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Exploring the First-generation College-going Experience

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Abstract

College-going culture represents the development of college aspiration within individuals, including the necessary guidance and support to prepare students for college. First-generation students, those whose parents have no bachelor's degree, are of particular research interest because they have lower college-going rates than their peers whose parents have degrees. This reality contributes to disparate educational outcomes with both individual and societal impacts. This mixed-methods case study provides insight into the college-going experiences of first-generation college students by answering the research question, "How did first-generation students attending an Hispanic-serving institution (HSI) experience the phenomenon of college-going culture in their high schools and communities?" Data analysis resulted in six assertions with implications for practitioners and future researchers, including the importance of relationships with high school staff and the opportunity to take dual-enrollment courses.

Keywords: college-going culture, first-generation, college access, aspiration

1. Introduction

1.1 Why College-going Culture Matters

In order to fully understand college-going culture, it is important to understand how a student comes to believe college is for them and accesses the tools necessary to make attendance a reality. College-going culture is the development of college aspiration plus the provision of necessary guidance and support to prepare students for college application, enrollment, and success (Achinstein, Curry, & Ogawa, 2015; Corwin & Tierney, 2007). Past research suggests activities that promote college attendance range from academic rigor (Calaff, 2008; McKillip, Godfrey, & Rawls, 2013) to frequency of contact with guidance counseling staff (Robinson & Roksa, 2016).

Choosing to attend college, as well as deciding which college to attend, impact personal opportunity. Bachelor degrees translate into higher lifetime incomes, increased job stability, and expanded opportunities for both the graduate and the next generation (Trostel & Chase Smith, 2015). Degreed adults have lower unemployment rates, make on average 67% more annually, increase socioeconomic status faster, and stay healthier (College Board, 2016).

Communities also benefit from an educated workforce, with lower crime and public-assistance rates, higher social engagement, and increased tax revenues (Baker, Klasick, & Reardon, 2018; Serna & Woulfe, 2017). Each dollar invested in higher education results in approximately $5 in societal benefit (Serna & Woulfe, 2017). The clear individual and societal benefits of increased college participation establish the importance of college-going culture research. In addition, research that focuses on first-generation students, those whose parents have no bachelor's degree (NCES, 2018), helps to focus practical college-going interventions on populations who would most benefit from them.

This study (Holliday, 2020) explored the primary research question: "How did first-generation students attending a Hispanic Serving Institution (HSI) experience the phenomenon of college-going culture in their high schools and communities?"

1.2 College-going Culture Among First-generation Students

Research suggests a positive correlation between college-going rates and parental education (Kim & Nuñez, 2013; NCES, 2018), with one parent having a bachelor's degree significantly increasing a student's likelihood of attending college (Kim & Nuñez, 2013). Only 72% of first-generation students enrolled in college within 8 years of high-school graduation, compared with 84% of those whose parents had some college and 93% whose parents had bachelor's degrees (NCES, 2018). National comparisons of academic rigor between first-generation students and those with degreed parents demonstrate disparities in the percentage of students taking Advanced Placement (AP) or International Baccalaureate (IB) coursework (18% compared to 44%), calculus (7% compared with 22%) or other high-level math (27% compared with 43%) (NCES, 2018). Families of both first-generation and legacy students generally have strong college-going expectations; what differs is the families' knowledge of how to make college enrollment a reality (Langenkamp & Shifrer, 2018).

Perceived barriers to college are higher among first-generation students, and those perceptions impact college aspiration (Ojeda & Flores, 2008). Given the large proportion of Hispanic-identifying participants in this study, it is important to understand that first-generation Latina/o students perceive significantly lower support from school personnel in preparing them for college than their Latina/o counterparts with parents who attended college (Gibbons & Borders, 2010).Vega (2018) found that first-generation Latina/o students encountered college-going barriers including inadequate high school guidance, financial and familial concerns, and greater comfort with a community college as a starting point to higher education. However, a review of the college-going literature revealed a limitation in the number of studies focused on the college-going culture development of first-generation students, particularly first-generation students who choose to attend an HSI or other minority-serving institution. This study provides additional insight into that population, utilizing theoretical constructs which avoid a deficit perspective of students and families, while recognizing the reality of disparate power and access to social and economic capital.

1.3 Proven Indicators of a College-going Culture

One influential study defined college-going culture at high schools as high, moderate, or low, based on the college-going rates of graduates to either 2-year or 4-year institutions (Robinson & Roksa, 2016). They found that early access to a college counselor created ongoing conversations about college throughout high school and was highly predictive of a student's decision to go to college (Robinson & Roksa, 2016). Continuous conversations about college throughout the school, not only within the guidance office, are strongly associated with development of a college-going culture, as is the belief of teachers, counselors, and administrators in the ability of all students to move into postsecondary work (Aldana, 2014; Stillisano, Brown, Alford, & Waxman, 2013; Vela, Flamez, Sparrow, & Lerma, 2016). High schools with a strong college-going culture tend to promote college for all and provide the support systems students need to be academically successful (Weinstein & Savitz-Romer, 2009). In addition, school personnel's attitudes were a primary indicator of the presence or absence of a college-going culture (Bosworth, Convertino, & Hurwitz, 2014). The *Survey of Recent High School Graduates* (Oakes, Mendoza, & Silver, 2004), which was also used in this study, measured a number of variables, with college-going culture as a primary construct. The college-going culture construct within the survey was a significant predictor of college enrollment and included three college-going factors—Information/Assistance, High Expectations, and Steering—which related to school personnel actions and attitudes (Oakes et al., 2004).

Additional research shows that strong academic programming with a focus on academic rigor results in higher college-going rates and serves as another indicator of college-going culture (Calaff, 2008; Kim & Nuñez, 2013; McKillip et al., 2013; Saunders & Serna, 2004). Findings suggest all students should be given access to some component of a rigorous academic program (McKillip et al., 2013; Rochford, O'Neill, Gelb, & Ross, 2011).

1.4 Conceptual Framework and Research Design

Determining how "first-generation students attending an HSI experience the phenomenon of

college-going culture in their high schools and communities?" required an extensive exploration of participants' college-going experience, centered in the existing research and guiding theories. In any study, the researcher's philosophical approach will interact with applied theoretical frameworks to guide the development of a study that answers significant questions with appropriate rigor (Creswell & Plano Clark, 2018). Using theoretical frameworks within research means their use is infused throughout a study, from the literature review and development of methodology through data analysis and implications (Yamauchi, Ponte, Ratliff, & Trainor, 2017).

Four frameworks prevalent in the college-going culture literature—social capital, community cultural wealth (CCW), funds of knowledge (FoK), and social cognitive career theory (SCCT)—each explain components of college-going culture. They provide ways to more deeply understand how students' circumstances, relationships, life experiences, and personal beliefs contribute to their internalization of college-going culture. However, each theoretical framework on its own does not allow for a complete understanding of college-going culture for underrepresented, first-generation students. Separately, they present an incomplete understanding of this culture among first-generation students (Holliday, 2020). This leads to the concept of synthesizing multiple theoretical frameworks for a more holistic approach. Following the example of other researchers (Berzin, 2010; Garcia & Ramirez, 2018; Rodriguez, 2013; Yamauchi et al., 2017), this study synthesized the frameworks in a manner that allowed each to contribute to the research process and more fully contextualize the study (Holliday & Anderson, 2021). That integrated framework provides a better basis for understanding how secondary-school environments, family, friends, and personal agency impact the college-going experience of first-generation students (Holliday, 2020). In order to answer the research question, this study needed not only social capital theory's understanding of how resource access impacts the college-going experience, but the primacy of contributions of the family and community knowledge that are gained by CCW and FoK, and the foregrounding of student agency that occurs with both FoK and SCCT. The first author employed a mixed-methods, sequential, explanatory case-study design, a complex mixed-methods design in which the quantitative strand informed the development of cases for study within the qualitative strand (Creswell & Plano Clark, 2018).

2. Method

The mixed-methods, case-study design was selected to fully explore the college-going experiences of first-generation students within distinct cases—those from high schools with varying levels of college-going culture using the Robinson and Roksa (2016) classification system. Each culture classification was intended to form a case—low, moderate, or high, based on the percentage of graduates attending two-year and four-year institutions (Robinson & Roksa, 2016).

2.1 Participants and Site

The population included all first-generation college students at an HSI in a western state, selected due to the large number of first-generation students at that institution and the desire to fill a gap in existing literature related to studies like this at HSIs. Of the population, 391

students were within the delimited sample of currently enrolled first-generation students within two years of high-school graduation. The inclusion of students who graduated high school within the past two years helped ensure their recollections of the college-going experience would be clear.

2.2 Sampling Procedures

In the first step of quantitative participant outreach, the researchers sent an email with an online survey link inviting students to take part in the study. The invitation was first distributed to 100 students selected randomly using a numbers table from the master list of students within the delimited sample. The intent was to generate between 30 and 50 survey responses, meeting minimum guidelines for the intended quantitative statistical analyses (Gliner, Morgan, & Leech, 2017). Reminder emails were sent twice during the initial 14-day response timeframe. To generate 30 or more responses from students who graduated from high-school types that allowed for adequate case development, the researchers then pulled a second and third random sample from the list, excluding those previously invited, and sent invitations using the same protocols. In total, 300 students received the survey invitation, and 44 students completed the survey, for a 14.6% response rate.

2.2.1 Sample Size and Description

Although the response rate was lower than the 30% response rate recommended for survey research (Gliner et al., 2017), 14.6% aligns with findings that email survey responses trend lower than other forms of survey research (Saleh & Bista, 2017) and is higher than the 10% response rates of some published studies from online surveys (Sivo, Saunders, Chang, & Jiang, 2006). The response rate was adequate for case formation, as it provided students within the various school culture classifications for comparison. Table 1 presents respondent demographics and distribution of culture classifications.

Table 1. Demographic Summary of Survey Respondents (N=44)

Variable	*n*	%	Willing to be interviewed (n)
School culture classification			33
Low	1	2	1
Low-moderate	13	30	8
Moderate	5	11	5
High-moderate	18	41	13
High	0	0	0
Unknown	7	16	6
Hispanic/Latino			
Yes	22	50	16
No	22	50	17
Race/ethnicity			
American Indian/Alaska Native	1	2	0
Asian	1	2	1

Black/African American	3	7	2
Other	4	9	3
White	35	80	27
Pell eligibility			
Yes	32	73	23
No	12	27	10
Working			
Part-time	27	61	20
Full-time	3	7	3
Not working	13	30	9
No response	1	2	1

Case study participants were a nested subsample of survey responders who expressed interest in the interview phase, selected in a maximal-variation sampling approach (Creswell & Plano Clark, 2018). Demographic indicators allowed selection of participants with varied experiences and culture classification/case assignment (Table 2).

Table 2. Qualitative Case Study Participants

Pseudonym	Case Assignment	Race/Ethnicity	Major	Pell Eligible	Employment
Sarah	Mod	Not Hispanic/ White	Premed	Yes	Not working
Lynn	Mod	Not Hispanic/White	Business	Yes	PT; on and off campus
Kay	Mod	Not Hispanic/White	Nursing	Yes	PT; on campus
Thomas	High-mod	Not Hispanic/White	Cybersecurity	No	PT; on and off campus
Jo	High-mod	Hispanic/White	Premed	No	FT; on and off campus
Xman	High-mod	Hispanic/White	Engineering	Yes	Not working
Jay	Low-mod	Hispanic/White	Social Work	No	Not working
Teresa	Low-mod	Hispanic/White	Business	No	PT; off campus

Note: Mod = moderate; Low-mod = low-moderate; High-mod = high-moderate; FT = full time; PT = part time

2.2.2 Data Collection and Measures

Quantitative data collection began with a version of the *Survey of Recent High School Graduates* which had been previously administered and validated (Oakes et al., 2004). That survey measured a number of variables, but included college-going culture as a primary construct. Oakes et al. (2004) identified strong predictive relationships between principal college-going factors and admission to a California public institution of higher education, with students on the high end of each college-going-factor scale demonstrating admission rates up to four times higher than those in the lower quartiles. Permission was received to

replicate the survey with a focus on the college-going structure constructs, and it was minimally modified to collect necessary demographic information.

For case development, the first author gathered publicly available data (graduation rates, percentage of graduates attending any postsecondary institution, and percentage attending 2-year and 4-year institutions) for each respondent's high school. The study included two interviews with each of the eight participants, with the first interview focused on getting to know the students, explaining the research project, and exploring basic recollections of their college-going experience and related family involvement. The second interview delved further into the students' college-going experiences, with a focus on the school-based portion of those experiences, and follow-up on any information needing additional exploration from the first interview. The semi-structured interviews allowed for discussion of the students' development of college aspirations, their college exploration and selection process, high-school support and resources, and their transition into college. Questions explored personal beliefs related to the students' college journey, and also the attitudes, support, and influence of their families, friends, school officials, and the larger community. Some prompts or questions were dependent on information gleaned from survey responses prior to the interviews. After each interview ended, it was transcribed and provided to participants for review in preparation for analysis.

2.3 Culture Classifications for Case Development

This study's application of respondents' school performance data to an existing classification system revealed a gap in that system that went beyond the presence of school types within the surveyed population, requiring adjustment prior to case development. Of the 44 respondents, seven attended a school for which no data was available (either out-of-state or home school), five attended a school that met the moderate culture classification, one attended a school that met the low culture classification, and 31, or 70% of all respondents, attended a school that did not conform to the Robinson and Roksa (2016) model.

Specifically, those nonconforming schools tended to have a large number of students who went to no postsecondary school, which made it impossible to meet the percentages required in the Robinson and Roksa (2016) model. The nonconforming schools almost met the requirements for moderate, but were split along high and low lines based on the total percentage of graduates who attended any postsecondary institution, which is where the gap in the Robinson and Roksa (2016) model appears to occur. For example, one school had 26% of graduates attending a 4-year school, but only 24% attending a 2-year school—close to meeting Option 2 for Moderate, but not quite. Another school had 27% attending a 4-year school, but only 16% attending a 2-year school. In both of these examples, like the others in the nonconforming group, the Robinson and Roksa (2016) classification is skewed when applied to this population by the fact that a large percentage went to no postsecondary school.

After reviewing the data and consulting with other researchers, and in order to better reflect the study data, the authors amended case development to add the low-moderate and high-moderate categories. The original low, moderate, and high classifications were modified (Table 3) to include graduates attending any postsecondary institution as an indicator of

low-moderate or high-moderate culture. Using this revised classification, of the 37 respondents whose schools had data available for use, none came from schools with high college-going culture, five came from schools with moderate college-going culture, one came from a school with low college-going culture, 13 came from schools with low-moderate college-going culture, and 18 came from schools with high-moderate college-going culture.

Table 3. Modified College-Going-Culture Classification System

Classification	Grads Attending 4-Year Institutions	Grads Attending 2-Year Institutions	Grads Attending Postsecondary Institutions
Low college-going			
Option 1	24% or less	—	—
Option 2	—	75%–100%	—
Option 3	25%–49%	50%–74%	—
Low-moderate college-going culture			
Option 1	25%–49%	—	55% or less
Moderate college-going culture			
Option 1	50%–74%	—	—
Option 2	25%–49%	25%–49%	—
High-moderate college-going culture			
Option 1	25%–49%	—	56% or more
High college-going			
Option 1	75%–100%	—	—

3. Analysis and Results

Quantitative analysis in this study served two primary roles—case formation and standard statistical analyses with results that enhanced understanding of the participants and cases. Qualitative analysis adhered to accepted case-study analysis procedures, utilizing a multiple case-study analysis method outlined by Stake (2005). Table 4 provides additional information about the specific analyses undertaken during this study.

Table 4. Quantitative and Qualitative Analyses Types

Data Source	Analysis Types/Tests
School Demographic Data	DA—Frequency counts/distributions
	DA—Box and whiskers plots
	DA—Measures of central tendencies
Survey Demographics and Responses	DA—Frequency counts/distributions
	DA—Box and whiskers plots
	DA—Measures of central tendencies
	SA—Associations (crosstab/Phi/Cramer's V)
	Data validation—Factor analysis/Cronbach's alpha

Combined Survey and School Data	DA—Measures of central tendencies SA—Associations (crosstab/Phi/Cramer's V) SA—Comparisons (ANOVA/MANOVA) SA—Odds ratios
Case Study Interview Data	Cross-case analysis, Track III

Note: DA = descriptive analysis; SA = statistical analysis

3.1 Recruitment Timeframes

All data was collected via surveys and interviews between February and June 2020.

3.2 Quantitative Survey Results

The survey in its initial administration (Oakes et al., 2004) identified three primary factors within the high school environment related to the college-going-culture constructs: Information/Assistance, High Expectations, and Steering, with various questions contributing to deeper understanding of each factor. The first author repeated that principal factor component analysis for this administration of the survey (Holliday, 2020), and principal component analysis with varimax rotation with responses from 44 first-generation college students revealed slightly different factor breakdowns (Table 5) than in the initial administration by Oakes et al. (2004). The analysis revealed strong factor loadings for the college-going indicators, as demonstrated in Table 5, with Factor 1 questions providing insight into the students' perspectives of the attitudes or encouragement by school staff and Factor 2 questions providing insight into college-going resources available at the school.

Table 5. College-Going-Culture Factor Structure

Survey Item	*F1*	*F2*
How much did your teacher encourage you to get a job after high school?	0.68	
How much did your teacher encourage you to go to college?	0.65	
How many times did you talk to an adult at your school about how to choose the right college?	0.60	
How much did your teacher encourage you to go to a trade or vocational school after high school?	0.58	
Did your school offer resources regarding information about community colleges?	0.57	
How many times did you talk to an adult at your school about the classes or teachers you should take?	0.53	
How many times did you talk to an adult at your school about how to get into college?	0.50	
Did your high school offer workshops on college admissions test preparation?		0.72
Did you learn from a counselor about college?		0.70
Did your school offer counseling regarding courses that would prepare you for a 4-year college?		0.59
Did a counselor or teacher explain to you the classes required to attend a 4-year university?		0.42
Did anyone at your high school encourage you to go to a 4-year college?		0.52

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 6 iterations. F1 = Encouragement/Attitudes factor; F2 = Resources factor

Combined, Factor 1 (Encouragement/Attitudes) and Factor 2 (Resources) accounted for approximately 33% of the variance in survey responses. Both factor analysis and Cronbach's alpha provided assurance of internal validity and consistency of the concepts being measured. Cronbach's alpha was calculated as .74 for Factor 1 and .70 for Factor 2, demonstrating instrument reliability (Morgan, Leech, Gloeckner, & Barrett, 2013).

Although fifty-eight quantitative analyses (Table 4) were conducted, no statistically significant relationship existed among any of the responses, demographics or case assignments by a school's college-going-culture classification, nor were significant differences identified between cases. However, the statistics began to build a story about the respondents, from their family circumstances to school resources and the attitudes of school personnel they encountered.

The data revealed limited college-going interactions in high school. More than 27% of respondents never used their school's college planning center, and another 27% indicated their school did not have one. However, among those who did use such a center, 25% did so three or more times. While 14% reported never having spoken with any adult at their school about how to get into college, and 32% said they never spoke with an adult about choosing the right college, 46% reported speaking to an adult at the school three or more times about how to get into college, and 31% had three or more conversations about choosing the right college. Considered as a whole, survey data indicates that students who accessed available resources did so repeatedly, while others never sought help at all.

Despite varied responses regarding guidance personnel, other adults in the high schools actively participated in these students' college-going process. Teachers had a positive impact, with 89% of respondents believing their teachers had high expectations of them and 75% saying their teachers encouraged them "a lot" or "a great deal" to attend college. More than 84% were encouraged by someone at their school to attend a 4-year college.

3.3 Qualitative Cross-Case Findings

The study utilized Stake's (2005) cross-case analysis Track III, which allowed the development of assertions grounded in themes and factors. As Stake (2005) recommended for studies grounded in theoretical frameworks, potential themes were first identified from those frameworks, then compared for relevance to actual study data. For example, social capital theory as a guiding framework would indicate that resource access should have relevance to this study (Bourdieu, 1985). Using Stake's (2005) methodology, the survey and interview data was analyzed to determine whether resource access was indeed present. The first author read the transcripts repeatedly and made notations about key concepts or theme-related notations within the transcript margins. She compiled a case-note summary for each case, including a summary of information related to each participant within that case group, using both demographic data and information drawn from the interviews. She then reviewed the case notes and transcript margin notes multiple times, using them to complete case worksheets developed by Stake (2005) which organized key discoveries related to each case, including discoveries that appeared relevant to the previously identified themes. Utilizing this extensive notation process outlined by Stake (2005), key factors were drawn from the

interview transcripts and tied back to the themes and cases, then ranked for relevance. Five themes and six factors shown in Table 6 powerfully illuminate participant experiences by case.

Table 6. Relationships Among Highly Relevant Themes and Factors

Theme	Factors	Case(s)
The presence of personal agency as part of a student's college-going process	Access-related financial concerns, dual enrollment as access, student as decision maker, personal connection with school staff, hard work, personal responsibility for financial role in family	Low-moderate, moderate, high-moderate
Access to benefits and resources that impact the college- going culture and process experienced by a	Access-related financial concerns, dual enrollment as access, hard work, personal responsibility for financial role in family	Low-moderate, moderate, high-moderate
Role of the family and community in the development of college-going culture and the college- going process	Access-related financial concerns, student as decision maker, hard work, personal responsibility for financial role in family	Low-moderate, moderate, high-moderate
The presence of aspiration in the way a student experiences college-going culture	Dual enrollment as access, student as decision maker, personal connection with school staff, hard work	Low-moderate, moderate, high-moderate
Capital transfer/sharing that impacts college-going culture development and college-going process	Access-related financial concerns, personal connection with school staff, dual enrollment as access, student as decision maker	Low-moderate, moderate, high-moderate

3.4 Final Assertions

The final step of the analysis procedure as set forth by Stake (2005) was the development of assertions that stemmed from a comprehensive review of all collected data placed into dialogue with the framework-based themes. Assertion development began on the qualitative side with the completion of another Stake (2005) worksheet. The first author took the qualitative data into consideration in the development of these assertions, as well as the quantitative data, including the survey factors, back into play for a complete consideration of the mixed methods deployed in the study.

This final analytical synthesis resulted in the development of six assertions about the first-generation, college-going experience, as shared by the participants in this research project through survey and interview responses. It is important to note that none of these assertions occur in isolation, and that, as is explored in Assertion 6, the cross-case analysis revealed more similarities than differences among the college-going experiences, regardless of school classification. There are relationships among the assertions, particularly related to family, finances, and personal agency.

Assertion 1: A personal relationship with at least one school staff member who took an interest in the student and the student's college-going process was of major importance to college access and aspiration for every student.

Prior research using social capital theory demonstrated that schools provide capital sharing for

students without significant social capital of their own (Garcia & Ramirez, 2018; Perna & Titus, 2005). All interviewees named a staff member with whom they had a connection and acknowledged their impact on aspiration, resource access and work ethic. Participants provided examples of capital sharing, and survey results provided similar insights into school staff importance. Remembering that more than half of participants either attended high schools without college resource centers or had not used them, and many had not talked with counseling staff about courses to support college admission, it is not surprising some interviewees shared frustration with the low level of counselor support they received. Almost all said college exploration was something they did alone. One participant, Jay, believed relationships with school staff were key to accessing resources students would not have otherwise. She suggested that support was based on a student's ability to create relationships, saying "I think it more just comes down to also the student … their effort to make connections with their teachers and, like, have someone that they can go to for support." Participants acknowledged not all students, even good students, had these relationships with staff. Another participant, Xman, acknowledged a coach's contribution. His coach arranged for him to attend a college class, which helped him realize computer science was not for him, but engineering might be. While he did not initially plan to attend that college, he remembered the visit and selected that college when he had to make a last-minute change. In this example, capital transfer, beginning with an introduction, impacted a student's choice of major and institution.

Assertion 2: Dual-enrollment opportunities contribute significantly to the college-going experience, and are an important part of access to college and aspiration development.

Past research includes dual enrollment as part of a rigorous academic program that supports college-going culture, and findings recommend access for all students, regardless of academic performance (McKillip et al., 2013; Rochford et al., 2011). This concept of dual enrollment as a form of capital to which some students have access and others do not ties strongly with social capital and CCW frameworks. Every interviewee except Teresa participated in dual enrollment and said it prepared them for college-level work, reduced time in college, and saved money. Despite Teresa's good grades, no staff member told her about dual enrollment until she went to the guidance office only to find out it was missed opportunity:

> Maybe it would've affected my major. Like, maybe I would have switched, like, sooner. . . . with the credits you get, I would have went [*sic*] in with more credits than just like a regular freshman. . . . [reflecting on why her friend knew about the opportunity and she did not] I know she took, like, more honors courses than I did. So maybe they, you know, talked about it more in those other classes. . . . Yeah, I'm not sure. Maybe I didn't pay attention to the signs.

Assertion 3: Financial concerns are a significant presence within students' first-generation, college-going experiences.

Social capital theory suggests some people have access to resources that allow them to succeed, while others do not (Bourdieu, 1985). In college-going-culture research, capital access has focused on socioeconomic status and school resourcing (Aldana, 2014). All interviewees identified finances as a concern, and 73% of respondents were Pell eligible.

Every participant shared details about family finances, and financial concerns were so ingrained they guided both aspiration and college choice. Xman aspired to a service academy because he knew college would be free with his promise of military service. Others focused on early college programs, scholarships, or commuting from home to reduce costs. This tension between finances and college access is so well-recognized that high schools and colleges host financial aid events and assist students with writing scholarship essays. Although governments provide grants and loans to make college affordable, these participants had their aspirations and choices shaped predominantly not by academic ability, but ability to pay.

Assertion 4: Family and community members play a significant role in the development of college-going culture and the college-going process of first-generation students.

Research using both CCW and FoK frameworks speaks to the influence of families and communities in college-going culture development (Moll, Amanti, Neff, & Gonzalez, 1992; Yosso, 2005). Family was a significant part of the college-going story for all participants. One participant spoke about his extended family's pride in his college attendance, as many never progressed beyond middle school. Family served as a motivational support system and source of informal knowledge as parents leveraged their jobs or acquaintances to access college sporting events or learn more about other students' college experiences. Participants spoke of families setting high expectations, modeling a strong work ethic, and making sacrifices to help them achieve their dreams.

A second narrative was darker. Some participants shared family stories about failed college experiences, with those who squandered their opportunity by failing classes, wasting money, and not being able to finish. Others made the tough decision to leave college to handle family responsibilities. Those narratives spurred participants' aspirations and created a sense of responsibility for their own college financial plans.

For a first-generation student, attending college is also choosing to separate from family. The concepts of "doing more" and "going further" at the core of student aspiration in many of these cases also carry an undercurrent of becoming "better." Most of the students mentioned the difficulty their families had understanding college experiences, and the sense of isolation that created. For example, Sarah relied on her mother's help with most situations; however, the college-going process was different. She had to find others to answer her questions, and that increased in college:

> I feel like that's kind of the hardest thing because, like, my mom is kinda my best friend. So I talk to her about everything, and she's like, you know, "When you talk about your college days, I don't know what you're talking about." So it's a little hard for that.

This hearkens back to a sense of "otherness" identified in previous research. When first-generation students go to college, they become less like their families, instead of more like them as is true for legacy students (Langenkamp & Shifrer, 2018).

Assertion 5: Personal agency and aspiration play a large role in the college-going experience and are most evident in the student role as college decision maker.

Personal agency is a key component in FoK and SCCT frameworks (Lent, Brown, & Hackett, 1994; Rodriguez, 2013) and was apparent in both the quantitative and qualitative results. For example, 27% of survey respondents had spoken six or more times with someone at their school about getting into college, while 18% had six or more conversations about choosing the right college. Another 7% used their school's college planning center 6 or more times. In these examples, resource availability alone did not generate a college-going culture—it required student agency. Participant stories of online research, what-if college credit scenarios, and financial aid comparisons shared as a common thread personal agency and a willingness to undertake the necessary work. Despite varying levels of family involvement in college search activities, every participant reported being the ultimate decision maker for college choice. This deference to participants should not be construed as a lack of family interest; instead, their families trusted them to make the best decision for themselves and the family.

All spoke of aspiration, an intangible drive for this degree that would set them apart from their families. It is important to consider how the role of student as decider heralds the coming difference as students seek experiences foreign to their families. Parents framing their children as adults responsible for this decision are denoting the first break in the family relationship, from shared experience into the growing otherness. Jo best explained the tension between participants' intense connection to family and the desire to experience what they know will forever mark them as different:

> People associate me as a first-gen student and not as a scholar, and that's what I get upset with, you know? . . . I'm a scholar before I'm a first-gen student. That's how I see it. My parents' choices are what made me first gen, but my choices are what made me a scholar, and that's what I'd like to be defined as—my choices, not my parents' choices.

Assertion 6: The first-generation, college-going experience as described by participants in this study is relatively stable, with no significant differences detected among the cases.

This study identified no significant differences among participants graduating from high schools with different college-going cultures from either the quantitative or qualitative data. The participant experiences were startlingly similar, regardless of what school they attended, their Pell eligibility, or other demographics.

The primary research question asked, "How did first-generation students attending an HSI experience the phenomenon of college-going culture in their high schools and communities?" The answer is that first-generation students experience college-going culture as a complex ecosystem formed from interactions with their families, schools, and community environments, which in turn influence their internal aspiration and personal agency. Within that ecosystem, the following factors serve as either barriers or gateways to frame their college access: finances, personal relationships with school personnel, and access to dual-enrollment courses.

The quantitative data combined with participant stories created a picture of the first-generation, college-student experience through their eyes. Without both datasets, the picture would have lacked perspective of the experience as an ecosystem.

4. Discussion and Limitations

Few studies have focused on the college-going experience of first-generation students enrolled at an HSI. To date, none have utilized a mixed-methods approach within a case-study methodology. The six assertions from this study help professionals better understand the college-going-culture experience through the eyes of these participants, adding a layer of support to previous studies. Some of the findings have important policy implications within education, while others have implications for enhanced outreach programming (Holliday, 2020). The practical implications of this study include: a) the potential for powerful partnerships between secondary and postsecondary institutions that focus on the development of college-going culture within a community; b) the importance of expanded dual-enrollment opportunities for first-generation college students; c) the necessity of creating connections between students and staff members who can support their college-going experience; d) the need to meaningfully involve families in the college-going process in a manner that allows them to leverage their nontraditional knowledge; e) the requirement of honoring the students as deciders during the educational process, and preparing them for that college decision and its future consequences; and f) the urgency to address finances and affordability with both the students and their families as part of the college-going process. Any policy or program developed with these implications intentionally observed should have a meaningful impact on the college-going culture of first-generation students.

The assertions present concepts also identified in past studies as key to college-going culture development of first-generation students (e.g., Bosworth et al., 2014; Cabrera, Lopez, & Saenz, 2012; Corwin & Tierney, 2007; Gibbons & Borders, 2010; Horng, Evans, Antonio, Foster, Kalamkarian, Hurd, & Bettinger, 2013; McDonough, 1997; McKillip et al., 2013; Rochford et al., 2011). These findings call for a level playing field for all high school students by increasing access to dual enrollment and leveraging relationships. Given that strong relationships with school staff were the most impactful experience for all participants, it is hard to argue that developing these relationships should be left to students with varying levels of comfort with authority figures and ability to navigate complex systems. Schools should develop programs connecting each student with an adult as a partner in developing a pathway for the student's future. Educators must also do everything possible to connect students with dual-enrollment opportunities. Students should not have to wonder, as Teresa did, whether they lost an opportunity to get a jumpstart on college because "maybe I didn't pay attention to the [hallway] signs."

If access to a college education, and the equity of that access matters, then improving the college-going experience of first-generation students should be a priority. Given this, the sixth assertion has the most implication for additional research. Previous literature demonstrated the importance of a strong high school college-going culture (Aldana, 2014; McDonough, 1997; Robinson & Roksa, 2016). This study suggests that, although there are indeed differences in the college-going rates of graduates from different high schools, the needs of first-generation students from those schools may not be all that different. As a result, research and interventions focusing on common needs are likely to have a stronger impact on

college-going rates than efforts to define differences between the groups.

It is important to note the study sample did not include any students from a high college-going culture school, and only one survey respondent, unable to participate in interviews, graduated from a school with a low college-going culture. While this limitation may explain the lack of significant differences among the cases, the findings bring into question the practical significance of classifying a school's culture. It is also possible the factors that led students to successfully navigate the path to college would mitigate differences among their school-culture experiences. Future research should explore this question with a larger sample, potentially including participants who did not attend college and a wider range of respondents from all classifications.

This study's results aligned with the existing literature related to college-going culture in that student-staff relationships, dual enrollment, financial concerns, the importance of family and community, and personal aspiration and agency were all found to play an important role in the college-going culture experiences of these first-generation college students. However, in a finding that was somewhat divergent from past research findings, the results of this study did not identify significant differences in that experience among participants from the various high-school-culture classifications.

Practitioners may select different lessons from the first five assertions to guide their work. It is possible that the research most valuable to practitioners could focus not on what is being done differently at schools, but instead on what each student, regardless of school culture, identified as important to the college-going journey. Perhaps the most important lesson of this study is that it is from that similarity of experience that the most impactful interventions can be crafted.

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