What Helps Students Get Help?: An Exploratory Analysis of Factors that Shape Undocumented College Students' Use of Academic Support Services

Heidy Sarabia
heidy.sarabia@csus.edu

Laura E. Enriquez
laura.enriquez@uci.edu

Victoria E. Rodriguez
victorer@uci.edu

Laura Zaragoza
laurazzaragoza@gmail.com

Sonia Tinoco
stinoco012@gmail.com

Abstract: Academic support services are an important institutional resource that can support student success and retention. However, little research has examined undocumented students' resource uptake, aside from demonstrating that exclusionary policies and experiences reduce undocumented students' access to and use of institutional resources. In this article, we use regression analysis to identify what factors may contribute to undocumented students' use of academic support services. Drawing on a survey of 1,277 undocumented students attending California 4-year public universities, we examine how academic performance, situational barriers, campus exclusion, and campus integration shape the odds that undocumented students will use academic support services. We find that campus integration is associated with increased odds of using academic support services, while campus exclusion is not; academic performance and situational barriers have mixed effects.

Keywords: undocumented students, academic support, campus resources, situational barriers, campus integration

Cite as: Sarabia, Heidy, Laura E. Enriquez, Victoria E. Rodriguez,[*] Laura Zaragoza, and Sonia Tinoco. 2021. "What Helps Students Get Help?: An Exploratory Analysis of Factors that Shape Undocumented College Students' Use of Academic Support Services." *Journal of Latinos and Education* **20(3): 290-303.**

An official version of this paper is available at: https://doi.org/10.1080/15348431.2021.1949994

Undocumented college students face unique structural barriers in higher education, including financial strains, deportation concerns, immigration-related distractions, and exclusionary campus contexts that can compromise their academic engagement, performance, and retention (Chavarria et al; this issue; Enriquez et al, 2019b; Suárez-Orozco et al., 2015; Terriquez, 2015; Valadez et al, this issue). Indeed, research finds that undocumented students do not experience the same educational growth as their lawfully-present peers (Kreisberg & Hsin 2020). However, institutional resources are key to helping students overcome obstacles and achieve academic success (Romo et al., 2019). Yet, undocumented students report being denied access to resources; a 2016 survey found that about a third of undocumented students surveyed at the University of California reported being denied access to a campus resource or program due to their undocumented status (Enriquez et al., 2019a). Further, students may contend with anti-immigrant sentiment and/or microaggressions, raising concerns about being stigmatized when attempting to gain access to resources (Cha et al., 2019; Perez Huber, 2010). Additional research is needed to understand what factors may affect undocumented students' uptake of campus resources.

We focus on undocumented students' use of academic support services because these have been shown to be key resources for supporting student retention (Grillo & Leist, 2013; Gansemer-Topf & Schuh, 2003). Academic support, such as supplemental instruction, can facilitate learning and promote academic success among students (Channing & Okada, 2019; Rios-Ellis et al., 2015). These services can be especially beneficial for first-generation college students and underrepresented minorities who have accumulated disadvantages in the educational pipeline (Colver & Fry, 2016; Made et al., 2019; Tienda & Mitchell, 2006).

In this paper, we explore how undocumented students' individual and situational strains, as well as experiences of campus exclusion and integration, shape their use of academic support services. Given the substantial individual and structural barriers that may prevent students from ever accessing campus resources, we focus on whether they have ever used academic support services such as the writing or tutoring center. We conduct multivariate logistic regression analysis of a survey of 1,277 undocumented college students attending California 4-year public universities to assess the effects of academic performance, situational barriers, campus exclusion, and campus integration. We found that academic performance and situational barriers have mixed effects on use. Most notably, campus integration is associated with increased odds of using academic support services, while campus exclusion is not.

Literature Review

Educational access policies have paved the way for undocumented students to access higher education in California. Assembly Bill 540 made it possible for undocumented students to pay in-state tuition rates at public higher education institutions. Assembly Bill 131, part of the California Dream Act, provided access to state-funded financial aid. Both policies made higher education much more affordable for undocumented students. More recent legislative efforts have created loan programs and mandated each campus' development of a liaison who can facilitate undocumented students' access to support and resources. Such policies have facilitated undocumented students' access to higher education (Flores 2010; Raza et al., 2019).

Undocumented students, however, continue to lag behind their peers academically, highlighting the hurdles that remain for their retention and academic success. When compared to their U.S.-citizens peers, undocumented students in California tend to have higher rates of low GPA (Enriquez et al., 2021), stop out at disproportionately high rates (Terriquez, 2015), and are

less likely to graduate (Conger & Chellman, 2013). In addition, while undocumented college students are hyper-selected, as indicated by having higher high school GPAs then their peers, their college performance tends to flatten in college (Hsin & Reed, 2020). This suggests that the challenges of being an undocumented student contribute to academic underperformance.

Academic support services can help students successfully navigate and excel in higher education. For example, research has shown that supplemental instruction programs, one type of academic support service, can increase academic performance and retention by helping students develop academic skills, yielding increased retention and increasing the probability of timely graduation (Bowles et al., 2008; Ogden et al., 2003; Skoglund et al., 2018). Supplemental instruction can also help reduce the performance gap between underrepresented minority, first-generation, and low-income students and their more advantaged peers (McGuire, 2006; Yue et al., 2018). This research suggests that undocumented students, who occupy many of these intersectional identities, would likely benefit from the use of academic support services which could provide remediation, foster the development of study skills, and promote positive academic orientations. This paper builds on this prior research to examine four potential factors that may promote or discourage undocumented students' use of academic support services: academic performance, situational barriers, campus exclusion, and campus integration.

Academic Performance

Academic performance is a cumulative process with individual assignment grades informing a course grade, which subsequently informs GPA and degree conferral. Intervention programs and academic support services aim to disrupt poor performance along this pathway by providing remediation and additional support. Indeed, intervention after assignment failure has been shown to help college students develop self-efficacy and support their retention (Chandler

& Potter, 2012). However, low academic performance may be insufficient to encourage students to use such services. For example, Ciscell and colleagues (2016) find that perceived stigma prevents students who have been informed of their poor academic performance from using peer tutoring services. Additional factors include personal obstacles, lack of knowledge about services, the availability of other options, and systemic obstacles. This resonates with other research that finds that 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 (Cha et al., 2019; El Zein et al., 2018; Marshak et al., 2010).

Situational Barriers

External strains and commitments, also known as situational barriers (Mercer, 1993), can compromise undocumented students' ability to access campus resources. Past research has shown that financial strains, such as having family financial obligations, paying for housing expenses, and rising tuition costs, can negatively affect students' educational outcomes (Terriquez & Gurantz, 2015). Financial strains can also limit students' integration into campus life (Martinez et al., 2009), and low-income students are less likely to use services that support their success in college (Engle & Tinto, 2008). Additionally, working and lack of time have also been cited as common barriers that prevent students from accessing tutoring services (Ciscell et.al, 2016). These issues are likely compounded for undocumented students whose families tend to be low-income (Conger & Chellman, 2013; Suárez-Orozco et al., 2015). Indeed, undocumented students report financial strains that create high work demands, compromising their academic performance and retention (Enriquez et al., 2019b; Terriquez, 2015). They may also commute from home to save on housing costs, limiting the time they have available when on campus (Raza et al., 2019).

Campus Exclusion

An exclusionary campus climate may also shape undocumented students' willingness to access campus resources. Campus policies may neglect to recognize the full extent to which undocumented students experience legal vulnerability, contributing to invisibilization and institutional neglect (Gildersleeve et al., 2010). In some cases, a lack of awareness can result in the inadequate provision of campus services (Contreras, 2009; Nienhauser, 2013). Indeed, undocumented students report difficulties accessing resources, including receiving incorrect information, having to educate staff members about their eligibility, and being denied access to opportunities because of their immigration status (Enriquez et al., 2019a). Students may also encounter racist-nativist microaggressions, anti-immigrant sentiment, or explicitly hostile environments (Muñoz & Vigil, 2018; Shelton, 2019; Suárez-Orozco et al., 2015). Such experiences may be stigmatizing and contribute to social-emotional barriers to support seeking (Muñoz, 2016; Pérez Huber, 2010; Yasuike, 2019). Ultimately, exclusionary campus experiences may prevent undocumented students from accessing academic support services.

Campus Integration

On the other hand, student integration is directly linked to student success and retention (Tinto, 1987). A sense of belonging is fostered through their interactions with students, faculty, staff, and administrators on campus and the feelings those interactions convey; these feelings can encourage persistence and participation in activities that facilitate success (Hausmann et al. 2007; Hurtado & Ponjuan, 2005; Tinto, 2017). For undocumented students, an undocu-friendly campus that provides undocumented student services can help foster belonging and encourage enrollment and retention of undocumented students (Enriquez, et al., 2019b; Southern, 2016; Suarez-Orozco et al., 2015). Campuses, especially public universities in California where this

study took place, are making strides to integrate undocumented students through dedicated undocumented student services and resource centers, which may facilitate their awareness of and willingness to access campus-wide resources (Cisneros & Valdivia, 2020; Sanchez & So, 2015). Additionally, engaging with faculty outside of the classroom often leads to referrals to academic support services, such as tutoring or writing centers (Means & Pyne, 2017). Faculty relationships are critically important for undocumented students who need additional help learning how to navigate institutions not built to meet their needs (Chen & Rhoads, 2016; Suarez-Orozco & Hernandez, 2020). Further, peer social networks are an important source of information for undocumented students and can facilitate their incorporation (Borjian, 2018; Contreras, 2009; Enriquez, 2011; Muñoz, 2016; Pérez et al., 2010; Pérez Huber & Malagon, 2007; Suárez-Orozco et al., 2015). Finally, resource-use snowballs, so that accessing one resource may facilitate access to other resources (Contreras, 2009; Gonzales et al., 2013; Pérez et al., 2010). Ultimately, campus integration may facilitate undocumented students use of academic support services.

Methods

This study uses survey data collected from March to June 2020 with 1,277 undocumented undergraduate students attending 4-year public universities in California. The survey includes data about educational experiences, resource use, institutional context, and self and family demographics. All project activities were approved by the University of California, Irvine IRB.

Procedures

Participants were recruited at nine University of California (UC) undergraduate campuses and nine California State University (CSU) campuses. Eligibility criteria included being over age 18, current enrollment as an undergraduate student, and self-identifying as having no permanent legal status (e.g., no legal status, DACA, or a liminal legal status). 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. The survey was administered via Qualtrics with an estimated completion

time of 25–35 minutes. Respondents received $10 electronic gift card compensation. We used

list-wise deletion to identify our analytical sample (n=1,131).

Measures

Dependent Variables

Our dependent variable is *used academic support services*. Students were asked how

frequently they visited several offices during the current academic year, including "academic

support services (e.g., writing center, EOP, tutoring center)." Responses were dichotomized into

using "a few times a year" or more, and are compared to "never" using. Those who believed this

resource did not exist on their campus were categorized as never using.

Independent Variables

We examine four groups of independent variables to explore the factors that shape use of

academic resources: academic performance, situational barriers, campus exclusion, and campus

integration. The first block examines three measures that represent a range of poor academic

performance and might indicate a need for support. For *failed to turn in assignment*, respondents

were asked how frequently this happened during the current academic year. We collapsed

categories so that those who said "sometimes" and "often" or "rarely" are compared to those

who said "never." For *failed a course,* respondents reported if this had happened at their current

campus. Those who said "yes" are compared to those who said "no." For *GPA*, respondents

reported their overall GPA at their current campus. Response categories were in 0.25 increments.

We collapsed categories to compare a reference category of 3.0 or above to those who reported 0.00-2.49 and those who reported 2.5-2.99.

The second block includes three measures of situational barriers that might restrict students' ability to access services. For students' own *financial strain*, respondents indicated how often they had experienced the following during the current academic year: "worried about not having enough money to pay for things," "had difficulty paying bills," "had to go without the basic things that you need," and "had to go without the materials needed for your studies." Responses included "almost never" or "never" (0), "once in a while" (1), "sometimes" (2), "a lot of the time" (3), and "almost always or always" (4). We computed the mean score with values ranging from 0 (low strain) to 4 (high strain). For *working*, respondents reported how many hours they work. We collapsed categories to compare a reference category of not working to those who reported working 1-20 hours a week and those who reported 21 or more hours a week. For *commute time*, respondents reported how long it takes them to get to campus on a typical school day. Those we reported 30 minutes or more are compared to those who reported 30 minutes or less.

The third block includes five measures of campus exclusion that could discourage service use. For *denied access to a resource* and *received incorrect information*, respondents were asked if they had experienced the following during the current academic year: "been denied access to a campus resource or program because of your immigration status," and "been given inaccurate or incorrect information about how to complete a university procedure because the staff person didn't know the correct procedures for someone with your immigration status." Those who reported "yes, 1-3 times" and "yes, more than 3 times" were combined and are compared to those who said "no." For *difficult to get an answer*, respondents rated the extent they agreed with

two statements: "It takes a lot of time to get an answer about something related to being an undocumented student," and "It is stressful to get an answer about something related to being an undocumented student." Response categories ranged from "strongly disagree" (1) to "strongly agree" (5). We computed the mean score and dichotomized it so values of 4 or higher are considered having a difficult time getting an answer. For *negative sentiment from staff* and *negative sentiment from students*, respondents indicated how often they heard each group "express negative feelings about undocumented immigrant communities." Responses included "never" (0), "rarely" (1), "sometimes" (2), and "often" (3).

The fourth block includes four measures of campus integration that could encourage service use. We use two items to measure interpersonal relationships: *studied with classmates* and *communicated with instructor*. Respondents were asked how frequently they "studied with a group of classmates outside of class" and "communicated with the instructor outside of class about issues and concepts derived from a course" during the current academic year. Responses included "never" (0), "rarely" (1), "sometimes" (2), and "often" (3). For *use of other campus resources*, respondents indicated how frequently they had visited the following offices during the current academic year: identity-based center, basic needs/food pantry, student health center, or mental health counseling center. They also indicated whether they had "ever been to an office or met with a staff person at [campus] who focuses on supporting undocumented students and/or students who undocumented family members." Responses were dummy coded as having visited (1) and not visited (0); these were added to obtain a score of 0 (used no resources) to 5 (used all five resources). For *sense of belonging*, respondents were asked the extent to which they agreed with four statements: "I feel a sense of belonging in this university," "I see myself as part of the university community," "I am enthusiastic about this university," and "I can present my whole,

authentic self on campus without worrying about repercussions." Response categories ranged from "strongly disagree" (1) to "strongly agree" (5). We computed the mean score with values ranging from (1) low sense of belonging to (5) high sense of belonging.

All models controlled for demographic covariates. For *immigration status*, respondents identified their current legal status. DACA beneficiaries are compared to those with no legal status. For *gender*, female/women are compared to male/men. Respondents who identified other immigration status or genders were excluded from the sample due to small numbers. For *Latina/o/x*, respondents could select as many races/ethnicities that applied, one of which being "Latina, Latino, Latinx, or Hispanic." Those who selected this option are compared to those who did not. *Age* at time of the survey was measured continuously. For *year in school*, respondents identified their year in school. Respondents who reported 3rd, 4th, or 5th+ year are compared to those who reported 1st and 2nd year. *University system* was a dichotomous variable comparing CSUs and UCs.

Analysis

We ran descriptive statistics to characterize our study sample of undocumented students. Next, we conducted a series of logistic regression models to see how academic performance, situational barriers, campus exclusion, and campus integration shape the odds of using academic support services on campus. The first four models are each dedicated to a single block of variables, while controlling for demographic covariates. The fifth model included all variable blocks and demographic covariates. Given our rate of missing data, we conducted a sensitivity check by estimating each individual model with all available data with similar results. All analyses were conducted using Stata 16.

Findings

Descriptive Results

Table 1 provides the descriptive statistics of our sample. Within our sample, the mean age was 21.8 and the majority self-identified as women (76.6%), Latino/a/x race/ethnicity (92.2%), having DACA (75.4%), and being in the UC system (52.6%). The highest proportion of students were in their 3rd year or higher (70.5%). Students in our sample were more likely to have a GPA between 3.0-4.0, followed by 2.5-2.99 and 0.0-2.49 (65.3%, 24.0%, and 10.8% respectively), with the majority reporting never having failed a course (57.8%). Most students reported either not working or working part time, between 1-20 hours (45.6% and 31% respectively). Most students in our sample reported the equivalent of experiencing financial strain "sometimes" (mean=1.9). A smaller proportion of students reported ever being denied access to a resource because of their immigration status (27.9%), ever receiving incorrect information about how to complete a university procedure (44.1%), and it being difficult to get an answer about something related to being an undocumented student (42.7%). Most students reported the equivalent of "never" or "rarely" hearing negative sentiment about undocumented immigrant communities from staff (mean=0.4) and other students (mean=1.0). The average student reported studying with their classmates between "rarely" and "sometimes" (mean=1.6) and "sometimes" communicating with their instructor outside of class about issues and concepts (mean=2.0). They also reported a middling sense of belonging to their university (mean=3.7). Use of other campus resources was high as students reported using an average of 2.5 resources, and more than half of students (62.4%) reported ever using academic support services, our dependent variable.

Regression Results

The binary logistic regression analysis identified factors associated with use of academic support services among undocumented students (see Table 2). In our first model, we focused on

academic performance and controlled for individual demographic characteristics. Students who failed a course had higher odds of using academic support services (Model 1; OR=1.56, 95%CI 1.15-2.10). Students with a very low GPA (0.0-2.49) had substantially lower odds of using academic support services (Model 1; OR=0.55, 95%CI 0.36-0.86) compared to students with a GPA of 3.0 or above.

Model 2 looked at situational barriers and controlled for individual characteristics. Students who reported higher financial strain had higher odds of using academic support services (Model 2; OR=1.13, 95%CI 1.01-1.27) compared to those with low financial strain. Those working 1-20 hours had higher odds of using academic support services compared to those who were not working (Model 2; OR=1.58, 95%CI 1.17-2.14). We did not observe any significant differences for those working 21+ hours.

Models 3 and 4 looked at the role of campus experiences, while controlling for individual characteristics. Model 3 examined factors relating to campus exclusion; notably, we did not observe any significant findings within this model. Model 4 focused on factors relating to campus integration. Higher odds of using academic support services was observed among students who reported studying more frequently with classmates outside of class (Model 4; OR=1.28, 95%CI 1.13-1.46) and students who reported communicating more frequently with the instructor outside of class (Model 4; OR=1.21, 95%CI 1.06-1.39). Lastly, we saw that for every additional campus resource used, the odds of using academic support services increased by 1.30 (Model 4; 95%CI 1.18-1.42).

Model 5 in our logistic regression analysis included academic performance, situational barriers, campus exclusion, and campus integration, as well as individual characteristics as controls. We observed similar patterns from our previous models with GPA and financial strain

losing significance. Students who failed a course had higher odds of using academic support services (Model 5; OR=1.44, 95% CI 1.05-1.97); here the odds slightly decreased compared to Model 1. Students who reported working 1-20 hours had higher odds of using academic support services (Model 5; OR=1.48, 95%CI 1.08-2.03) compared to those who were not working; the odds slightly decreased compared to Model 2. We continued to see no significant findings for factors within campus exclusion. We observed the same significance patterns for the factors within campus integration: studied with classmates outside of class (Model 5; OR=1.27, 95%CI 1.11-1.45), communicated with instructor outside of class (Model 5; OR=1.24, 95%CI 1.08-1.43), and use of other campus resources (Model 5; OR=1.25, 95%CI 1.13-1.38). Lastly, within our covariates we observed that DACA recipients (Model 5; OR=0.71, 95% CI 0.51-0.98), students in their 3rd year or higher (Model 5; OR=0.47, 95% CI 0.33-0.66), and UC students (Model 5; OR=0.59, 95% CI 0.43-0.79) had lower odds of using academic support services while Latino/a/x students (Model 5; OR=1.70, 95% CI 1.05-2.75) had higher odds of using academic support services.

Discussion

Poor academic performance does not substantially predict undocumented students' use of academic support services. While failing a course was consistently associated with higher odds of using academic support services, having a GPA under 2.5 was no longer associated with lower odds of using these services in the full model. Given that poor study skills are linked to poor academic performance and failure (Sayer et al., 2002), students who have failed a course may seek tutoring or other support in order to pass or remediate the course successfully. Hence, failing a course, or anticipating course failure, may be enough of a sign to signal to students that they need support, whereas failing to turn in an assignment is insufficient. Further, some research

suggests that GPA and student engagement is highly related (Kuh et al., 2008); therefore, having a very low GPA, might signal more serious and chronic academic struggles that also prevent students from accessing the services that might help them overcome these academic challenges.

Situational barriers, such as time conflicts with academic scheduling, work, and other responsibilities, have been shown to prevent non-traditional students from accessing services on campus (Mecer, 1993). Previous studies suggest that undocumented students' high financial need forces them to work, limiting their time for studying or accessing university services and opportunities (Enriquez et al., 2019b; Terriquez, 2015). We find limited evidence of situational barriers and identify heterogeneity in how working is associated with service use. Specifically, we find that working 1-20 hours a week, compared to not working, was associated with higher odds of using academic support services. This finding demonstrates the heterogeneity of undocumented students' employment, especially now that they have access to state and institutional need-based financial aid in California. Thus, working does not appear to be a uniform situational barrier. Given the lack of significant differences between students who were not working and those who worked more than 20 hours a week, it may be that students who are working part-time have structural and social supports in place that allow them to achieve a balanced college experience.

Notably, campus exclusion does not seem to affect the use of academic support services. None of the variables used to measure campus exclusion were significantly associated with the use of academic support services. Our measures assessed prior exclusionary experiences when accessing resources such as being denied resources or receiving incorrect information -- as well as anti-immigrant sentiment from staff and peers. Our descriptive results show that these exclusionary experiences do in fact transpire, reflecting prior research that has documented these

experiences (Muñoz & Vigil, 2018; Shelton, 2020; Suárez-Orozco et al., 2015). However, our findings suggest that these experiences are not necessarily preventing undocumented students from accessing academic support services. This may be because the CSU and the UC campuses systems that we draw our sample from have sought to develop inclusive environments that provide undocumented students with equitable access to campus services. As a result of these changes, undocumented students continue to experience some exclusion, but these are counterbalanced by the availability of spaces of belonging (Golash-Boza & Valadez, 2018). In these contexts, academic support services may be readily available to all registered students, neither incentivizing or preventing undocumented students from accessing them. Yet, we find that students in the UC system had lower odds of using academic support services. This is surprising given that the UC system is better resourced (Fabricant & Brier, 2016) but may reflect the fact that CSUs are less-selective, yielding students who may need more academic support. Additionally, the CSUs are teaching centered and may be fostering a culture of academic support service use. Additional research is needed to further examine what campus factors are driving variation by system.

Importantly, campus integration substantially predicts the use of academic support services. Scholars have consistently found that student integration and sense of belonging is directly linked to student success and retention (Tinto, 1987, 2017) and have highlighted the importance of social capital in the utilization of campus resources (Glass & Gesing, 2018; Means & Pyne, 2017). Similarly, we found that studying with peers and communicating with instructors more frequently increased the odds of using academic support services. Previous research pointed to the importance of strong peer networks and guidance from caring adults as key factors that facilitate undocumented students' transition from high school to college (Enriquez, 2011;

Hernandez et al., 2010; Ibarra, 2013; Nienhusser, 2013; Silver, 2012). Our study suggests that peers and faculty relationships continue to play a key role in guiding undocumented students in college. In addition, our research shows that the use of other campus resources increased the odds of using academic support services. This suggests that using other programs and resources might be particularly helpful in creating bridges and forms of support that help students learn how to navigate higher education successfully.

Limitations and Future Research

Our survey used a cross-sectional design and is unable to identify causal relationships. Future research should develop longitudinal data to investigate the long-term effects of campus integration on undocumented students' resource use and determine if these actions improve their academic outcomes. Qualitative studies should also explore the processes and mechanisms that shape students' decisions to use academic support services, and how campus integration motivates, facilitates, and encourages such resource use. In addition, more research is needed to explain how resource use shapes educational outcomes such as retention, graduation, and post-college preparation. Second, our study took place in California universities where state and institutional policies and practices support undocumented students' access to higher education; they offer some of the most inclusive contexts in the country. This may have weakened the potential effects of exclusionary experiences. Third, we focus on only one type of campus resource that is made broadly available to students. Future research should also examine if these trends are consistent for other types of campus resources and services.

Conclusion

Overall, this paper advances our understanding of undocumented students' resource uptake. Building on prior research that has documented barriers and sources of exclusion

(Enriquez et al., 2019b; Macias, 2018; Serna et al. 2017; Murillo 2017), we take a step back to examine both straining and supportive factors that may affect students' use of academic support services. Doing so allows us to develop a more holistic approach to understanding how to best support students' academic success. While exclusionary campus experiences are consequential to undocumented students' overall educational experiences, we do not find them to be associated with reduced use of academic support services. However, we do find that campus inclusion plays an important role in this process as various forms of social and structural integration foster the use of academic support services. This demonstrates the continued power of student integration in advancing the educational success of marginalized college students, including undocumented students.

Absent of a path to citizenship, undocumented students will continue to experience what Negrón-Gonzales (2017) calls "constrained inclusion," in which immigration status continues to challenge the educational experiences of undocumented students. However, universities can intervene to lower the consequences of undocumented status while students are enrolled (Enriquez et.al. 2019b). Indeed, our study suggests that inclusive campus environments, particularly in the form of faculty, staff, and peer interactions, are key to facilitating students' use of academic support services. Faculty should identify ways to further promote the use of campus resources, such as by identifying resources on their syllabi and course websites, offering extra credit to students who access services, and actively referring specific students who are struggling. Staff should seek to understand underlying constraints, such as financial strain, and be prepared to refer students to other resources. Campus programs should build partnerships with students to make them ambassadors; given the importance of peer networks, students could aid with effectively advertising the availability of academic resources.

References

Borjian, A. (2018). Academically successful Latino undocumented students in college:

    Resilience and civic engagement. *Hispanic Journal of Behavioral Sciences*, *40*(1), 22-36.

Bowles, T. J., McCoy, A. C., & Bates, S. C. (2008). The effect of supplemental instruction on

    timely graduation. *College Student Journal*, *42*(30), 853.

Cha, B. S., Enriquez, L. E., & Ro, A. (2019). Beyond access: Psychosocial barriers to

    undocumented students' use of mental health services. *Social Science & Medicine*, *233*,

    193-200.

Chandler, L., & Potter, A. (2012). Failure as Opportunity-reflection and Retention: Approaches

    to Supporting First Year University Students Experiencing Early Assessment Failure.

    International Journal of Learning, *18*(7).

Channing, J., & Okada, N. C. (2019). Supplemental instruction and embedded tutoring program

    assessment: Problems and opportunities. *Community College Journal of Research and*

    Practice.

Chavarria, K., Cornejo, M., Ayón, C, & Enriquez, L.E. (this issue). "Disrupted Education?: A

    Latent Profile Analysis of Immigration-Related Distractions and Academic Engagement

    among Undocumented College Students." *Journal of Latinos and Education*.

Chen, A. C.-R., & Rhoads, R. A. (2016). Undocumented Student Allies and Transformative

    Resistance: An Ethnographic Case Study. *The Review of Higher Education*, *39*(4), 515-

    542.

Ciscell, G., Foley, L., Luther, K., Howe, R., & Gjsedal, T. (2016). Barriers to Accessing

    Tutoring Services among Students Who Received a Mid-Semester Warning. *Learning*

    Assistance Review, *21*(2), 39-54.

Cisneros, J., & Valdivia, D. (2020). " We Are Legit Now": Establishing Undocumented Student Resource Centers on Campus. *Journal of College Student Development, 61*(1), 51-66.

Colver, M., & Fry, T. (2016). Evidence to support peer tutoring programs at the undergraduate level. *Journal of College Reading and Learning*, *46*(1), 16-41.

Conger, D., & Chellman, C. C. (2013). Undocumented college students in the United States: In-state tuition not enough to ensure four-year degree completion. *Education Finance and Policy*, *8*(3), 364-377.

Contreras, F. (2009). Sin papeles y rompiendo barreras: Latino students and the challenges of persisting in college. Harvard Educational Review, 79, 610–632.

El Zein, A., Mathews, A. E., House, L., & Shelnutt, K. P. (2018). Why are hungry college students not seeking help? Predictors of and barriers to using an on-campus food pantry. *Nutrients*, *10*(9), 1163.

Engle, J., & Tinto, V. (2008). Moving beyond access: College for low- income, first-generation students. Washington, DC: The Pell Institute. Retrieved May 11, 2011, from http://www.pellinstitute.org/files/COE MovingBeyondReport Final.pdf.

Enriquez, L. (2011). " Because we feel the pressure and we also feel the support": Examining the educational success of undocumented immigrant Latina/o students. *Harvard Educational Review*, *81*(3), 476-500.

Enriquez, L. E., Burciaga, E. M., Cardenas, T., Cha, B., Delgado, V., Lopez, M. G., ... & Vera, D. V. (2019a). How Can Universities Foster Educational Equity for Undocumented College Students: Lessons from the University of California.

Enriquez, L. E., Morales Hernandez, M., Millán, D., & Vera, D. V. (2019b). Mediating illegality: Federal, state, and institutional policies in the educational experiences of undocumented college students. *Law & Social Inquiry*, *44*(3), 679-703.

Enriquez, L.E., Ayon, C. Najera, J, Ro, A, & Valdez, Z. (2021). Advancing Equity for Undocumented Students and Students from Mixed-Status Families at the University of California. UC PromISE.

Fabricant, M., & Brier, S. (2016). *Austerity blues: Fighting for the soul of public higher education*. JHU Press.

Flores, S. M. (2010). State dream acts: The effect of in-state resident tuition policies and undocumented Latino students. *The Review of Higher Education*, *33*(2), 239-283.

Gansemer-Topf, A. M., & Schuh, J. H. (2003). Instruction and academic support expenditures: An investment in retention and graduation. *Journal of College Student Retention: Research, Theory & Practice*, *5*(2), 135-145.

Gildersleeve, R. E., Rumann, C., & Mondragón, R. (2010). Serving undocumented students: Current law and policy. *New Directions for Student Services*, *2010*(131), 5-18.

Glass, C. R., & Gesing, P. (2018). The development of social capital through international students' involvement in campus organizations. *Journal of International Students*, *8*(3), 1274-1292.

Golash-Boza, T., & Valdez, Z. (2018). Nested contexts of reception: Undocumented students at the University of California, Central. *Sociological Perspectives*, *61*(4), 535-552.

Gonzales, R. G., Suárez-Orozco, C., & Dedios-Sanguineti, M. C. (2013). No place to belong: Contextualizing concepts of mental health among undocumented immigrant youth in the United States. *American behavioral scientist*, *57*(8), 1174-1199.

Grillo, M. C., & Leist, C. W. (2013). Academic support as a predictor of retention to graduation: New insights on the role of tutoring, learning assistance, and supplemental instruction. *Journal of College Student Retention: Research, Theory & Practice*, *15*(3), 387-408.

Hausmann, L., Schofield, J., Woods, R. (2007) Sense of belonging as a predictor of intentions to persist among African American and white first year college students. Research in Higher Education 48(7): 803–839.

Hurtado, S., Ponjuan, L. (2005) Latino educational outcomes and the campus climate. Journal of Hispanic Higher Education 4(3): 235–251

Hernandez, S., Hernandez, I., Gadson, R., Huftalin, D., Ortiz, A. M., White, M. C., & Yocum-Gaffney, D. (2010). Sharing their secrets: Undocumented students' personal stories of fear, drive, and survival. New Directions for Student Services, 131, 67–84.

Hsin, A., & Ortega, F. (2018). The effects of deferred action for childhood arrivals on the educational outcomes of undocumented students. *Demography*, *55*(4), 1487-1506.

Hsin, A., & Reed, H. E. (2020). The Academic Performance of Undocumented Students in Higher Education in the United States. *International Migration Review*, *54*(1), 289-315.

Ibarra, H. (2013). Facing the giant: Higher education access and financial assistance for undocumented students in Texas. International Journal of Leadership in Education, 16, 435–453.

Kreisberg, A. N., & Hsin, A. (2020). The higher educational trajectories of undocumented youth in New York City. *Journal of Ethnic and Migration Studies*, 1-24.

Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The journal of higher education*, *79*(5), 540-563.

Macías, L. F. (2018). The scheme game: How DACA recipients navigate barriers to

    higher education. *Educational Studies*, *54*(6), 609-628.

Made, A. F., Hasan, A., Burgess, S., Tuttle, D., & Soetaert, N. (2019). The effect of peer tutoring

    in reducing achievement gaps: a success story. *Journal of Computing Sciences in*

    Colleges, *35*(1), 57-65.

Martinez, J. A., Sher, K. J., Krull, J. L., & Wood, P. K. (2009). Blue-collar scholars?: Mediators

    and moderators of university attrition in first-generation college students. *Journal of*

    college student development, *50*(1), 87.

Marshak, L., Van Wieren, T., Ferrell, D. R., Swiss, L., & Dugan, C. (2010). Exploring barriers to

    college student use of disability services and accommodations. *Journal of Postsecondary*

    Education and disability, *22*(3), 151-165.

McGuire, S. Y. (2006). The impact of supplemental instruction on teaching students how to

    learn. *New Directions for Teaching and Learning*, *2006*(106), 3-10.

McWhirter, E. H., Ramos, K., & Medina, C. (2013). ¿Y ahora qué? Anticipated immigration

    status barriers and Latina/o high school students' future expectations. Cultural Diversity

    and Ethnic Minority Psychology, 19, 288–297.

Means, D. R., & Pyne, K. B. (2017). Finding my way: Perceptions of institutional support and

    belonging in low-income, first-generation, first-year college students. *Journal of College*

    Student Development, 58(6), 907-924.

Mercer, D. (1993) Older coeds: predicting who will stay this time. Journal of Research and

    Development in Education, 26, 153-163.

Muñoz, S. M. (2016). Undocumented and unafraid: Understanding the disclosure management process for undocumented college students and graduates. Journal of College Student Development, 57, 715–729.

Muñoz, S. M., & Vigil, D. (2018). Interrogating racist nativist microaggressions and campus climate: How undocumented and DACA college students experience institutional legal violence in Colorado. *Journal of Diversity in Higher Education*, *11*(4), 451.

Murillo, M. A. (2017). Undocumented and college-bound: A case study of the supports and barriers high school students encounter in accessing higher education. *Urban Education*, 0042085917702200.

Negrón-Gonzales, G. (2017). Constrained inclusion: Access and persistence among undocumented community college students in California's central valley. *Journal of Hispanic Higher Education*, *16*(2), 105-122.

Nienhusser, H. K. (2013). Role of high schools in undocumented students' college choice. Education Policy Analysis Archives/Archivos Analíticos de Políticas Educativas, 21(85). Retrieved from https://files.eric.ed.gov/fulltext/EJ1019099.pdf

Ogden, P., Thompson, D., Russell, A., & Simons, C. (2003). Supplemental instruction: Short-and long-term impact. *Journal of Developmental Education*, *26*(3), 2.

Pérez, W., Cortés, R. D., Ramos, K., & Coronado, H. (2010). "Cursed and blessed": Examining the socioemotional and academic experiences of undocumented Latina and Latino college students. New Directions for Student Services, 131, 35–51.

Pérez Huber, L., & Malagon, M. C. (2007). Silenced struggles: The experiences of Latina and Latino undocumented college students in California. Nevada Law Journal, 7, 841–861.

Pérez Huber, L. (2010). Using Latina/o Critical Race Theory (LatCrit) and Racist Nativism to Explore Intersectionality in the Educational Experiences of Undocumented Chicana College Students. *Educational Foundations*, *24*, 77-96.

Raza, S. S., Williams, Z., Katsiaficas, D., & Saravia, L. A. (2019). Interrupting the cycle of worrying: Financial implications of the California DREAM Act in the lives of undocumented college students. *The Review of Higher Education*, *43*(1), 335-370.

Rios-Ellis, B., Rascón, M., Galvez, G., Inzunza-Franco, G., Bellamy, L., Torres, A. (2015). Creating a model of Latino peer education: Weaving cultural capital into the fabric of academic services in an urban university setting. *Education and Urban Society*, *47*(1), 33-55.

Romo, E., Ozuna-Allen, T., & Martinez, M. A. (2019). "It Was Kind of a Dream Come True": Undocumented College Students' Testimonios of Cultural Wealth in the College Choice Process. *Journal of Hispanic Higher Education*, *18*(4), 389-409.

Sanchez, Ruben Elias Canedo, and Meng L. So. (2015) "UC Berkeley's undocumented student program: Holistic strategies for undocumented student equitable success across higher education. *Harvard Educational Review*, *85*(3), 464-477.

Sayer, M., Chaput De Saintonge, M., Evans, D., & Wood, D. (2002). Support for students with academic difficulties. *Medical Education,* 36, 643-650.

Serna, G. R., Cohen, J. M., & Nguyen, D. H. (2017). State and institutional policies on in-state resident tuition and financial aid for undocumented students: Examining constraints and opportunities. *education policy analysis archives*, *25*, 18.

Shelton, L. J. (2019). Undocumented Latinx college students' perceptions of campus climate. *Journal of Student Affairs Research and Practice*, *56*(1), 92-104.

Shelton, L. J. (2020). The Role of Institutional Agents in Supporting Undocumented Latinx College Students. *Journal of Student Affairs Research and Practice*, 1-14.

Silver, A. (2012). Aging into exclusion and social transparency: Undocumented immigrant youth and the transition to adulthood. Latino Studies, 10, 499–522.

Skoglund, K., Wall, T. J., & Kiene, D. (2018). Impact of Supplemental Instruction Participation on College Freshman Retention. *Learning Assistance Review*, *23*(1), 115-135.

Southern, K. G. (2016). Institutionalizing support services for undocumented students at four-year colleges and universities. Journal of Student Affairs Research and Practice, 53, 305–318.

Suárez-Orozco, C., & Hernández, G. L. (2020). "Waking Up Every Day With the Worry": A Mixed-Methods Study of Anxiety in Undocumented Latinx College Students. *Frontiers in Psychiatry*, *11*.

Suárez-Orozco, C., Katsiaficas, D., Birchall, O., Alcantar, C. M., Hernandez, E., Garcia, Y., ... & Teranishi, R. T. (2015). Undocumented undergraduates on college campuses: Understanding their challenges and assets and what it takes to make an undocufriendly campus. *Harvard Educational Review*, *85*(3), 427-463.

Terriquez, V. (2015). Dreams delayed: Barriers to degree completion among undocumented community college students. *Journal of Ethnic and Migration Studies*, *41*(8), 1302-1323.

Terriquez, V., & Gurantz, O. (2015). Financial challenges in emerging adulthood and students' decisions to stop out of college. *Emerging Adulthood*, *3*(3), 204-214.

Tienda, M. E., & Mitchell, F. E. (2006). *Hispanics and the Future of America*. National Academies Press.

Tinto V. 2017 Through the Eyes of Students. Journal of College Student Retention: Research, Theory & Practice. 2017;19(3):254-269. doi:10.1177/1521025115621917

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press, Chicago, IL 60637.

Valadez, M., Jefferies, J., Ayón,C., & Enriquez, L.E. (this issue) "Legal Vulnerability and Campus Environment: Assessing Factors that Affect the Academic Engagement of Undocumented College Students." *Journal of Latinos and Education.*

Yasuike, A. (2019). Stigma Management and Resistance among High-Achieving Undocumented Students. *Sociological Inquiry*, *89*(2), 191-213.

Yue, H., Rico, R. S., Vang, M. K., & Giuffrida, T. A. (2018). Supplemental Instruction: Helping Disadvantaged Students Reduce Performance Gap. *Journal of Developmental Education*, *41*(2), 18-25.

Table 1. Descriptive statistics (n=1,131)

Variable (referent)	n	Mean (SD) or %
Used academic support services (never)		
Has used	706	62.4
Immigration status (no legal status)		
DACA	853	75.4
Gender (female/women)		
Male/Men	265	23.4
Latino/a/x race/ethnicity (no)		
Yes	1,043	92.2
Age	1,131	21.8 (3.36)
Year in school (1st and 2nd year)		
3rd year and higher	797	70.5
University system (CSU)		
UC	595	52.6
Failed to turn in assignment (never)		
Rarely	362	32.0
Sometimes or often	321	28.4
Failed a course (no)		
Yes	477	42.2
GPA (3.0 - 4.0)		
0.0 - 2.49	122	10.8
2.5 - 2.99	271	24.0
Financial strain	1,131	1.9 (1.08)
Working (not working)		
Working 1 - 20 hours	351	31.0
Working 21+ hours	264	23.3
Commute time (less than 30 minutes)		
More than 30 minutes	422	37.3
Denied access to a resource (no, never)		
Yes	315	27.9
Received incorrect information (no, never)		
Yes	499	44.1
Difficult to get an answer (no)		
Yes	483	42.7
Negative sentiment from staff	1,131	.4 (.68)
Negative sentiment from students	1,131	1.0 (.87)
Studied with classmates	1,131	1.6 (1.03)
Communicated with instructor	1,131	2.0 (6.9)
Use of other campus resources	1,131	2.5 (1.5)
Sense of belonging	1,131	3.7 (.81)

Table 2. Logistic regression results of academic support services use among undocumented students (n=1,131)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Academic Performance										
Failed to turn in assignment										
Rarely (ref=never)	1.23	0.91-1.66							1.14	0.83-1.57
Sometimes, or Often (ref=never)	0.92	0.67-1.27							0.87	0.61-1.23
Failed a course										
Yes (ref=no)	1.56	1.15-2.10*							1.44	1.05-1.97*
GPA										
0.0-2.49 (ref=3.0-4.0)	0.55	0.36-0.86*							0.71	0.44-1.13
2.5-2.99 (ref=3.0-4.0)	0.86	0.62-1.19							0.95	0.67-1.34
Situational Barriers										
Financial strain			1.13	1.01-1.27*					1.08	0.94-1.23
Working										
Yes, 1 - 20 hours (ref=no)			1.58	1.17-2.14*					1.48	1.08-2.03*
Yes, 21+ hours (ref=no)			1.19	0.85-1.65					1.29	0.91-1.83
Commute time										
More than 30 minutes (ref=less)			0.86	0.65-1.12					0.95	0.72-1.27
Campus Exclusion										
Denied access to a resource										
Yes (ref=no)					1.02	0.76-1.37			0.88	0.64-1.21
Received incorrect information										
Yes (ref=no)					1.28	0.96-1.69			1.20	0.89-1.62
Difficult to get an answer										
Yes (ref=no)					0.91	0.69-1.20			0.89	0.67-1.19
Negative sentiment from staff					1.04	0.84-1.28			1.03	0.82-1.28
Negative sentiment from students					1.10	0.93-1.30			1.00	0.84-1.19
Campus Integration										

	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Studied with classmates							1.28	1.13-1.46**	1.27	1.11-1.45**
Communicated with instructor							1.21	1.06-1.39*	1.24	1.08-1.43*
Use of other campus resources							1.30	1.18-1.42**	1.25	1.13-1.38**
Sense of belonging							1.06	0.90-1.25	1.06	0.89-1.26
Controls										
Immigration Status										
DACA (ref=no legal status)	0.72	0.53-0.98*	0.70	0.51-0.96*	0.76	0.56-1.03	0.79	0.58-1.09	0.71	0.51-0.98*
Gender										
Male/Men (ref=female/women)	0.87	0.65-1.16	0.91	0.68-1.21	0.90	0.67-1.20	0.91	0.67-1.23	0.92	0.68-1.25
Latino/a/x race/ethnicity										
Yes (ref=no)	1.94	1.22-3.07*	1.85	1.18-2.93*	1.86	1.18-2.94*	1.67	1.04-2.67*	1.70	1.05-2.75*
Age	1.01	0.97-1.05	1.00	0.96-1.05	1.00	0.96-1.05	1.00	0.95-1.04	1.00	0.95-1.04
Year in School										
3rd years and higher (ref=1st and 2nd)	0.54	0.39-0.75**	0.56	0.40-0.78*	0.58	0.42-0.81*	0.51	0.37-0.72**	0.47	0.33-0.66**
University system										
UC (ref=CSU)	0.67	0.52-0.87*	0.65	0.49-0.86*	0.67	0.52-0.87*	0.60	0.46-0.80**	0.59	0.43-0.79**

Notes: *p < 0.05, **p < 0.001