-.001	.047(.248)	.006	.099(.248)	.012
<sup>1</sup> Gender	.160(.159)	.030	.193(.157)	.036	.234(.155)	.044	.222(.154)	.042
<sup>2</sup> Work (20 hrs or less)	.301(.156)	.062	.278(.156)	.058	.266(.155)	.055	.259(.154)	.054
<sup>2</sup> Work (21 hrs or more)	.700(.177)	.133***	.717(.176)	.136***	.672(.174)	.127***	.675(.172)	.128***
<sup>3</sup> Yrs in School	.393(.170)	.081*	.360(.170)	.075*	.317(.168)	.066	.245(.169)	.051
<sup>4</sup> University System	.556(.140)	.125***	.545(.138)	.123***	.419(.139)	.094**	.284(.143)	.064*
<sup>5</sup> Immigration Status			-.007(.162)	-.001	.011(.160)	.002	.043(.159)	.008
Food insecure			.703(.135)	.155***	.587(.135)	.130***	.544(.137)	.120***
Threat of deportation-self			.223(.171)	.049	.206(.170)	.045	.199(.167)	.043
Threat of deportation-parent			.218(.166)	.049	.101(.166)	.023	.090(.164)	.020
Campus Attitudes Positive					-.038(.023)	-.050	-.030(.023)	-.040
Campus Attitudes Negative					.128(.027)	.147***	.122(.027)	.139***
Academic Counselor							-.149(.184)	-.024
Academic Support Services							-.291(.140)	-.064*
Career Center							-.542(.138)	-.121***
Identity Based Center							-.075(.142)	-.017
Basic Needs							.029(.146)	.007
Student Health Center							.469(.144)	.104***
Menta Health Counseling							.298(.159)	.059
Undocumented Student Services							.086(.145)	.018
Adjusted R <sup>2</sup>	.027***		.060		.081		.106	
R <sup>2</sup> Change			.036***		.022***		.032***	
F	5.419		7.355		8.417***		7.210***	

Note: <sup>1</sup>Women is the reference group; <sup>2</sup>Not working is the reference category; <sup>3</sup> 1-2 years is the reference category; <sup>4</sup>CSU is the reference category; <sup>5</sup>No legal status is the reference group; \*p <.05, \*\*p <.01, \*\*\* p<.001