First Generation Students in Higher Education

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ABSTRACT

The percentage of first-generation college students enrolling in universities has been increasing. However, the percentage of first-generation students who continue past the first year is significantly lower than their peers. Past research indicates that low bachelor's degree attainment rates among first-generation students include difficult transitions to college, financial barriers, and personal relationships. Recent literature confirms a change in educational pathways for many first-generation students. As the cost of education increases, the traditional route of four-year institutions has encountered a more cost-effective pathway offered by two-year community colleges. However, the challenges present in transferring from a two-year community college to a four-year university impact the bachelor's degree attainment rate for first-generation and transfer students. It is crucial to identify factors contributing to the gap to create policies and services that better support students from marginalized backgrounds.

This study employs logistic regression to compare the educational experiences of first-generation and transfer students at a large public Hispanic-Serving Institution (HSI) university. I examine the association between first-generation students or transfer students and academic challenges such as academic probation. Findings support most prior research surrounding the academic challenges pertaining to transfer students and their educational experiences in higher education institutions. However, contrary to recent research, this study did not find a significant relationship between first-generation students and likelihood of being on academic probation. Although no significant relationship was observed between first-generation students and having ever been on academic probation, educational policies that further support this student body remain essential.

INTRODUCTION

College students who are the first in their families to obtain a bachelor's degree face numerous academic and social challenges in their transition into college, impacting their access and retention in higher education (Redford and Hoyer 2017). Using the definition from the National Center for Education Statistics (NCES 2018), students are considered first-generation if their parents completed some college credits but hold no degree or may have siblings who have completed bachelor's degrees. Throughout this thesis, I will use the definition from Cataldi, Bennett, and Chen (2018). As of 2015–2016, 56 percent of all undergraduates were first-generation, meaning neither parent held a bachelor's degree (RTI International 2019). First-generation students tend to be racial minorities and come from lower-earning households; Latinx students represented 27 percent of first-generation college students, compared to 9 percent of traditional students, and 77 percent of students come from households with income below $50,000, compared to 29 percent of traditional students (Redford and Hoyer 2017). Combined with the challenges of being a racial minority and coming from a low-income household, first-generation students tend to withdraw from college at higher rates than traditional students, especially before the second year (Cataldi et al. 2018). Although many bridge programs and resources aim to close equity gaps for first-generation students, there is still a need for support beyond the first year of enrollment.

Scholars have identified numerous contributing factors as to why first-generation college students struggle academically (Cataldi et al. 2018; Ives, Castillo, and Montoya 2022). However, a key barrier in college persistence among first-generation students is academic probation. Students earning low grades are placed on academic probation and may be suspended if grades do not improve. One of the key factors contributing to academic probationary experiences among first-generation students may be insufficient academic preparation prior to entering college (Grace-Odeleye 2019). Additionally, the challenges faced by transferring from two-year colleges into four-year universities may potentially exacerbate rates at which first-generation students are placed on academic probation compared to continuing first-generation

students. Because the enrollment of first-generation students is expected to increase in the next decade (Cataldi et al. 2018), it is important for researchers to understand the academic challenges faced by first-generation students.

This paper examines the relationship between generational status (first-generation or traditional) and the likelihood of academic probation as a key obstacle many first-generation students face navigating higher education. My thesis also considers the experiences of transferring from a two-year college to a public four-year university. It aims to contribute to prior research by highlighting students' experiences with academic probation and providing insight on how to target better students disproportionately impacted by obstacles commonly encountered on educational pathways.

REVIEW OF LITERATURE

Past research on first-generation students suggests that their educational experiences are negatively impacted by a wide range of factors such as financial constraints, sense of belonging, and family conflicts (Ives, Castillo, and Montoya 2020). Moreover, many first-generation students who start at two-year colleges encounter additional barriers when transferring to four-year universities, including adjusting to differences in class and campus size, academic rigor, and institutional culture (Wang, Lee and Wickersham 2019; Witteveen and Attewell 2020; Xu et al. 2018). While these factors are beyond the scope of this study, the literature review draws on prior research on academic probation, placement, and transferring experiences among first-generation students.

Academic Probation among First-Generation Students

Academic probation is a prevalent tool used by colleges and universities to warn students that their grade point average (GPA) is below a minimum threshold (typically 2.0 on a 4.0 scale) and are not in good academic standing (Bowman and Jang 2022). If students do not meet the minimum threshold within a specific timeline, students are usually subject to escalating penalties up to dismissal from the institution (Bowman et al., 2020). While national data on academic probation is scarce, research suggests

that academic probation is relatively common among undergraduates in general–one study observed that more than 94 percent of students at a large four-year university were placed on academic probation within the first three semesters (Leon et al. 2019). Moreover, nearly 25 percent of first-year students in a statewide community college sample had overall GPAs below 2.0 – the minimum threshold for most universities (Schudde and Scott-Clayton 2016). Despite the prevalence of academic probation among undergraduates generally, few studies have investigated whether first-generation students are more likely to be placed on academic probation and what role transferring from a two-year to a four-year university plays in mediating this relationship.

As reported by Eveland (2019:2) "although the growing attendance of first-generation college students attests to higher education's commitment to access and social mobility, by many measures students who are the first in their family to attend college are not as successful as their later-generation peers". Moreover, research has shown that first-generation college students have many responsibilities that compete with that of the university for time and attention (Eveland 2019). Thus, the obstacles first-generation students encounter in assimilating to university culture are exacerbated by the lack of preparation to navigate through these spaces successfully. Researchers have found that "negative signals" experienced in higher education contribute to the early withdrawal of first-generation students, such as placement in remedial coursework, lower GPA, repeating classes, and delay in major declaration - all of which results in a slower accumulation of credits towards the degree (Chen 2005). While there are a variety of resources to support students, first-generation students continually face significant challenges impeding their success in degree completion and beyond.

Although there is a broad range of scholarship that examines the various aspects of first-generation student profiles that contribute to their academic experiences, there is a lack of scholarship centered on the intersection of the personal and academic identities of this student population. Through a comparative analysis on first-generation and traditional students, lack of family support and understanding from family members

are other issues faced by many first-generation college students (House, Neal, and Kolb 2019: 4). Furthermore, Abraham Barouch-Gilbert's (2016) qualitative study of former probationary students draws on a self-efficacy theoretical framework to analyze the role that supports from family, friends, and the four-year university played in the academic attainment of participants. Barouch-Gilbert (2016:156) states,

> When sharing their experiences of academic probation, participants described how to support, encouragement (social persuasions), and guidance from others (vicarious experiences) emerged as primary sources of self-efficacy information. Further, participants' academic achievements (e.g., good grades on papers and/or assignments) and changes in their emotional states strengthened their beliefs in their academic capabilities.

The different components that impact the educational success of first-generation students are tied to the various facets of their intersecting identities. Further analysis of the effects of intersectional identities on the educational experiences of marginalized student bodies will provide a stronger understanding of the discrepancies in higher education institutions.

Navigational Pathways of First-Generation Students

Although not all transfer students are first-generation, the transfer identity forms a large part of the intersectional identities of first-generation students. Over one-third (37%) of first-generation students entered as transfers, versus 27% for others, nearly three-fifths (58%) of first-generation students identified as female, and three-fifths (60%) of first-generation students were reported as lower-income Pell Grant recipients, versus 16% for others (University of California Annual Accountability Report 2021). While there are various pathways among students who navigate multiple higher education institutions (e.g., lateral transfer, reverse transfer, dual credit), the most critically reviewed and prevalent transfer pathway is the vertical transfer- when a student transfers from a two-year to a four-year college with or without an associate degree (Taylor and Jain 2017; Townsend

2001). This study examines students who identified as having vertically transferred from a two-year college into a public four-year university.

Vertically transferring from community colleges to four-year institutions plays a critical role in upward mobility among first-generation, low-income, and racial/ethnic minority students – many of whom are overrepresented in community colleges but less represented at four-year universities (Jenkins and Fink 2015; Witteveen and Attewell 2020). Part of this can be attributed to vertical "transfer gaps" - the difference between the percentage of students who indicate they desire to transfer and the percentage that transfer (Taylor and Jain 2017). A racial transfer gap, coined by Crisp and Nunez (2014), identifies an inequity in vertical transfer rates based on race. Using this lens, white students from community colleges were 71% more likely to transfer than students of color (Wood et al. 2011). Thus, while racial and ethnic minority students are heavily represented at the community college level, this representation is not reflected in the transfer to four-year universities.

The underrepresentation of marginalized students in transfer rates can be attributed to the many challenges that students must navigate; many students who begin at community college must ascertain when to transfer, whether their credits transfer, how to afford increased tuition costs, or how to juggle career, education, and family (Jabbar, Epstein, Sanchez, and Hartman 2020). Many first-generation students who transfer struggle with securing financial resources to pay for increased tuition costs at a four-year university which can be a crucial factor when deciding to which institutions they apply and transfer (Xu et al. 2018). Low financial security can also negatively impact the academic and social lives of first-generation students; many first-generation students are employed while attending college, resulting in fewer opportunities for interactions between first-generation students and their peers as well as the level of involvement in campus culture (Gibbons and Woodside 2014).

Lack of adequate academic preparation has also been a significant aspect of transfer students' experiences. Community college students are less likely to transfer if they attended under-resourced high schools that did not adequately prepare them for

college if their parents did not attend or complete higher education if they are older, or if they did not come from wealthy families with stable incomes (Wood et al. 2011; Taylor and Jain 2017). Common struggles transfer students reported were social isolation, problems adapting to the change in academic systems and class sizes, as well as a lack of access to information, and difficulty maintaining a balanced student life (Solis and Duran 2020).

Overall, the different components that impact the successful transfer from two-year colleges to four-year universities are also related to the challenges faced by first-generation students. Thus, examining the experiences of both statuses with academic probation can provide further insight on the challenges faced by marginalized students.

The Current Study

In this study, I drew data from a web-based questionnaire that collected responses from undergraduate students currently enrolled at California State University, Los Angeles (Cal State LA). Using quantitative analysis, this study examines the experiences of first-generation and transfer students on academic probation. Thus, I ask: (1) What is the relationship between first-generation student status and academic probation? and (2) How does transferring into a four-year university mediate the relationship between first-generation student status and academic probation?

Hypotheses

For the first research question, I hypothesize that first-generation students will have higher odds of being on academic probation than their traditional student counterparts. Regarding the second question, I hypothesize that the relationship between first-generation status and academic probation is mediated by transfer status. That is, the experience of transferring from a two-year college will have an indirect association with academic probation through first-generation status.

The literature on the educational pathways and experiences of first-generation and transfer students describes similar challenges that characterize their educational outcomes.

Therefore, I examine the odds of these student identities ever having been on academic probation. As I will demonstrate, the relationship between academic challenges and student status will further support the literature and hypotheses outlined above.

METHODS
Data

I collected data using a web-based survey (i.e., Qualtrics) between September 9th, 2021 and February 17th, 2022, distributed among undergraduate students enrolled at California State University, Los Angeles (Cal State LA) during this window. The survey consisted of 37 questions and was estimated to take approximately 11 minutes. Eligibility to take the survey included having a current undergraduate enrollment status at Cal State LA. Access to the web-based questionnaire was provided in a variety of ways, including an anonymous URL link and QR code both available via flyer. The survey flyer was posted on the sociology department's bulletin board and distributed by several department faculty. The survey asked participants about their academic experiences in the 2020-2021 school year. Additionally, the survey includes closed- and open-ended questions about educational barriers, such as academic probation, and decisions to withdraw and re-enroll.

Measures

The key independent variables of this study include first-generation and transfer statuses. Students who identified as first-generation were coded as "1" and "0" for students who did not check this option. Students identifying as transfer were coded as "1" and "0" was coded for students who did not check this option. These categories are not mutually exclusive, as the original survey requested students to check all identities that applied to their experience. The main outcome variable in this study is academic probation. Academic probation is a dummy variable, with "0" coded for students who reported not having ever been on academic probation and "1" for students who identified as ever having been on academic probation.

Covariates in my models include student demographic characteristics, such as gender, race and ethnicity, year of

enrollment, and house size. Gender was recoded into a dummy variable, coded 0 for male and 1 for female. Racial-ethnic categories included Latinx, American Indian/Alaskan Native, Asian, Black/African American, Middle Eastern/North African, Native Hawaiian/Other Pacific Islander and White identities. Due to sample sizes comprising less than 10 participants (and to ensure confidentiality among participants), the racial-ethnic variable was collapsed into two categories: "Latinx" (coded as "1") and "non-Latinx" (coded as "0"). Year of enrollment is drawn from participants identifying what year they are enrolled at Cal State LA. Because of the relatively smaller sample of students enrolled in their fifth year and beyond, I pooled participants in their fifth year and beyond into a single category for year of enrollment. Household size is drawn from a question asking participants to identify the number of residents residing in their household, including the participant. Because not all students self-reported funding strategies in the survey, I use house size to approximate a measure for socio-economic status and include it as a control in my analytic models.

Sample

Data drawn from the CSULA Office of Institutional Effectiveness (2022) reports that in the 2021-2022 school year of 44,445 total enrolled undergraduate students, approximately 72 percent identified as Hispanic, and 79 percent had a parent that did not obtain their bachelor's degree. Furthermore, a majority of the students enrolled in the fall 2021 semester were female (59 percent), with 41 percent males, less than 1 percent identifying as non-binary. Moreover, of the total enrolled undergraduate students, 10 percent were new transfer students. Additionally, 81 percent of all students reported a full-time course load with 19 percent identifying as part-time students. Thus, the average student profile of those currently enrolled is Hispanic, full-time, and first-generation.

Table 1 summarizes the controls and the number of students that completed surveys for this study (n = 59). The initial sample included 98 participants with 87 completed survey responses, resulting in an analytic sample of 59 observations with non-missing values on key independent, dependent, and

demographic variables. The sample comprises more women (86 percent) than men (14 percent), which does not necessarily align with the undergraduate 2021-2022 average student profile of currently enrolled CSULA students of 59 percent female and 41 percent male. Moreover, the sample consisted of primarily Latinx students (85 percent), and 15 percent non-Latinx. Regarding academic characteristics, more than half of students were between their first and fourth year at Cal State LA (90 percent), while 10 percent were in their fifth year or beyond. For key independent variables, the study sample is primarily composed of first-generation students (83 percent), with more than half identifying as transfer students (54 percent). For academic outcomes, about 22 percent of students reported having ever been on academic probation.

Analytical Strategy

Given that the outcome variable is dichotomous, I use logistic regression for my analyses to estimate the odds of having ever been on academic probation among first-generation students. The first model is a bivariate analysis, predicting the odds of academic probation across first-generation and traditional students. Then, the second model includes transfer status as a control to investigate how transfer status mediates the relationship between first-generation status and academic probation. The third model includes demographic characteristics, such as Latinx, gender, year, and house size, to statistical control for extraneous variables and test the influence of these variables on the relationship between first-generation status, transfer status, and academic probation. For ease of interpretation, the coefficients from logistic regression analyses are exponentiated to the odds ratio.

FINDINGS

Table 2 reports the logistic regression results of first-generation and transfer students in odds ratio predicting having ever been on academic probation. I first report the odds ratio for first-generation status across all models. Model 1 reports the baseline model without controls for first-generation students ever on academic probation. While first-generation students have

higher odds of academic probation, the coefficient was not statistically significant ($\beta = 2.92$) My findings thus show that first-generation first status is not significantly associated with odds of academic probation. Likewise, in Model 2, although the odds of academic probation increase, the association for first-generation status remains statistically insignificant ($\beta = 3.05$). Model 3, which includes controls for Latinx, gender, year of enrollment, and house size, reports statistically insignificant odds among first-generation students in odds of academic probation ($\beta = 2.16$). Thus, I reject my first hypothesis that first-generation students will have higher odds of academic probation than traditional students. Instead, I find that first-generation status is not significantly associated with academic probation.

Next, I examine the odds of academic probation with the transfer status of the student. Because Model 1 does not include transfer status as a variable, I will present results from Models 2 and 3. Model 2 reports higher odds of academic probation that is statistically significant ($\beta = 15.77$). This suggests that students who transferred had 15 times the odds of those who did not to have ever been placed on academic probation, even after controlling for first-generation status. Transfer status appears to be a stronger predictor of academic probation than first-generation status alone.

Model 3 reports that, even after controlling for student-level covariates, the odds of academic probation increased ($\beta = 24.93$) among transfer students, and the statistical significance increased. Transfer students have nearly 25 times the odds of having ever been on academic probation compared to traditional students, even after accounting for first-generation status and other demographic characteristics. Across Models 2 and 3, because the odds ratio is greater than 1, transferring from a two-year college appears to be a risk factor of experiencing academic probation at any point in a student's academic career.

The high magnitude of the odds ratio ($\beta = 15.77$ in Model 2 and $\beta = 24.93$ in Model 3 also suggests a unique and strong association between transfer status and academic probation. Thus, I reject my second hypothesis that transferring from a two-year college to a four-year university mediated the relationship between first-generation status and academic probation. Instead, I find evidence of a direct relationship between transfer status and

academic probation. However, caution must be exercised in interpreting the odds ratio for first-generation status, in that while the coefficient remained statistically insignificant across all models (perhaps due to the small sample sizes of the comparison group), first-generation students had higher odds of academic probation compared to traditional students. Overall, my findings demonstrate evidence of the challenges transfer students endure in their navigational pathways in higher education.

DISCUSSION

This thesis examined the relationship between academic probation and student status (e.g., first-generation, transfer) to provide insight on their academic experiences. Contrary to prior research (Barouch-Gilbert 2016), my study shows that first-generation status is not statistically significantly associated with academic probation. However, consistent with prior research, transferring from a two-year college to a four-year university is significantly associated with having been on academic probation (Taylor and Jain 2017). My findings also show that, even after accounting for students who identified as first-generation, transfer students had significantly higher odds of academic probation compared to traditional students.

The findings from this study align closely with prior research on the educational experiences of transfer students. Moreover, this study builds on Barouch-Gilbert's (2016) analysis of the impact of academic challenges such as academic probation on transfer students. The significant relationship between transfer students and academic probation is further highlighted throughout this study. Thus, additional analysis of the role that supports from family, friends, and institutions play in the academic attainment of marginalized students is essential to develop stronger educational policies.

This thesis aims to contribute to literature regarding the factors contributing to the academic experiences of first-generation students while also attending to their navigational pathways. However, this study has important limitations. The first limitation is a limited sample size from survey collection efforts. Although the survey was distributed to on-campus and off-campus students, the variance in experiences may not be accounted for.

Many students were able to select various identities in multiple response formats; as noted in the sample description, the sample size was relatively small (89 responses) and reduced by 6 percent (59 observations) after eliminating responses that were missing on key variables. The second limitation is non-response bias, in that sampled students who did not respond (by choice or by mistake) may differ in characteristics from students who responded to the questions about academic probation, first-generation status, transfer status, or other demographic characteristics. The third limitation is that this study cannot account for potential differences in the unobserved characteristics of students who transferred or did not transfer, or who were ever placed on academic probation. Furthermore, sampling on-campus students provides an additional set of limitations. Given that the data cannot establish whether the experience of academic probation happened before or after transferring, my study cannot make causal inferences. Additionally, the sample does not account for students who have been on academic probation or are academically disqualified from enrolling at CSULA. As such, the results from this thesis should be viewed as a descriptive analysis. The fourth limitation is that the study sample comprises different demographic characteristics than the overall CSULA student population. Moreover, the study sample only collected survey responses from students at a public four-year university. Thus, these findings should be cautiously interpreted and cannot be considered a nationally representative student population.

Although my hypotheses were not supported by my findings, the results contribute to existing literature and potential directions for future research. Educators and policymakers should pay special attention to the intersecting identities of transfer students, who tend to be racial-ethnic minorities, come from low-income households, and identify as first-generation. Future research should consider expanding the focus of first-generation students to include the various challenges posed by transferring from two-year colleges into four-year universities. Future directions of this study include replicating the survey in different settings such as other CSU universities, the UC university system, and the community college network.

CONCLUSION

Despite the prevalence of academic probation among first-generation students, there are few studies that examine the additional academic challenges faced by first generation students who tend to transfer from two-year colleges into four-year universities. This thesis examines the relationship between first-generation students currently enrolled at CSULA and the odds of having ever been on academic probation, with transfer status as a mediating variable. Contrary to prior research, my thesis finds that first-generation status was not statistically significant with academic probation. However, I find that transfer students had significantly higher odds of having been placed on academic probation. My findings shed light on the transfer experiences of first-generation students and their relationship to the academic challenges faced by many first-generation students.

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APPENDIX

Tables

Table 1. Descriptive statistics of variables (n = 59 students)

	n	Percentage
Status		
First-generation student	49	83
Transfer student	32	54
Demographics		
Gender		
Female	51	86
Male	8	14
Race/Ethnicity		
Hispanic or Latinx	50	85
Non-Latinx	9	15
Year of enrollment		
1st year	7	12
2nd year	15	25
3rd year	13	22
4th year	18	31
5+ years	6	10
House size		
2 residents	11	19
3 residents	11	19
4 residents	18	31
5 residents	8	14
6 residents	5	9
7 residents	5	9
9 residents	1	2
Academic probation (ever)		
No	46	78
Yes	13	22
Total	59	100

Source: First-generation Students in Higher Education Survey.

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Table 2. Logistic Regression – estimated odds ratios (OR) of ever being on academic probation

	Model 1	Model 2	Model 3
First Generation Status	2.92	3.05	2.16
	(1.11)	(1.16)	(1.26)
Transfer Status		15.77*	24.93**
		(1.09)	(1.18)
Demographics			
Latinx			1.68
			(1.34)
Gender			3.44
			(1.38)
Year			
1st Year			1.08
			(1.26)
2nd Year			1.46
			(1.40)
3rd Year			1.98
			(1.26)
4th Year			2.93
			(1.74)
Family Housing			
House Size			1.46
			(0.26)
Constant	0.11	0.01	0.00
	(1.05)	(1.48)	(2.81)
Pseudo R	0.03	0.29	0.37
N	59	59	59

Note. Standard errors underneath coefficients in parentheses. Controls are in reference to non-FG, native student, White, male, 5th year+ students. $^+ p < 0.10$, $^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$.

Source: First-generation Students in Higher Education Survey.